

# Basic Services for All in an Urbanizing World



**GOLD III  
2013**



# **BASIC SERVICES FOR ALL IN AN URBANIZING WORLD**

**Third Global Report of United Cities  
and Local Governments on  
Local Democracy and Decentralization  
GOLD III**

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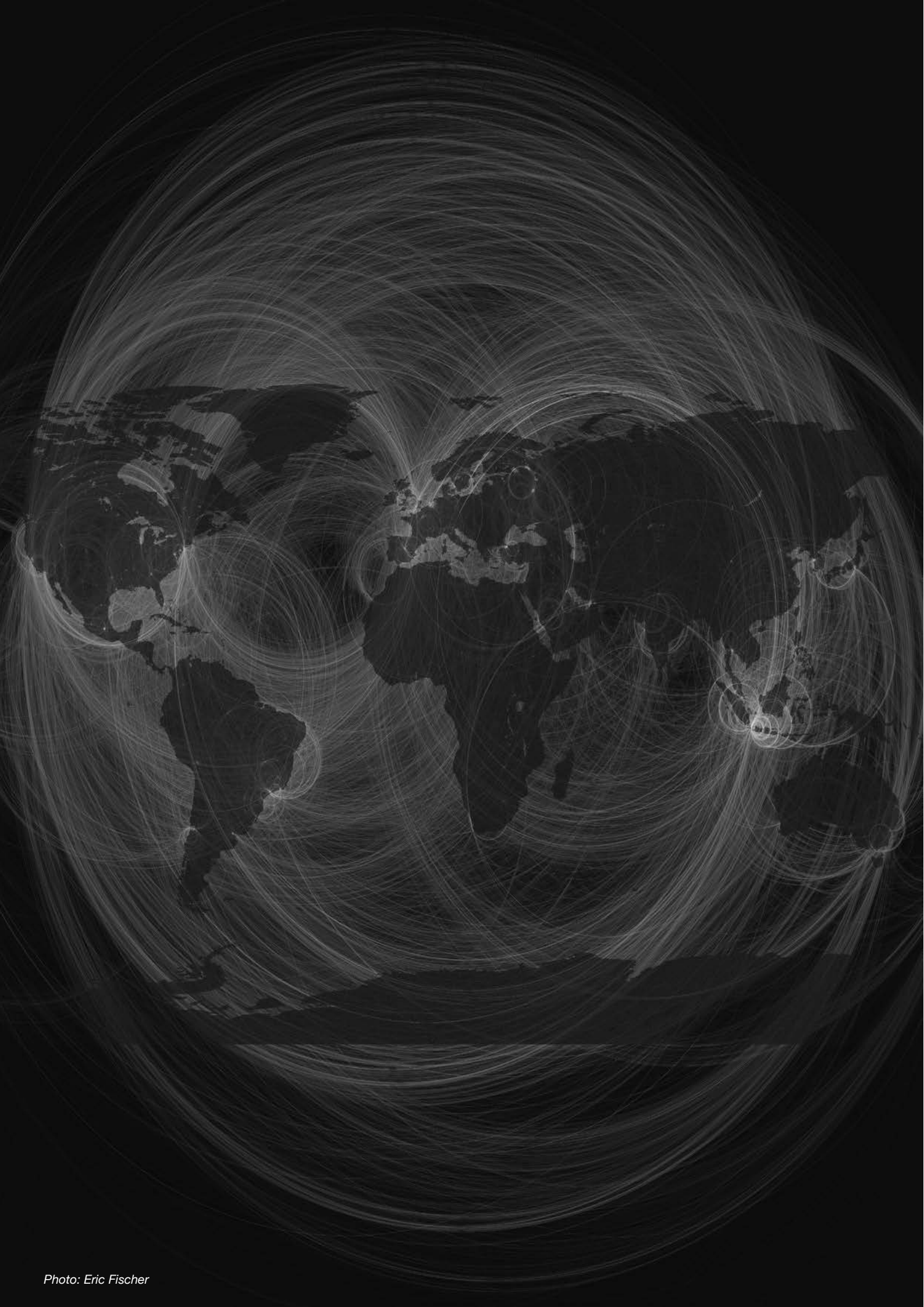




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# FOREWORD

As President of UCLG, I warmly welcome the publication of the *Third Global Report on Local Democracy and Decentralization* (GOLD III). This report on basic local service provision fulfils UCLG's commitment to present a review of the state of local democracy and decentralization across the world every three years. As a member of the Secretary-General's High-Level Panel of Eminent Persons on the Post-2015 Development Agenda, I am certain that GOLD III will make a unique contribution to international debates on the Millennium Development Goals, the Post-2015 Development Agenda, and the Habitat III Global Urban Agenda.

Basic services are essential, not only for the preservation of human life and dignity, but also in driving economic growth and ensuring social equality. 'Putting people first' therefore implies putting basic services first. In this light, GOLD III should be taken as a call to action.

The report makes clear that, while there has been progress in service access and quality, huge gaps in provision remain and access rates are even falling in some cities in Sub-Saharan Africa and South Asia. In addition to existing access deficits, rapid urbanization and demographic and environmental changes are posing radical new challenges that make significant increases in investment in basic service infrastructure necessary. The global urban population will grow by around 1.4 billion people over the next 20-30 years. These new urban residents will need access to drinking water, sanitation, housing, waste collection, transport, and electricity. There are already nearly a billion slum-dwellers who have limited or no access to many basic services. A failure to address the urban access issue will have serious repercussions for human wellbeing, environmental sustainability, and economic development.

GOLD III serves as a warning, but, at the same time, it offers a way forward. Local governments, as the level of government closest to the people, are particularly well-placed to guarantee universal access to quality basic services. This report demonstrates that improvements to basic services are positively correlated with local government involvement in their provision. Local governments are willing and able to rise to the challenge of providing basic services, but they need the human, technical and, above all, the financial resources to do so.

GOLD III highlights the common challenges that local governments across the world face in balancing the financial sustainability of services with affordability for their residents, particularly the urban poor. Strengthening the capacity of local governments is essential to reducing access deficits. GOLD III showcases examples of where decentralized management, improved efficiency, along with a better mobilization of local resources and a more targeted use of subsidies, have contributed to expanding access in a sustainable way.



A central recommendation of GOLD III is that national governments and international institutions should prioritize the financing of basic services, especially in low and lower-middle income countries where the gaps between required investment and current resources are widest. The long-term horizons of infrastructure investments require concessional loans of a nature that can only be provided with the direct financial involvement of national governments and multilateral organizations. Another significant proposal of GOLD III is that international organizations facilitate local government's direct access to global financing mechanisms.

The report also draws attention to the fact that the effective management of basic services requires closer cooperation between local authorities and other levels of government; improved vertical and horizontal coordination between local, regional, national, and international institutions is necessary. Effective multi-level governance requires institutional and legal frameworks that clearly define the roles and responsibilities of all levels of government, guided by the principle of subsidiarity.

GOLD III recognizes the ways in which various stakeholders, including the private sector and civil society organizations, act in partnership with local governments to provide basic services. The report acknowledges the diversity of opinions about Public Private Partnerships (PPPs), and explores the conditions necessary for their success. Above all, it emphasizes the need for local governments to be empowered with decision-making, management and oversight capacities so that they can collaborate effectively and hold their external partners to account.

Finally, as Mayor of Istanbul, one of the oldest metropolises in the world, I wholeheartedly support GOLD III's call for a more holistic vision of urban development. Basic service infrastructure should accompany and guide the spatial planning of cities and regions, and urban planning must engage all stakeholders, including those living in informal settlements, to monitor and improve access.

I call on international institutions, national governments, and civil society organizations to take on board the messages of GOLD III and to engage in dialogue with local governments on the best ways to respond to the immense challenges we face in guaranteeing universal access to quality basic services over the coming decades. Together we can build "the future we want": an environmentally sustainable future in which human dignity, economic development and social justice are enjoyed by all.



Dr. Kadir Topbaş  
Mayor of Istanbul  
President of UCLG



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# I. INTRODUCTION

David Satterthwaite

Progress in local democracy must be measured in terms of improvements to quality of life. After all, local governments are ultimately judged on their ability to meet the needs of their citizens. Basic services are fundamental to improving living standards and, in general, local governments have the responsibility for their provision. Even when local government institutions are not officially assigned responsibility for basic service provision, they often deal with the health, economic, social and environmental consequences of unmet basic needs. Improving the delivery of basic services has been a key component of the Millennium Development Goals (MDGs), which aim to eradicate extreme poverty worldwide. The issue of basic services will also be central to the Post-2015 Development Agenda. With this in mind, United Cities and Local Governments (UCLG) has dedicated this Third Global Report on Local Democracy and Decentralization (GOLD III) to reviewing the current state of basic local service provision across the world.

The report examines the provision and governance of local basic services across seven regions of the world. It describes gaps and deficiencies in access, and seeks to draw conclusions and propose solutions about how to address them. It places a particular focus on the actual and potential role of local government in guaranteeing universal access to quality basic services.

## What are basic local services?

As GOLD I demonstrated, local governments throughout the world tend to have responsibility for a number of basic services

(see Box 1.1). The UN Habitat Agenda provides the following definition of local basic services:

*“Basic infrastructure and services at the community level include the delivery of safe water, sanitation, waste management, social welfare, transport and communication facilities, energy, health and emergency services, schools, public safety, and the management of open spaces.”<sup>1</sup>*

The services included within this definition can be organized into the following three categories:

- Basic infrastructure services: water and sanitation, waste collection and management, transport, energy.
- Social services: education, health, housing, and elderly and child care.
- Quality of life services: public safety, urban planning, culture and entertainment, sport, public spaces.

While the second category also includes services that are fundamental to human development, the services in the first group form the foundation on which human settlements are built and function. Everyone needs water, a toilet, energy, and a way to dispose of household waste and to get from place to place. Thus, this report focuses on the following local services:

- Potable water delivery;<sup>2</sup>
- Sanitation, including the collection, treatment and disposal of waste water and runoff;
- Solid waste management, including collection, disposal and recycling<sup>3</sup>
- Urban transportation;<sup>4</sup>
- Energy<sup>5</sup> (usually electricity)

<sup>1</sup> UN Habitat Agenda Goals and Principles, Commitments and the Global Plan of Action Article 84, New York, 1996.

<sup>2</sup> The report focuses on the management and distribution of potable water for domestic purposes. It does not address the management and protection of resources or supply of water for agricultural or industrial purposes.

<sup>3</sup> See international reference texts on the definition of locally managed domestic waste. Domestic waste is distinguished from industrial waste and hazardous hospital waste, where management is often a national responsibility. Also see reference on methods of waste treatment (landfill, incineration, recycling and composting, etc.).

<sup>4</sup> The report focuses on system management and the regulation of public transport and related urban infrastructure (train stations and terminals). In some countries or regions, the management of urban roads is also included.

<sup>5</sup> Energy is not often a local responsibility, but local management of energy distribution is an important debate in some countries and regions. Furthermore, the issue of energy conservation has implications for transport, waste and water services.



### Box 1.1 Main local government responsibilities across the world

**Services:** water distribution, waste water and solid waste collection, public transport, street lights, cleaning of streets, markets and public places, public toilets, pollution control, public/environmental health, some aspects of child care and schooling, libraries and cultural activities, some forms of social welfare provision (usually shared with higher authorities), fire services and disaster response (usually shared with higher authorities), registration of births and deaths, monitoring for infectious diseases, cemeteries, and, in many countries, health, education, housing and policing.

**Infrastructure:** water piped distribution, sanitation, storm and surface drainage, local roads, paths and bridges, solid waste disposal facilities, waste water treatment, bus terminals, parks/squares/sports facilities/public spaces.

**Buildings:** building regulation, maintenance of public buildings, regulations for rental accommodation.

**Urban planning:** land-use management and the application of land-use regulations, plans for the expansion of infrastructure.

**Other:** local economic development, tourism.

Because citizens' needs are diverse and evolving, flexibility has been allowed for this core group of services to be modified according to the unique context of each region. The Asia Pacific chapter makes reference to slum upgrading and risk prevention; the Eurasia chapter covers heating; the North America chapter covers broadband services, as does the chapter on Europe, which also explores child and elder care services. The Latin America chapter includes a discussion of urban security and the increasing role of local governments in building safer cities. Furthermore, while the report is based in an analysis of these basic service sectors, its aim is to contribute to a holistic vision of basic local service provision. After all, local governments are often confronted by political, social, economic and environmental challenges

that cannot be adequately tackled by isolated, single sector interventions.

There are significant differences in the extent to which the responsibilities for providing basic services are allocated between levels of government, as well as in the actual roles that local governments play on the ground, whether as service funders, managers, providers or supervisors, whatever their official responsibilities. In some countries, local governments are still considered organs of the central state, meaning they work under the direction of central governments, in some cases without any legally recognized independent authority. In most instances, however, local authorities play at least some role in these services, whether in urban infrastructure planning, land use management, revenue raising,

service provision or oversight. There is, in short, a wide range of ways that well-functioning local governments can contribute to improving basic services and, consequently, the quality of life of their residents.

### The scope of GOLD III: basic local services in context

The seven regional chapters of this report explore a set of common issues that shape the provision of local basic services. Each regional report describes the roles of each level of government and, in particular, the conditions necessary for local governments to be able to fulfil the responsibilities

local governments and the extent of political and fiscal decentralization in the field of local basic services. Basic services are anchored in particular geographic locations and have to respond to a range of local realities. There is therefore a strong case for the decentralization of authority over many basic services, in line with the principle of subsidiarity: decisions are made by the lowest level of government that is able to make them effectively.

In decentralized systems, local governments are vested with powers to organize the provision of basic services. They are



#### Box 1.2 The concept of decentralization<sup>6</sup>

In this report, decentralization is understood as the existence of:

- **Local authorities**, distinct from the state's administrative authorities, who have
- **a degree of self-government**, elaborated in the framework of the law, with their own powers, resources and capacities to meet responsibilities and with legitimacy underpinned by
- **representative, elected local democratic structures** that determine how power is exercised and that make local authorities accountable to citizens in their jurisdiction)

assigned to them. The chapters examine the relationship of local governments with national and regional levels of government, the private sector and civil society. There is a special focus on the question of how to guarantee a minimum level of service to all, while, at the same time, ensuring the financial and environmental sustainability of services. Each report ends with policy recommendations that aim to achieve these goals in the context of the existing and emerging challenges in the region.

**Institutional and legal frameworks:** Particular attention is given to the role of

considered as the 'organizing authority' of such services. An organizing authority is a public or publicly-owned body with legal and political responsibility to plan or regulate services in a specified area.<sup>7</sup> It determines the ownership model, level of competition, and sets accessibility, affordability, technical and environmental standards.

**Access:** The latest data on the coverage and quality of basic local services are reviewed, as well as the disparities between countries and within them. In some cases, this task is complicated by a lack of reliable or comparable data, or controversies

<sup>6</sup> Extracted from UCLG, Decentralization and Local Democracy in the World, 1st GOLD Report, Washington, World Bank, 2008.

<sup>7</sup> Definition from ISO 24510 standard for water and waste water: "the responsible authority is the entity that has the overall responsibility for providing the service to the population in a given geographic area." See also: <http://www.uitp.org/public-transport/organising-authorities/>



around how to define ‘adequate’ service standards. For example, in high-income (and many middle-income) countries, adequate provision for water is defined as drinking quality water piped into each home 24 hours a day. However, the only global dataset on water provision<sup>8</sup> only indicates the proportion of residents with water piped to their premises and the proportion with ‘improved provision.’ This includes public taps or standpipes, tube wells or boreholes, protected springs, protected dug wells or rain-water collection. Those with access to just a public tap or standpipe are still classified as having ‘improved provision’ even when fetching water involves long queues, sporadic availability, punishing loads and often undrinkable water. There are comparable problems for sanitation. In high-income (and many middle-income) countries, adequate sanitation is understood as a water-sealed toilet (WC or pour-flush) in each home with provision for the safe collection and treatment of waste water. The only indicator available globally defines ‘improved provision,’ which includes, without disaggregation, pour-flush to a piped sewerage system, septic tank or pit latrine, ventilated improved pit latrines, pit latrines with a slab and composting toilets.<sup>9</sup> Another data issue is the reliance of national governments and international agencies on sample surveys that reveal the proportion of the urban or rural population with services but do not break down the data any further. Information on local inequalities in provision is thus very limited. Census data is rarely available to local governments in a form that makes it possible to locate where provision is deficient. Such surveys are aimed at national governments and international agencies, rather than at the local governments responsible for provision.

Despite data limitations, the scale of the differences in the quality and extent of provision of basic services across the world is evident. In high- and some middle-income

countries, all, or nearly all, of the population is well-served. In most middle-income countries, the proportion of the population with access to basic services increased significantly between 1990 and 2010. However, in low- and some middle-income nations, half or more of the population still lacks provision. In 2010, in sub-Saharan Africa, only 16% of the population had water piped to their premises – a 1% increase from 1990. In Southern Asia, the figure was 25% in 2010, up from 20% in 1990.<sup>10</sup> Even with the low standards set for ‘improved provision’ of sanitation, only 30% in sub-Saharan Africa and 41% in South Asia had access to such services in 2010. 41% and 25% still relied on open defecation in South Asia and sub-Saharan Africa, respectively.<sup>11</sup>

**Management and finance:** The design and implementation of management and financing models are analysed. Management models include direct public provision, privatized provision and public-private partnerships, public-NGO and public-community partnerships. Where provision is not provided directly by the public sector, a focus is given to the capacity of local governments to provide oversight of external operators, and to ensure appropriate tendering, monitoring, enforcement and sanctioning of contracts.

In terms of financing, chapters examine the extent to which local responsibilities are accompanied by fiscal decentralization (particularly local powers over taxes and service tariffs). They also review financing from the ‘3Ts’, a framework of the sources of funds for services initially developed by the OECD to ensure sustainable funding in the water sector, but applicable to any public service. The 3Ts categorize the main sources of funds for basic services as: Tariffs paid by service users, Taxes (local or national) paid by

<sup>8</sup> UNICEF and WHO, *Progress on Drinking Water and Sanitation; 2012 Update*, Joint Monitoring Programme for Water Supply and Sanitation, 2012.

<sup>9</sup> UNICEF and WHO, 2012.

<sup>10</sup> UNICEF and WHO, 2012.

<sup>11</sup> UNICEF and WHO, 2012.

citizens and distributed through governmental subsidies, and Transfers from foreign donor agencies. In addition to the 3Ts, bank loans, bonds or investments by private operators are also examined as important financing instruments that help to bridge gaps in cash flows. However, given the fact that they must be repaid, these are not funding ‘sources’ in the same way as the 3Ts. The role of service tariffs and subsidies in guaranteeing access to the poor is also considered.

**Existing and emerging challenges:**

Each chapter draws out the main factors that are currently constraining optimal service provision, as well as the economic, demographic, and environmental challenges (such as climate change and disaster prevention) that are likely to have an impact on basic services in the near future.

**Case studies:** In each of the regional chapters, for every challenge in the field of basic services, examples are given of innovative solutions from local governments and their partners. Cases of both success and failure can be valuable learning tools for local governments across the world.

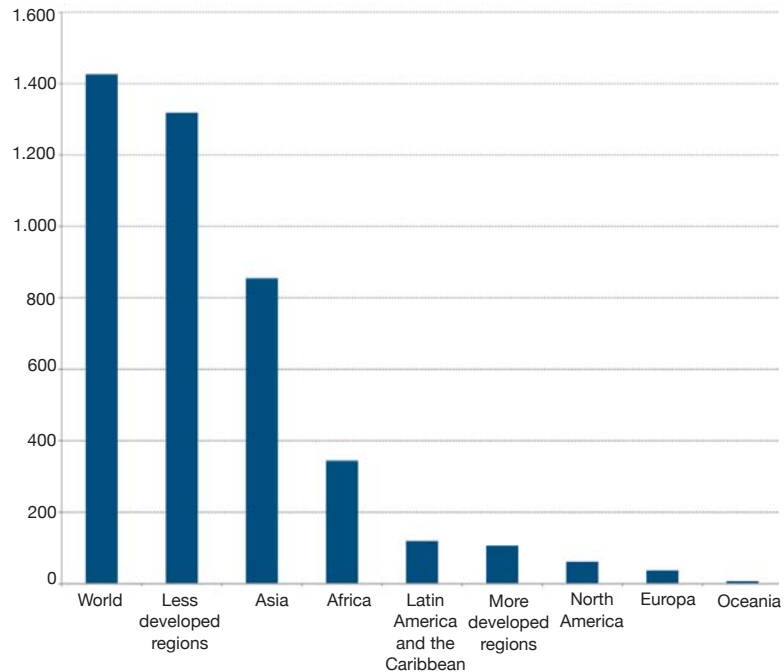
**Basic service provision in an urbanizing world**

GOLD III places a particular emphasis on urban areas and the challenges presented to basic service provision by the rapid pace of global urbanization. Over the last few decades, some metropolitan governments have had to respond to a more than twenty-fold growth in population; in some cities, there has been more than a hundred-fold increase. In high- and upper-middle income countries, most of the population (and economy) is already based in urban areas. However, an urban focus is also relevant to low- and middle-income countries, which are currently undergoing rapid urbanization. UN projections suggest that almost all the growth in the world’s population over the next few decades will be in urban areas, almost all of it in today’s low- and middle-income countries (see figure 1.1).<sup>12</sup>

A defining influence on the global future will be the extent to which the vast backlog in basic service provision in urban areas is addressed, and whether national and sub-national governments are able to provide basic services to the world’s 1.4 billion new urban-dwellers.

<sup>12</sup> United Nations, *World Urbanization Prospects: The 2011 Revision*, Department of Economic and Social Affairs, Population Division, New York, 2012: <http://esa.un.org/unpd/wup/index.htm>.

**Figure 1.1: Projected increase in urban populations 2010 to 2030  
(millions of inhabitants)**



Source: United Nations (2012).<sup>13</sup>

This report considers as ‘urban’ all settlements defined by their national governments as such. In some countries, this includes centres with a few hundred inhabitants, while in others, only settlements with thousands of inhabitants are considered as urban. Unfortunately, these definitional differences make international comparisons difficult, for instance, India would be considered predominantly urban (rather than 30% urbanized) if it used Sweden’s or Peru’s urban definition.<sup>14</sup> Rates of urban vs. rural service access in this report should, therefore, be interpreted with care.

The ability of governments to cope with urbanization has profound implications for basic service provision and for whether or not international goals and targets for access and quality are met. This does not mean that basic service provision is less important in rural areas. Even in an urbanizing world, more than two-thirds of the

population in most low-income countries is rural, and some of the greatest deficiencies in basic service provision are found in rural areas. However, there are significant differences in the forms of service provision and institutional arrangements that are appropriate for urban contexts and those that are suited to rural areas. Furthermore, urban populations have distinct characteristics and needs.

Large, densely populated urban settlements require different kinds of services for water, sanitation, solid waste collection and management and public transport. For instance, protected wells and pit latrines can provide good quality water and sanitation provision in many rural contexts but are totally inadequate in most large cities. The UN system’s failure to recognize such differences in, for example, its definition of ‘improved sanitation’, means that official statistics can seriously overstate the quality of provision in urban areas.

<sup>13</sup> United Nations, 2012. Note that during this period, projections suggest that rural populations will not grow.

<sup>14</sup> David Satterthwaite, “Urban myths and the mis-use of data that underpin them”, p.83-99, Jo Beall, Basudeb Guha-Khasnobis and Ravi Kanbur (editors), *Urbanization and Development: Multidisciplinary Perspectives*, Oxford University Press, Oxford, 2010

There are also differences in the populations served by urban and rural governments. Cities often include dense concentrations of poor residents living in informal settlements. The lack of infrastructure provision to these settlements can be a challenge but, in many places, the urban poor have also organized and worked with local governments to provide solutions. Many of the social reforms that transformed the living conditions and health of low-income populations in cities in today's high-income countries were responses to the demands of organized urban poor groups in the 19<sup>th</sup> century. Today, organizations and federations of slum-dwellers<sup>15</sup> and other low-income groups (such as self-employed women and waste pickers) are taking on a similar role in low- and middle-income countries.<sup>16</sup>

## Governance and multi-level governance

### Governance

As well as examining the role of government in service provision, GOLD III seeks to explore the nature of the relationships between levels of government, and between governments, the private sector, and civil society, i.e. the 'governance' of local basic services. The concept of governance includes the mechanisms, processes and institutions through which citizens, civil society and the private sector articulate their interests, exercise their legal rights and meet their obligations.<sup>17</sup>

Discussions of development for low- and middle-income countries since the 1980s have often made reference to the concept of 'good governance'. A focus on good governance widens the scope of enquiry from institutional and legal considerations to include accountability and transparency, checks on corruption, and scope for citizen participation in decision making and service provision.

The idea of good governance was first used by aid agencies and development banks with reference to national governments, with little attention to how it applied to local governments. However, good local governance played a central role in improving basic services in what are today's high-income countries; in much of Europe, more effective municipal government was able to widen the quality and coverage of basic services dates from the late 19<sup>th</sup> or early 20<sup>th</sup> century.<sup>18</sup> More recently, improvements in basic service provision resulting from democratization, decentralization and greater accountability and transparency in many countries, as will be seen in this report, have been a reminder of the importance of good governance at local level.

There is great diversity in the stakeholders involved in the governance of local basic services. The private sector alone ranges from individual entrepreneurs selling water in informal settlements to large multinational corporations working across the water, sanitation, solid waste management and public transport sectors. Civil society is equally diverse, including trade unions, NGOs, grassroots organizations, from small savings groups to national federations of slum-dwellers, and residents, professional and business associations. Civil society groups represent a range of (often competing) interests and priorities and they, too, can apply 'good governance' principles to their own operations.

### Multi-level governance

As noted previously, the essentially 'local' nature of basic services, together with the principle of subsidiarity, suggests a primary role for local governments in the governance of basic services. Nevertheless, these services are governed within complex systems in which authority is held at multiple levels. The principles of decentralization and subsidiarity, therefore, will only

<sup>15</sup> This report uses the term 'slum' alongside 'informal settlements'. While the word 'slum' has historically been pejorative, it has recently been reclaimed by the residents of informal settlements themselves, who have organized in self-proclaimed 'slum-dweller' federations. The term 'slum' is also used for global estimates of housing deficits collected by the United Nations. For a discussion of more precise ways to classify the range of housing sub-markets through which those with limited incomes buy, rent or build accommodation, see *Environment and Urbanization* 1 (2) October (1989), available at <http://eau.sagepub.com/content/1/2.toc>.

<sup>16</sup> See <http://www.sdinet.org/>; also David Satterthwaite and Diana Mitlin, *Reducing Urban Poverty in the Global South*, Routledge, London, 2014.

<sup>17</sup> UNDP, *Governance for sustainable human development*, United Nations Development Programme, New York, 1997

<sup>18</sup> Peter Clark, *European Cities and Towns 400-2000*, Oxford University Press, Oxford, 2009.



function within an effective ‘multi-level governance’<sup>19</sup> system. According to Marks and Hooghe, multi-level governance “emerges when experts from several tiers of government share the task of making regulations and forming policy, usually in conjunction with relevant interest groups.”<sup>20</sup>

Even in systems in which local governments are the organizing authorities for basic services, other government actors and external stakeholders are usually involved in some aspect of their regulation, financing, management or delivery. For example, urban transport infrastructure may be financed and managed by metropolitan governments rather than individual municipalities. In the European Union, shared governance between the European Commission, Member States and local governments has become important in standard-setting, financing and procurement regulation. As well as vertical coordination, the concept of multi-level governance includes various forms of horizontal collaboration; local governments may decide, for example, to partner with neighbouring municipalities to provide services. This may be motivated by the identification of shared goals and interests, or used as a way to more efficiently manage limited resources by creating economies of scale, as is often the case for landfills or water treatment plants. The implication of multi-level governance, then, is that, even in a report focused on local government, a full exploration of basic local services requires a consideration of the effectiveness of the relationships between public, private and civil society stakeholders at local, national, and international level.

### The role of the private sector in basic service delivery

As shown throughout the report, private sector participation in basic service governance can take a range of forms, with asset ownership, capital investment, commercial

risk, administration and contract duration varying widely (see Table 1.1 on private sector participation in water and sanitation services). This section provides a brief outline of some of the most important models of private sector participation.

At its most extreme, privatization or divestiture involves the transfer of ownership of the service or its infrastructure from the public to the private sector. However, most private sector involvement takes the form of a ‘public private partnership’ (PPP) in which roles and responsibilities are shared between the public and the private sector.

Even in the case of divestiture, public bodies may maintain supervisory authority over prices and quality. A private company may buy equity in a government-owned enterprise and take over service management with some degree of control over investment, but the government generally retains some indirect control and regulation by means of granting licenses to deliver services.<sup>21</sup>

Other models of private sector participation do not involve asset transfer. At its simplest, a private operator may be given a contract by the organizing authority for specific public works – for instance, building a public toilet or set of standpipes. This may involve a competitive bidding process.

Build-Operate-Transfer (BOT) is one of the most common forms of PPP. Under these agreements, generally the local government delegates the building, operation and maintenance of infrastructure (e.g. piped water or sewers) to a private enterprise for a specified period, during which it raises the funding and retains the revenues. The private partner manages the infrastructure, with the government purchasing the supply. At the end of the contract, the assets are generally transferred back to the government. BOT schemes are common for Greenfield projects such as a water

<sup>19</sup> There is no universally accepted definition of multi-level governance. The OECD defines multi-level governance as the explicit or implicit sharing of policy-making authority, responsibility, development and implementation at different administrative and territorial levels. OECD, *Water Governance in OECD Countries; A Multi-Level Approach*, OECD Studies on Water, OECD Publishing, Paris, 2011. In the context of the European Union, “the Committee of the Regions sees the principle of Multilevel Governance as based on coordinated action by the EU, the Member States and regional and local authorities according to the principles of subsidiarity and proportionality and in partnership, taking the form of operational and institutionalized cooperation in the drawing-up and implementation of the European Union’s policies” (CdR 273-2011 fin)

<sup>20</sup> Rod Hague and Martin Harrop, *Comparative government and politics: an introduction*, p. 282, Palgrave Macmillan, Basingstoke, 2007.

<sup>21</sup> <http://ppp.worldbank.org/public-private-partnership/agreements/full-divestiture-privatization>

treatment or waste water treatment plants, often built on government-provided land.

A variation on BOT is BOOT, Build-Own-Operate-Transfer – where the private enterprise owns the infrastructure until the concession period ends. There is also BOO – Build-Own-Operate, where the private enterprise retains ownership of the assets. Under concession contracts, the private contractor takes over management of the utility and invests in maintenance and

contracts are similar, but the private operator takes responsibility for operation and maintenance, including billing, revenue collection and user services. In both cases, the operator collects the revenue but, under an *affermage*, the contractor is paid an agreed-upon fee (e.g. for each unit of water produced and distributed). Under a lease, the operator pays a lease fee to the public sector and retains the remainder. Service contracts are usually short-term agreements whereby a private contractor takes

**Table 1.1: Models of private sector participation in water and sanitation provision**

|                                | Service contract | Management contract | Affermage  | Lease      | Concession  | BOT-type         | Divestiture |
|--------------------------------|------------------|---------------------|------------|------------|-------------|------------------|-------------|
| <b>Asset ownership</b>         | Public           | Public              | Public     | Public     | Public      | Private / public | Private     |
| <b>Capital investment</b>      | Public           | Public              | Public     | Public     | Private     | Private          | Private     |
| <b>Commercial risk</b>         | Public           | Public              | Shared     | Shared     | Private     | Private          | Private     |
| <b>Operations/ maintenance</b> | Private / public | Private             | Private    | Private    | Private     | Private          | Private     |
| <b>Contract duration</b>       | 1–2 years        | 3–5 years           | 8–15 years | 8–15 years | 25–30 years | 20–30 years      | Indefinite  |

SOURCE: Budds, Jessica and Gordon McGranahan (2003) <sup>22</sup>

expansion at its own commercial risk. Concessions have longer terms than most forms of contract to allow the operator to recoup its investment. At the end of the contract, assets are either transferred back to the state or a further concession is granted. The role of the government is predominantly regulatory.

Under a management contract, the government transfers certain operation and maintenance responsibilities to a private company but retains responsibility for investment and expansion. Payment is either fixed or performance-related. Lease and *affermage*

responsibility for a specific task, such as installing meters or collecting bills for a fixed or per unit fee. There are also joint ventures where a utility company, formed by the private company and the public sector, with participation of private investors, takes a contract for utility management.

While PPPs usually take the form of contracts between a government body and a private company, the term ‘partnership’ more generally refers to mutually shared objectives and working arrangements that go beyond the fulfilment of any contractual agreement.

<sup>22</sup> Jessica Budds and Gordon McGranahan, “Are the debates on water privatization missing the point? Experiences from Africa, Asia and Latin America”, *Environment and Urbanization*, 2003, Vol. 15, No. 2, pages 87–114.

Private sector provision depends on adequate returns (or expected returns) on investment. This is easier to achieve where demand is strong and tariffs are easily collected, or where public budgets pay for private provision. However, there is great diversity on both the demand side (many service users have limited capacity to pay) and the supply side (there are sometimes large deficits in infrastructure and very limited city budgets).

### The methodology of GOLD III

GOLD III is unique in its global scope, having drawn on the expertise of both regional and local practitioners, politicians and academics over the three years of its preparation. The report is organized into seven regional chapters in line with the regional structure of United Cities and Local Governments. Each of the regional chapters was prepared by one or more authors, all of whom have worked extensively on basic service issues. Each chapter draws on questionnaires sent to national associations of local authorities and on interviews with elected local government representatives. In Latin America, there were 238 questionnaire responses from 19 countries, including 29 from metropolitan governments. In Eurasia, questionnaires went to cities in all countries; 41 completed questionnaires were returned, 25 of them by mayors. For Asia and the Pacific, a survey covered 98 city and municipal mayors and 39 heads of basic public service departments in 15 countries. In Europe, local government associations and cities from 28 countries answered the questionnaire or contributed to the country sheets. In North America, the Federation of Canadian Municipalities (FCM) used a former survey of its municipal members to determine the state of their roads and water and wastewater systems. Of 346 municipalities surveyed, 123 responded, and these represented approximately half of the Canadian population. For the USA, a National League of Cities (NLC)

survey focused on the adequacy of the local infrastructure to meet a municipality's current population needs and received responses from 232 municipalities. Draft chapters were presented at regional workshops in early 2013 to gather and integrate the experiences of more than three hundred practitioners, academics, and representatives of local and regional authorities and their national associations from 80 countries.

This report offers a synthesis of the evolution of the governance of basic services across the world over the last decade. In some regions, authors were faced with shortages or inadequacies in data and information which have not always been possible to overcome, particularly in relation to the financing of basic services. In regions where information and analysis are more plentiful, the challenge has been to sacrifice detail and diversity and to draw out the main, cross-cutting commonalities and trends. All chapters present conclusions on the main challenges to service provision in the region, as well as recommendations for the improvement of basic services now and in the future.

On the basis of the conclusions and recommendations of the regional chapters, the global conclusions chapter summarizes the trends and challenges that emerge across the world regions, and attempts to draw out lessons on governance, management, financing and partnership models. The conclusion then reaffirms the importance of basic services and the active participation of local governments to the achievement of the MDGs and the formulation of the post 2015 global development agenda. Finally, a set of policy recommendations are addressed to relevant stakeholders (local, national, and international governments and institutions, the private sector, and civil society) with the aim of improving access to quality basic services for all.

**//  
Basic services  
are essential  
for the  
preservation  
of human life  
and dignity. //**

Dr. Kadir Topbaş  
Mayor of Istanbul  
President of UCLG







II.

# AFRICA



**Dr. Michael Sutcliffe and Sue Bannister**

*City Insight (Pty) Ltd*





Photo: Julien Harneis

## 2.1 Introduction

This chapter focuses on the provision of basic services in cities in Africa and the role that local government plays in their governance. While the majority of African people still live in rural areas, urban service provision is a significant challenge for many local governments and, given the huge demographic transformation that the continent faces, this challenge will only grow over coming years.

Africa's population is expected to more than double by 2050 to around 2 billion (20% of the global population). By then, Africa's population will surpass that of India (1.5 billion) and China (1.4 billion). Between now and 2050, the urban population will increase threefold, from around 400 million people to around 1.2 billion. Africa's future is urban, as is the case elsewhere in the world (see figure 2.1).

The pace of urban growth in Africa is unprecedented in history. It took 150 years (5 generations) for the majority of the population of Europe to become urban; it is taking only 60 years (2 generations) for Africa to travel the same journey. Despite the rapid pace of urbanization, most African urbanites live in cities of less than 0.5 million inhabitants.

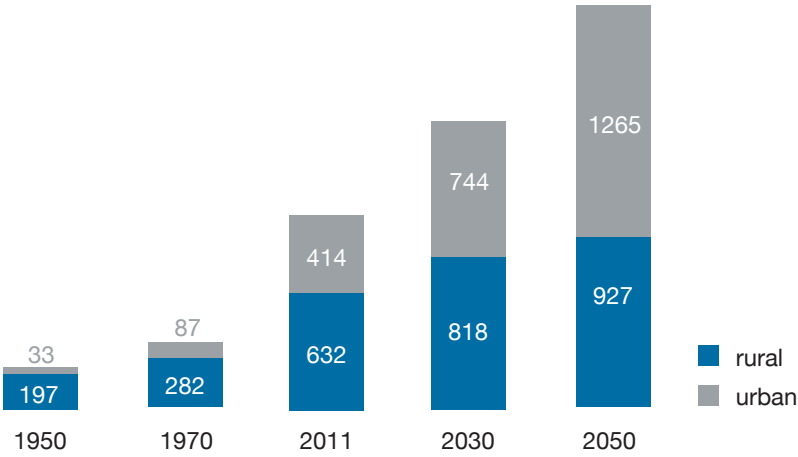


**Africa's population is expected to more than double by 2050.**

Figure 2.1 Africa's total rural and urban population in millions, 1950-2050



Urban growth often takes the form of informal settlements and slums.

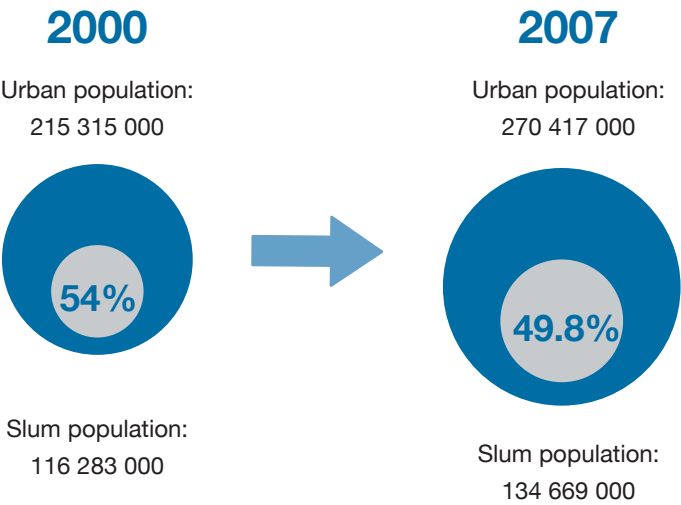


Source: United Nations (2012).

What is characteristic of African cities is that urban growth often takes the form of informal settlements and slums. The scale of the growth in slums is quite staggering. From 2000 to 2007, the percentage of people living in slums in urban areas actually declined from around 54% to just less than 50% (see figure 2.2). Yet, over that

same seven year period, the total number of people living in slums increased from around 116 million to around 135 million. Clearly, while there may be efforts to fast-track urban development to accommodate the rapid growth in urban population, the rate at which this is happening is not fast enough.

Figure 2.2 Increase in urban and slum populations 2000-2007



Source: United Nations (2008).

Hundreds of millions of urban Africans are known to have very poor access to basic services. However, the problem is even larger than formal figures indicate, since many informal settlements are not properly counted during censuses. This backlog in basic services affects businesses as well as residents. Many African businesses cite inadequate provision of electricity, water, sanitation and transport as major constraints on business growth, attractiveness and competitiveness.

The scale of investment required in basic service infrastructure amounts to around USD 90 billion per year for the coming 20 years, and most of this sum will have to come from internal resources. Yet, the total amount invested by both the World Bank and the Africa Development Bank in the sector is less than USD 8 billion and USD 0.5 billion per year, respectively. The sustained growth of African economies during the last ten years suggests that the challenge could be met, but only if service delivery is prioritized in national and local policies. This requires, in particular, a change in the negative attitudes towards informal settlements held by officials and politicians.

Of the eight MDG goals, only one (Goal 7: Ensuring environmental sustainability) directly focuses on the improvement of the basic services. However, every single one of the eight goals is actually affected by the lack of adequate service in water, sanitation, transport, roads, electricity and solid waste. Improving health, welfare, education

and the environment are all dependent on improving these basic services. The goal on women's empowerment is very closely linked to basic services, which have the capacity to liberate them from time spent finding wood for fuel, fetching drinking water, and managing household waste. It is through access to basic services that women can find time to enter the economic, social and political spheres, thus be empowered to become active stakeholders in civil society. Finally, basic service provision is crucial to the functioning of economic activities, an essential element in the attractiveness of cities and regions and the competitiveness of local businesses.

Basic services are local by nature – serving local people, responding to local conditions, and dependent on local infrastructure. They should from a practical perspective be entirely or at least partially the concern of local authorities. The extent to which local governments are responsible for the governance of network basic services in Africa is the main focus of this chapter.

Four key issues are addressed here:

- the institutional framework under which basic services are provided;
- policies of access and their implementation;
- the management and financing models used to deliver basic services;
- key challenges and emerging issues pertaining to basic service provision in African cities.



**African businesses cite inadequate provision of electricity, water, sanitation and transport as major constraints on business growth.**





Photo: Jeff Attaway

## 2.2

# Institutional frameworks for basic services in African cities

### Definition of roles and responsibilities in basic service provision

In Africa, the institutional frameworks for basic service provision are not yet stable. This is because African states are still young in institutional terms. Their institutions have been largely a colonial legacy, and only recently has there been an effort to customize these institutions to the social and cultural realities of the continent. The main drivers of institutional changes are the adoption of a democratic political system and the implementation of decentralized governance policies across the continent. These two dynamics are giving birth to new institutional arrangements, with the differentiation of public authority into national government and local governments, and the emergence of new stakeholders in the institutional arena, including the private sector, civil society organizations and community groups. Local governments play a particular role as the authority closest to the people.

There is enormous variability across Africa in the capacity of urban local governments to execute decentralized functions and deliver basic services. Unfortunately, the commitment by most national governments to decentralization is still partial, a fact that has impeded the improvement

of service delivery. A study conducted by UCLG-A and Cities Alliance shows that very few countries in Africa have so far put in place an environment that enables local governments to contribute significantly to the effective management of urbanization in Africa (Table 2.1).

The functioning of basic service network includes three main segments: the produc-

tion or generation of the service (upstream); the intermediary segment linking production plants to consumption areas (transit or bulk segment); and the delivery to the end user or consumer (downstream). Most of the time, national governments take charge of the upstream and transit segments in basic service provision, plus the definition of national policy, the setting of standards

**Table 2.1 Environment for action of cities and local authorities by country**

|   | Southern  | Northern                         | Central  | Western   | Eastern   |
|---|---|----------------------------------|--|---|---|
| Most favourable environment for action of cities and local authorities in accordance with the standards adopted | South Africa  | Morocco                          |  |   | Uganda  |
| Quite favourable to the action of cities and local authorities, but some elements need to be improved           |   |                                  |  | Ghana   | Rwanda<br>Kenya   |
| Progress toward an enabling environment for cities and local authorities require major reform efforts           | Botswana<br>Namibia<br>Zimbabwe<br>Lesotho<br>Swaziland<br>Zambia<br>Angola | Tunisia<br>Mauritania<br>Algeria | Cameroon<br>Gabon<br>Chad  | Senegal<br>Nigeria<br>Niger<br>Sierra Leone<br>Benin<br>Burkina Faso<br>Ivory Coast<br>Gambia<br>Mali | Eritrea<br>Burundi                                      |
| The environment is so far unfavourable to the action of cities and local authorities                            | Malawi<br>Mozambique  | Egypt                            | Sao Tomé and Príncipe<br>Equatorial Guinea<br>Rep. Congo<br>Dem. Rep. of Congo<br>Central African Rep. | Guinea<br>Togo<br>Guinea Bissau<br>Liberia  | Madagascar<br>Seychelles<br>Comoros<br>Somalia<br>Sudan |



**There is enormous variability across Africa in the capacity of urban local governments to execute decentralized functions and deliver basic services.**

Source: *Assessing Cities Enabling Environments Report, Rabat, October 2013 (unpublished)*.

and goals for service delivery and the overall regulatory role. In many countries, the downstream segment is the responsibility of local governments. However, many national governments have set up utilities to run services like electricity, water, or transport. In such cases, local governments are barely

part of the governance of the services, even though decentralization laws give them the authority over service delivery.

Annex Chapter II. Africa of Gold III summarises the powers and functions for the basic services under consideration. The table indicates that, except for electricity, local



**Many national governments have set up utilities to run services like electricity, water, or transport.**

**Table 2.2 Allocation of powers in basic service provision**

|                            | Water  | Sanitation   | Solid Waste   | Transport and Local Roads  | Electricity  |
|----------------------------|--|--|---|--|--|
| <b>National</b>            | <p>Establish national water utilities and agencies.</p> <p>Build dams and bulk infrastructure</p> <p>Develop national policy and legislation including riparian rights. Departments include Dept of Water, Agriculture, Housing, Local Government, Rural Development, and Environment.</p> <p>Set standards for water supply. In some instances, set rates.</p> <p>Cross border water partnerships</p> | <p>Set sanitation policy, monitor performance of local level players. Set national strategies, standards, policies and legislation.</p>  | <p>Develop policy and standards. Responsibility for landfills in some areas and some countries.</p> | <p>Develop policy and legislation. In some instances police traffic offences, license vehicles.</p> <p>Subsidy for public transport providers.</p> <p>National roads and motorways and large scale infrastructure – such as bridges and tunnels.</p> | <p>Establish a national utility to generate and supply. Develop regulation and pricing.</p>  |
| <b>Regional/provincial</b> | <p>Regional utilities, where they exist, often supply both bulk water to big users and, in some instances, provide individual water piping connections. This is especially common in rural areas.</p>  | <p>Manage sewerage works outside of large metropolitan areas.</p>  | <p>Manage landfill sites.</p>   | <p>Construct and manage provincial or regional roads. In some instances management and subsidy of public transport.</p>  | <p>Some countries have regional power utilities which generate and supply direct to businesses and households</p>  |
| <b>Local</b>               | <p>In some instances, local piping and supply is organized by local government in urban areas.</p>   | <p>Local infrastructure piping and household connections where they have capacity. (common in large urban areas)</p> <p>Construct and manage public toilets, where they exist.</p> | <p>Collection from households or common points to landfill sites.</p>                               | <p>Construct and manage urban or local level roads. Local level traffic planning, supply of public transport facilities. In large urban areas, provision of traffic policing and licenses.</p>   | <p>In many instances local government has no role, except for lighting to roads and public areas. Only in Morocco, Egypt, to a limited extent Kenya, and South Africa does local government provide local level piping and supply.</p> |

Source: Extracted from Annex Chapter II. Africa of Gold III

governments do play a role in the delivery of local basic services, but the definition of this role is complex. It ranges from acting as an agent of other levels of government in providing a regulatory and monitoring role to playing an active role in service delivery. In some cases, local governments may have a role defined by legislation but lack the resources or capacity to deliver services. Table 2.2 presents the allocation of powers in service provision between levels of government.

### ***Role of national government***

In all countries, the national government develops the legislation and policy that governs the delivery of basic services. It is often influenced in setting standards by international donor organizations, sometimes with no reference to the local context. In most countries, the national government has set up institutional structures to oversee or manage the development process, but this often leads to increased fragmentation the duplication of roles and responsibilities.

The legislation and policy introduced by the national government can have a critical impact on the access of the poor to basic services. In a few instances, access is a constitutionally-entrenched right (as in South Africa), subject to the availability of resources to deliver that basic service. National policy, in some countries, controls the prices that can be charged by government or the private sector for basic services. The unintended consequence may be to decrease access to services when norms and standards are set at a level and cost that many city dwellers cannot afford. This can also increase the debt burden of local government if the local policy is to provide the service, including to the poor, irrespective of its cost for the municipality.

In some cases, the national government has intervened where local governments have not had the capacity to deliver. For example, the South Sudan national government

has taken on a range of local government tasks until local governments are able to do so. In some cases, the process of decentralization has been implemented without ensuring that local governments have the skills or expertise to undertake the functions assigned to them. In most cases, national government takes advantage of decentralization policies to push unfunded mandates to local governments. This often occurs when decentralization is hastily implemented as a condition of international aid or financing.

Most of the time, in response to the highly capital intensive nature of basic service infrastructure, national governments establish public sector bodies, or utilities, to benefit from economies of scale in the production and delivery of the services. In many cases, these utilities take charge of the three segments of service, except in countries where there is a deliberate policy of involving local governments in provision, as in South Africa or Namibia. In these countries, bulk water and bulk electricity are normally delivered to municipalities or regional entities which, in turn, are responsible for distribution to end users. There are many cases where the pricing of bulk water and bulk electricity results in increased water tariffs that are unaffordable for many city-dwellers. This situation calls for a more collaborative approach in the pricing of bulk services between national governments, utilities and local governments.

### ***Role of subnational or provincial government***

In many countries, subnational governments have been empowered by national government to ensure that resources are distributed rationally among local governments within the region. Across the continent, however, there are many tiers of government involved in the delivery of basic services and this creates challenges



**In most cases, national government takes advantage of decentralization policies to push unfunded mandates to local governments.**





**In North Africa, cities are increasingly delegating the service delivery to private companies that operate under their control in terms of the definition of delivery performance and of water tariffs.**

of coordination and duplication. In East Africa, for example, Burundi and Comoros have three tiers of government, Eritrea and Rwanda have four tiers, Kenya has two tiers and Ethiopia is a federal state. National governments tend to rely on sub-national governments for integrated water resources management, in particular the protection of water catchments and the management of aquifers, as well as river basins. Subnational governments are also empowered to plan and manage land-fill sites for solid waste. Evidence shows, however, that most subnational governments are ill-equipped to fulfil these missions efficiently. A multi-level governance approach could help to interface and co-ordinate the work of different tiers of government, improving efficacy and avoiding duplication and fragmentation.

#### ***Role of local government***

While national governments tend to retain policy-making and oversight functions, the continent-wide trend towards decentralization has meant that local governments are taking on greater roles in the delivery of basic services, often ‘de facto’ rather than ‘de jure.’ This is particularly the case for water, sanitation, provision of local roads, and solid waste collection.

With regard to water distribution, the tendency in East and Southern Africa is for cities to buy bulk water from official public or private utilities and to charge city-dwellers water tariffs for delivery. In North Africa, cities are increasingly delegating the service delivery to private companies that operate under their control in terms of the definition of delivery performance and of water tariffs. In the case of Central and West Africa (with the exception of Nigeria), the public or private utilities chosen by the national government also deliver water to city-dwellers, usually by-passing local governments in the process, resulting in a

loss of local control over the way the water is delivered and tariffs established – this despite the fact that water service delivery is legally the responsibility of local governments. Whenever a utility operates under the sole authority of the national government the coverage of the city is only partial, meaning that many residents turn to small private service providers from the informal sector that provide water of lower quality and at a higher cost. The resulting social tensions around water provision fuel a growing misunderstanding between national and local authorities over which holds responsibility. Where, through constitutional, legislative or policy measures, local government’s role in the provision of services has been clearly spelt out and enforced, service delivery has been greatly enhanced, and on-going operation and maintenance has been more sustainable. The clear definition of local government responsibilities in countries in North Africa, South Africa and Kenya has had a clear impact in ensuring that the MDGs are met in these countries.

The access to and management of sanitation lags far behind that of potable water. For solid waste, local governments tend to manage collection and disposal, but many municipalities have limited funding and weak management capacity. For example, in Sao Tome, financial and technical capacity for waste collection and discharge is very low, and local taxes are insufficient to cover the costs, necessitating national government support. However, even at the national government level, there are often too many actors involved in the process. In Gabon, for example, the national government actors involved in solid waste management include Ministries of the Interior; Public Works, Infrastructure and Construction; Public Health; Forest Economy; City Commissioner General; Mines and Energy; and the National Co-ordination Unit of the Regional Programme Management of Environmental Information.



Throughout the continent, the provision and transmission of electricity is a national responsibility and many national governments have set up public utilities to run this service from production to distribution. However, municipalities do deal with the distribution of electricity and use it as a source of revenue to cross-subsidize other local government services. Many municipalities also consolidate their municipal service accounts and disconnect the electricity supply if all service fees are not paid.

With regard to public transportation, many local governments have formally been delegated the authority to manage transport, and to build and maintain roads within their area of jurisdiction. However, most of the time local governments simply define local regulations and control how and where private transport providers will operate within the city. Kinshasa, in the Democratic Republic of the Congo, where the local government manages public transport, is an exception. Even though local regulations are important to the functioning of a city, since they affect traffic congestion, safety, speed control and parking, many national governments play a role in this field, as is the case in Ouagadougou, Burkina Faso.

In fact, public transportation is too demanding a system to be mastered by local governments alone. More common and effective is a collaborative approach to service delivery between the national governments, local governments and, increasingly, the private sector. Responsibility for inspections and the enforcement of traffic regulations tends to be a national responsibility, although there are also countries that manage it on a regional or local basis. Government is directly involved in the provision of bus services, which are generally organized and sponsored by a national level department or public transport company (e.g. SOGATRA in Gabon). There are also examples of collaboration between national and local government in bus service provision

(e.g. in Cameroon – though the SOTUC is now defunct). Local government-organized bus transport exists in many South African cities, with funding from the national budget via provincial governments. In Liberia, the Monrovia Transit Authority receives capital subsidies from the central government, but is required to cover its own running costs. Recognising the benefits of public transport, but unable to fully subsidise a transport operator, some cities opt to provide infrastructure, such as dedicated lanes, ranks or holding areas, to aid private sector transport operators. Parking is often seen as a revenue generator for city governments and, as a result, it is given disproportionate priority over other, more important transport areas, such planning, regulation, and quality control. The more common scenario is for the larger municipalities, at least, to be involved in the organization and delivery of local infrastructure (e.g. in Angola and Guinea).

The ambiguity and disjointedness in roles and responsibilities for the governance of basic services in the continent point to the need for an unambiguous, coherent and well-coordinated policy and institutional framework to ensure a more efficient delivery of basic services.

In Uganda, for example, the formal division of responsibilities is clear and well defined. The central government is responsible for formulating policy, setting standards and regulations and providing technical support to local government, and virtually all service delivery is in the hands of local governments. However, in practice there is some duplication of the work of central and local governments. In many cases, ministries hold operators accountable for the delivery of basic service programmes, rather than using the specifically-developed Local Government Financial Information and Accountability System (LoGFIAS). The result is that local governments spend excessive amounts of time on ‘upward accountability,’



**Most of the time local governments simply define local regulations and control how and where private transport providers will operate within the city.**

undermining their discretionary powers. What is clear is that, when responsibilities are transferred to local governments, the necessary financial capacity to meet these responsibilities must also be guaranteed.

The action of international institutions and partners often contributes to the general confusion. The promotion of Sector-Wide Approaches (particularly in water, but also in some transport projects, e.g.: Bus Rapid Transit) are often not part of an integrated development plan at local levels. Too many

cities have experienced the effects of a narrow focus on particular sectors, with no appreciation of how the cities develop as a whole. In most instances, delivery agencies operate in silos, with no consultation or communication with other key stakeholders. At times, municipalities develop action plans together with international contractors that are simply unrealistic. Some examples of integration are emerging across Africa and increasingly national laws require municipalities to have integrated development plans.



Photo: Sustainable Sanitation

## 2.3 Access to basic local services in African cities

### The Millennium Development Goals benchmark

It is now acknowledged that Africa will not meet the Millennium Development Goals.<sup>1</sup> Many experts argue that a major reason for this failure is the lack of empowerment of local governments to deliver basic services (particularly water, sanitation, electricity and solid waste). Indeed, the countries in Africa that are meeting the MDGs generally have well established local governments that have been empowered to provide basic services. Estimates suggest that, currently, over 780 million people in the world, half of whom live in Africa, lack access to safe drinking water.<sup>2</sup> With many major cities still lacking sewage systems, it will take many years to properly deal with sanitation.<sup>3</sup> Improving health, welfare, education and the environment are all dependent on improving basic services. Given the poor state of delivery in Africa, and the backlog of the underprovision of basic services (e.g. accumulated waste and a lack of road reserves), it is clear that much needs to be done in this regard to achieve the MDGs, a fact recognised by the African Union itself.<sup>4</sup>

<sup>1</sup> The MDGs were developed out of the eight chapters of the Millennium Declaration, signed in September 2000. There are eight “United Nations Millennium Development Goals” consisting of 21 targets, and a series of measurable indicators for each.

<sup>2</sup> Black (2013).

<sup>3</sup> Cities without sewers or which reach only a small proportion of the population include: Addis Ababa, Bamako, Brazzaville, Dar es Salaam, Douala, Ibadan, Kaduna, Kinshasa, Kumasi, Lagos, Lubumbashi, Mbuji-Mayi, Port Harcourt, Yaounde (African cities sanitation status).

<sup>4</sup> Armah et al. (2012).



**In the case of sanitation, Africa would have to triple its coverage in order to meet the MDGs.**

In order to meet the water MDG goals by 2015 in Africa, the continent was expected to deliver over 2.5 million water connections per annum, but has only been able to achieve two-thirds of that number.<sup>5</sup> Access to water has consequences for poverty, food scarcity, educational attainment, the social and economic capital of women, livelihood security, disease, and human and environmental health. Researchers such as Don Brown, who has examined the Congo, Mali, Malawi, Nigeria and Tanzania, have shown how low-income countries, particularly in sub-Saharan Africa, are lagging behind on achieving all of the MDGs.<sup>6</sup>

There are, however, some cases where nationally-driven programmes are succeeding. Algeria will conclude its dam/desalination plant construction and water delivery programme in 2015. This will mean that all citizens will have access to water 24 hours a day (as compared to the previous situation when, on average, they had access to water every 20-23 days). The challenge will be for Algeria to maintain this significant accomplishment.

In the case of sanitation, Africa would have to triple its coverage in order to meet the MDGs. The non-collection of solid waste also creates potentially large challenges from a health point of view, and decent public transport and roads will be essential to tackling the continent's social, environmental and economic problems. Few Africans have access to safe, secure and affordable electricity. While this is still not regarded as a human right, it is today a human necessity. With so many people dependent on solid fuels, environmental degradation in Africa continues and health problems continue to beset the poor and vulnerable. The health consequences of not delivering basic services are huge. Mitlin and Satterthwaite (2013) provide an analysis of the health of populations and access to basic services.<sup>7</sup> Considering what might be regarded as

extreme indicators (child mortality, stunting in children, lack of access to water and lack of access to electricity) the following African countries all score very poorly: Mali, Niger, Zambia, Liberia, Congo DR, Benin, Uganda, Sierra Leone and Malawi, as well as Chad, Burkina Faso, Mozambique, Nigeria, and Tanzania.

In all of this, women continue to be triply oppressed. The empowerment of women can only come about if they are freed from the daily chores of finding wood for fuel, fetching drinking water and caring for the household, the sick and animals. The delivery of basic services will free up some of women's time to allow them to advance in economic, social and political spheres.

Certainly, therefore, the achievement of the MDGs is directly related to the delivery of basic services. World Bank findings suggest that where a person is born is the single largest factor in determining their access, or otherwise, to basic opportunities such as education, healthcare, water, sanitation, electricity, and early childhood development programmes.<sup>8</sup> Given the reality that, in most African countries, these basic services are not being delivered to a majority of citizens, it is clear that achieving even the limited set of MDGs will be difficult here.

In spite of local governments raising their concerns during the MDG negotiation process, their vital role was not clearly recognized. The recurrent call for localizing the MDGs has not echoed much in the national and international arenas. Decentralization and the involvement of local governments in the delivery of basic services could arguably play a major part in speeding up delivery. In South Africa, for example, the Free Basic Services strategy, implemented by local governments, has meant that access to basic services has dramatically increased over the past 15 years.

The World Bank's recently produced Concept Note on the Global Monitoring Report

<sup>5</sup> Mugabi and Castro (2009).

<sup>6</sup> Satterthwaite et al. (2012).

<sup>7</sup> Mitlin and Satterthwaite (2013).

<sup>8</sup> The study applied the Human Opportunity Index (HOI) methodology, using public domain statistics to measure inequality of opportunity in society, see Africa Region Poverty Reduction and Economic Management. *South Africa - Economic Update: Focus on Inequality of Opportunity*. Washington: The World Bank, 2012.



2013 reinforces the link between decentralization in the provision of basic services infrastructure and the achievement of the MDGs.<sup>9</sup> It argues that urbanization plays a key role in the success or failure to deliver on the MDGs, and points out that rural-urban migration and the transformation of rural settlements into towns and cities affect the ability of developing countries to make progress towards various MDGs. We would go further and argue that addressing Africa's lack of MDG progress relies on the capacity of local governments to take over the delivery of basic services.

### Access to water and sanitation

Across the continent, almost two-thirds of the population is considered to have access to “improved water,” and just over 40% to “improved sanitation” as defined by the WHO/UNICEF Joint Monitoring Programme.<sup>10</sup> These figures, low as they are, still fail to provide a true sense of the situation in Africa, since standards for “improved” provision do not necessarily imply access at a level that ensures health and convenience. Pit latrines, even if they are well maintained, are not the same thing as flush toilets within a residence. Having access to water 200 metres away from home is not the same as having water piped into one's home; nor is waiting in line the same as turning on a faucet. Data on “improved” sources also fail to provide information on how safe or regular water supplies are. Nonetheless, these figures are primarily how we determine access to water and sanitation.

These figures for improved provision in Africa vary considerably between urban and rural areas, especially in sub-Saharan Africa. Here, while 83% of urban-dwellers, on average, are considered to have improved provision for water, this is the case for only 49% of rural dwellers. The gap is equally

large for improved sanitation, with 43% on average for urban areas and only 23% for rural areas. (In the countries of Northern Africa, figures for improved provision in both rural and urban areas are around 90%.)

These apparently strong urban figures can be misleading, however, for a few reasons. For one thing, they provide only a partial count. It is highly unlikely that informal settlements are all included, and these can make up half or more of the urban population, much of which typically remains unserved.

Even where all communities are counted, the figures are generally not indicative of the real situation. The standards that are used to define “improved” provision are seriously inadequate for dense urban conditions and fall far short of the standards required for adequacy. Less than half of those with improved water provision actually have water piped to their premises. Water supplies are often irregular and waiting times at water points can be very long. Even improved water provision may mean hours a day spent waiting and carrying, resulting in relatively low levels of use. In Kigali, where counts in all communities were done, 92% of the population is considered to have access to safe drinking water; yet consumption in informal settlements is one third that of other areas of the city.<sup>11</sup> While some cities have clear strategies to ensure that people living in informal settlements have access at least to standpipes, this is not the norm.

Difficult as the situation may be with water, urban sanitation provision is even worse. In Figure 2.3, each bar represents the level of improved urban water access; the dark section of each bar represents access to sanitation. In North African countries, the island states and South Africa, the gap between access to improved water and sanitation is small. For most other countries, the gap is quite large. This gap is critical and must be bridged, both because of the impact that



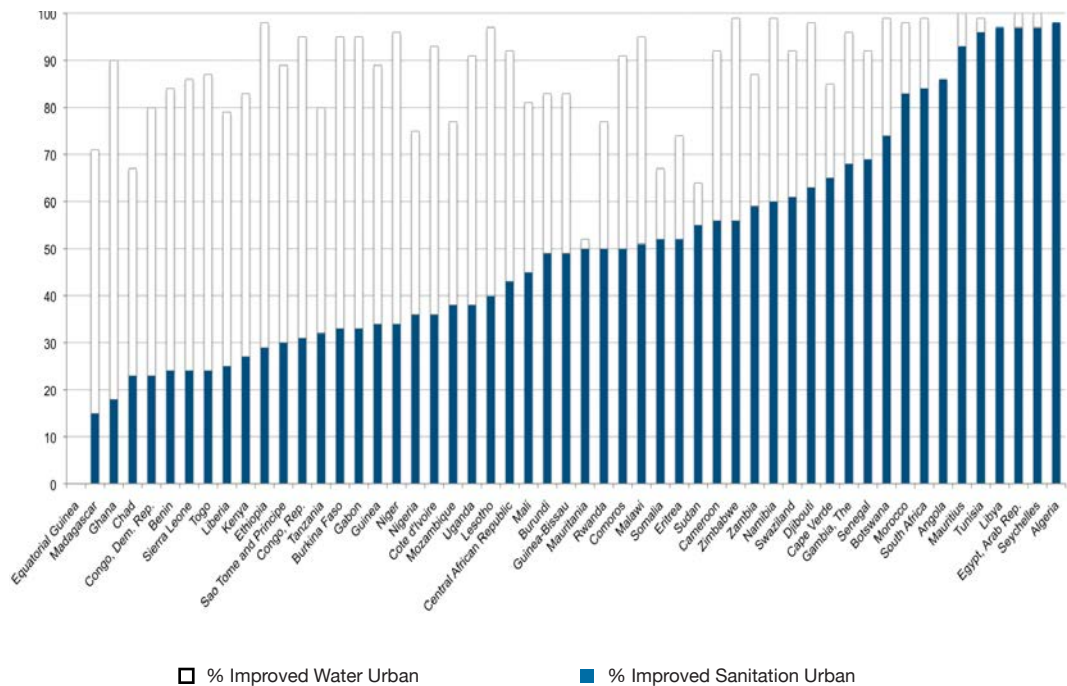
**In spite of local governments raising their concerns during the MDG negotiation process, their vital role was not clearly recognized.**

<sup>9</sup> World Bank (2012).

<sup>10</sup> WHO and UNICEF (2012). [http://www.wssinfo.org/fileadmin/user\\_upload/resources/Africa-AMCOW-Snapshot-2012-English-Final.pdf](http://www.wssinfo.org/fileadmin/user_upload/resources/Africa-AMCOW-Snapshot-2012-English-Final.pdf)

<sup>11</sup> [http://waterwiki.net/index.php/Rwanda#Country\\_Profile:\\_Trends\\_in\\_Water\\_Use.2C\\_Management\\_and\\_Sanitation](http://waterwiki.net/index.php/Rwanda#Country_Profile:_Trends_in_Water_Use.2C_Management_and_Sanitation)



**Figure 2.3 Improved provision for water and sanitation in urban areas in Africa**

The majority of people in Africa still relieve themselves in open areas; water courses, city streets and open sewers.

Source: WHO / UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation [www.wssinfo.org](http://www.wssinfo.org)

poor sanitation has on water sources, and because of the broader health and safety implications of inadequate sanitation.

Of the 43% of urban residents that are considered to have improved provision for sanitation, almost a third use shared facilities, the majority of which are pit latrines, a very poor solution in densely settled areas, where latrines fill quickly and where maintenance can be extremely difficult. In Accra, Ghana, only 1 in every 5 houses has functioning indoor plumbing.<sup>12</sup> In Kigali, in 2006, only 6% of sanitation facilities were flush toilets.<sup>13</sup> The majority of people in Africa still relieve themselves in open areas; water courses, city streets and open sewers. In many cities, barely a quarter of city-dwellers have adequate sanitation. The fact that many pit latrines are dysfunctional and are not regularly desludged creates further challenges for urban-dwellers. The situation is especially difficult for women, for whom

the absence of adequate provision contributes to heightened fear about violence and abuse. In Nairobi's informal settlements, where only 24% of households have private latrines or toilets, most people have to walk for several minutes to reach a public latrine. Most of the girls and women interviewed by Amnesty International said that using latrines at night was out of the question because of the ever-present danger of rape.<sup>14</sup> The reality is that sanitation remains one of the biggest challenges to health and safety in both rural and urban areas.

Another discouraging reality in urban areas is the lack of progress in provision. In rural areas, although the situation is dire, there have been significant improvements in recent decades. In urban areas, rates of provision have been stagnant for the last two decades, and in some areas have declined. There is a growing backlog, for instance, in the provision of piped water,

<sup>12</sup> Thompson (2008).

<sup>13</sup> <http://waterwiki.net/index.php/Rwanda>

<sup>14</sup> Amnesty International (2010).

providing further evidence of the growing gap between supply and demand created through rapid urbanization. The 2012 Joint Monitoring Programme report indicates that, while 43% of urban areas were connected in 1990, that figure had dropped to 34% in 2010.<sup>15</sup> Poor access to piped water in homes results, in turn, in lower levels of sanitation, with cities recording access to improved sanitation at one-third to one-half of levels of access to improved water.<sup>16</sup>

Many cities face massive problems in the natural supply of water. It is not exceptional for water to have to be found at a distance from the city. In Dakar, Senegal, for example, drinking water is brought in from almost 70 km away, which results in huge transmission and storage investments. Mombasa is supplied from a source located 220 km from the city. There are a number of challenges in the process from the collection of water by providers to the final delivery, including leakages, theft, vandalism, mismanagement and ageing infrastructure (for example, in Harare no maintenance has been undertaken for the past 20 years.)

In most cities, demand for water outstrips supply and, as more and more households are connected to the water lines, the situation is becoming critical. In Abuja, Nigeria, for example, many houses are not connected to the city water supply, mostly due to low water pressure. In these cases, tenants drill boreholes, or purchase water from independent suppliers or the Water Board. The situation is compounded by rapid urbanization, creating serious problems for the municipal administration of the federal territory.<sup>17</sup> Many major cities also lack sewer systems, and often have undeveloped storm water drainage systems. Without this infrastructure, the access to, and the management of, sanitation becomes more difficult.

The demand/supply equation makes for very difficult planning in most cities, well-illustrated by three East African cities. In

Kigali, Rwanda, the existing water supply covers 69% of needs, if households are rationed to 22 litres per capita per day. If per capita requirements are increased to a more reasonable 90 litres per capita per day, it only covers 29% of needs.<sup>18</sup> In Mombasa, Kenya, less than 33% of daily demand for water is met (although it is unclear in this case what per capita requirement is implied). Supply costs of water are high due to the need to tap distant water sources and this means high levels of staffing (in Mombasa, for instance, there are 11 workers per 1000 connections, more than twice the sector benchmark). In Dar es Salaam, while the production capacity of the water supply was judged to be sufficient to supply a population of 3 million as of 2003, there are problems with transmission, storage capacity and treatment quality, and current UN projections predict water stress for Tanzania by 2025.<sup>19</sup> A 2001 household survey estimated that about 85% of the city's population has some sort of piped water supply, however, the service is erratic, and most households buy water from neighbours, truck vendors or small vendors.<sup>20</sup>

Unfortunately, the link between poverty and access to water is all too clear. The poor simply cannot afford to pay the high upfront capital to access piped water. Yet, they often pay a higher rate per unit for buying water from other providers. Both political and ethnic conflict has contributed to this unequal distribution of resources. While water will remain scarce, the lack of economic resources makes the service delivery challenge even more difficult.

Improving access to potable water and sanitation for the poor has become a major focus of developmental initiatives in recent years. Providing connections to the households of the poor certainly makes the most sense. There are precedents. In Kigali, Rwanda, for example, the government partnered with UN-Habitat on a project to develop connections for poor households,



**The poor simply cannot afford to pay the high upfront capital to access piped water. Yet, they often pay a higher rate per unit for buying water from other providers.**

<sup>15</sup> WHO and UNICEF (2012).

<sup>16</sup> WHO and UNICEF (2012). Banerjee et al. (2008).

<sup>17</sup> [http://www.daily-trust.com.ng/index.php?option=com\\_content&view=article&id=155775:abujas-water-infrastructure-imperatives&catid=9:property&Itemid=10](http://www.daily-trust.com.ng/index.php?option=com_content&view=article&id=155775:abujas-water-infrastructure-imperatives&catid=9:property&Itemid=10)

<sup>18</sup> <http://www.ceser.in/ceserp/index.php/ijed/article/view/906>; <http://www.udsm.ac.tz/postgraduate/coet2.pdf>

<sup>19</sup> 2025 UNEP/GRID-Arendal 2002

<sup>20</sup> <http://www.iwawaterwiki.org/xwiki/bin/view/Articles/12%29+DAR+ES+SALAA+M+%28Tanzania%29+3#HDARESSALAAAM%3ASanitationStatus>



**It has been estimated that ensuring access to clean, potable water and sanitation for all Africans would cost USD 21.9 billion annually.**

<sup>21</sup> [http://waterwiki.net/index.php/Rwanda#Country\\_Profile:\\_Trends\\_in\\_Water\\_Use.2C\\_Management\\_and\\_Sanitation](http://waterwiki.net/index.php/Rwanda#Country_Profile:_Trends_in_Water_Use.2C_Management_and_Sanitation)

<sup>22</sup> See the Annual reports of all the major municipalities in South Africa for such examples. A summary is provided in Delivery, 1 September 2012, 22-24.

<sup>23</sup> Foster and Briceño-Garmendia (2010).

<sup>24</sup> Hoornweg and Bhada-Tata (2012).

<sup>25</sup> Sources for Figure 2.4. Complete references available at <http://www.uclggold.org>. National Institute of Statistics, Mali. *District de Bamako* (2013); ETHEkwini Municipality. *Annual Report (2011)*; City of Johannesburg. *2012-16 Integrated Development Plan*; UN-Habitat. *Cities and Citizens Series 1* (2008); UN-Habitat. *Solid Waste Management in the World's Cities* (2010); *Solid Waste Management in Dar es Salaam* (2009); Lilongwe City. *Lilongwe City Development Strategy 2010-2015* (2009); CHF and USAID. *Sekondi-Takoradi Poverty Map* (2010); Kigali City Website. *Infrastructure and Development Unit*.

and is rolling out the project in Kigali, Kisororo and Jabana.<sup>21</sup> In Nioro du Rip, Senegal, the SDE distributes water to the poor as a result of a contractual arrangement between the municipality and the SDE. In South Africa, in addition to the improvements in access resulting from the Free Basic Service policy, many municipalities are striving to provide household piping and communal toilets in informal settlements.<sup>22</sup> It has been estimated that ensuring access to clean, potable water and sanitation for all Africans would cost USD 21.9 billion annually (USD 14.9 billion in capital and USD 7 billion in operation and maintenance).<sup>23</sup> If this were to be achieved, health and economic outcomes would improve considerably, particularly for women.

## Access to solid waste management services

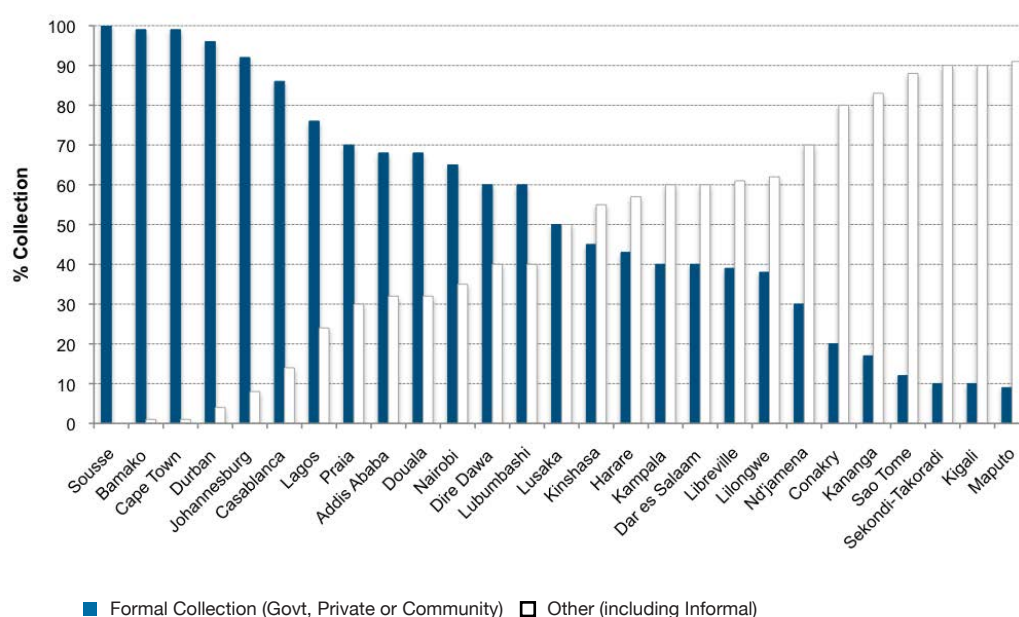
The scale of waste across the world is increasing sharply from the current 1.3 billion

tonnes per year to a projected 2.2 billion tonnes per year by 2025. Africa's share of this waste is very low, presently only around 5-8% of this total,<sup>24</sup> but it is likely to grow significantly.

There are enormous variations in cities across the continent in waste collection rates, whether the service is provided by government, the private sector or community-based organizations, as seen in Figure 2.4.<sup>25</sup> 'Other', in this figure, mainly refers to the disposal of waste by individual households, whether by burying, burning or dumping.

Within cities, too, there are significant differences between collection rates in slum and non-slum areas. For example, even though Egypt collects almost 90% of the waste in non-slum areas, this represents less than 70% of the population. Approximately one third of solid waste is not collected. This difference in rates of collection between slum and non-slum areas of

**Figure 2.4 Solid waste collection in selected African cities**



Source: See footnote 25.

about 30% holds true for Benin, Senegal and Kenya.

The collection systems in cities also vary. Most are quite outdated and inefficient, unable to cope with the increasing quantity of waste. In Sao Tome, for example, waste is piled up and then manually loaded onto trucks, using forks, shovels and baskets. Collection is very slow and the performance of vehicles and collection teams is very low. The lack of space in the dump results in the burning of waste, which causes significant pollution and conflicts with neighbouring settlements. Leachate from the discharge area flows through a city stream, down to the main city beach.

Most cities also lack proper transfer systems from collection points to transfer stations and landfill sites. Landfill sites, where available, are often not well-engineered and, except for Northern Africa, most engineered landfills in sub-Saharan Africa are found in South Africa, Botswana and Zimbabwe, while across the rest of sub-Saharan Africa open dumping is used.<sup>26</sup> Importantly, many landfills now function as open dumps because municipalities do not have the financial capacity to maintain them. The need to comply with environmental regulations is now pushing many central governments to invest in landfill sites, using, in a very few cases, the Clean Development Mechanism under the Kyoto Protocol for their financing.

The solid waste management situation is worsened in cases of sustained social crisis or war. In the cities of Mogadishu and Kinshasa, for example, there are still huge waste piles that accumulated during the countries' civil wars.<sup>27</sup>

The quality of waste collection is one of the key criteria used by citizens to rate the management performance of their local governments. It is also very important for the image of a city, as well as the health of city-dwellers. There is a strong case for

the establishment of a rating system on clean cities across Africa, so that the competition pushes the performances up.

## Access to public transport and roads

In almost all African cities, public transport is an unpleasant, unsafe and costly experience for commuters, who spend inordinate amounts of time and expense getting around their cities. All are affected, rich and poor, men and women, the employed and unemployed.

The uncontrolled sprawl of most African cities has created a very fragmented public transport system. Most commuters walk long distances to reach the nearest transport service, often on unsafe roads that usually lack pavements. If they are able to pay for public transport, commuters then usually rely on buses, midi/minibus taxis, and motorcycles. Commuter train services are only available in a few cities.

The variations in the primary forms of transport in different cities and countries are significant and there are no clear trends. In all cities, the private sector is dominant in providing transport.

The sheer scale of public transport provision (including that provided by the private sector) in African cities is huge, as these examples from UITP/UATP show:<sup>28</sup>

- In the case of buses, one finds such examples as Abidjan, Cote d'Ivoire, with over 470,000 passengers per day (ppd), Addis Ababa with over 300,000 ppd, Lagos with over 200,000 ppd on Rapid Bus Transport, and Nairobi with over 700,000 ppd.
- In the case of taxis (including minibuses), Abidjan, Cote d'Ivoire has over 1,450,342 ppd, Accra over 4 million ppd, Addis Ababa over 1.4 million ppd, Lagos over 5.8 million ppd.



**Many landfills now function as open dumps because municipalities do not have the financial capacity to maintain them.**

<sup>26</sup> Remigios (2010).

<sup>27</sup> Achankeng (2003).

<sup>28</sup> Kouakou (2010).





**There is stiff competition between informal minibus operators and buses, often leading to conflict.**

#### Difficulty of the configuration of transport infrastructure

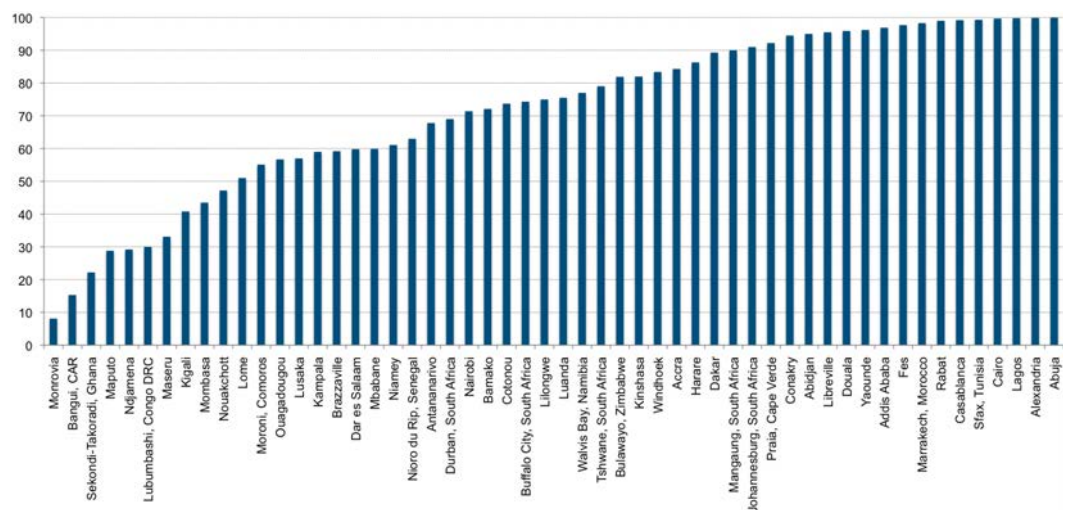


- In the case of motorcycles, Lome, Togo stands out with some 70,000 motorcycles carrying 420,000 pph.

Throughout Africa, there is stiff competition between informal minibus operators and buses, often leading to conflict. Bus and taxi strikes often occur, affecting both commuters and school children, who rely on having a consistent, affordable service to be able to move around the city.<sup>29</sup> Increased competition leads to worsening safety and complaints of police bribery and harassment. External factors, such as the increase in oil prices, have put further economic pressure on this sector.

Given the massive congestion levels in large cities and the necessity for affordable public transport, a number of integrated transport and rapid transport initiatives have recently been implemented. These include increasing the capacity of rail networks in cities that have them. In Nairobi, for example, the Nairobi Commuter Rail project has been undertaken to alleviate the massive congestion in the central city.<sup>30</sup> This 24-billion shilling (USD 283 million) commuter rail project includes the rehabilitation of the existing rail line, improvements to stations, signalling and other equipment, the procurement of new commuter rail cars, and the extension of rail service to the airport.

**Figure 2.5 Access to electricity in selected African cities**



<sup>29</sup> <http://www.iol.co.za/news/south-africa/gauteng/bus-strike-puts-children-in-danger-1.1239028#.T-3IOcXhdfs>, Bus strike puts children in danger, February 21 2012, Mogomotsi Magome.

<sup>30</sup> [http://sabahionline.com/en\\_GB/articles/hoa/articles/features/2012/06/18/feature-01](http://sabahionline.com/en_GB/articles/hoa/articles/features/2012/06/18/feature-01), New Nairobi commuter rail to open next month, Sargajan Bin Kadii, June 18, 2012.

Source: See footnote 32.



## Access to electricity

In many major cities, less than half the residents have access to electricity, and those that do have to contend with frequent outages. Around 600 million people in Africa lack access to electricity and around 700 million still use solid fuels as their primary source of energy for cooking and heating. This contributes to environmental problems, as well as high incidence of respiratory infections and other health problems. In South Africa, over one million die annually from illnesses directly linked to the use of these fuels.<sup>31</sup>

Figure 2.5 shows access to electricity for a number of African cities, with information from a number of sources.<sup>32</sup>

In almost all cities in Africa, energy security is threatened by population increase and inadequate infrastructure and supply. Regular blackouts have become the rule relatively than the exception, even in rather energy intensive economies like South Africa. This puts both the living conditions of residents and the productivity of local businesses at risk. Poor access to electricity undermines business confidence, and is

a major constraint on everyday operations, let alone business growth. From 2001 to 2005, GDP rose by over 4.5% per annum in over half the countries in sub-Saharan Africa, but generation capacity grew at a rate of just 1.2%.<sup>33</sup>

Both businesses and households rely heavily on generators. This is clearly economically, socially and environmentally unsustainable. It is estimated that backup generators supply an average of 17% of the electricity used in West Africa.<sup>34</sup>

Once again, except for Northern African countries and a few sub Saharan countries like South Africa, the role of local governments in providing access to electricity is quite limited. Yet, these governments have to deal with the environmental, economic and human consequences of poor access to electricity. Whilst local governments are unlikely to become major players in electricity generation and transmission, localised sustainable energy solutions (such as those through IPPs) provide new opportunities for local governments in Africa to have a greater role in energy provision.



**Around 600 million people in Africa lack access to electricity and around 700 million still use solid fuels as their primary source of energy.**

<sup>31</sup> UNDP and WHO (2009).

<sup>32</sup> Sources for Figure 2.5. Complete references available at <http://www.uctgold.org>. UN-Habitat. *Global Urban Indicators* (2009); UN-Habitat. *Cities and Citizens Series 1* (2008); INSTAT. *Les 22 Régions de Madagascar en Chiffres* (2004); Burkina Faso Institut National de la Statistique. *Annuaire Statistique* (2008); SON-ABEL. *Rapport d'Activité 2010* (2010); Davidson and Mwakasonda. *Electricity Access to the Poor* (undated); McDonald. *Electric Capitalism* (2008); City of Johannesburg 2012-16 *Integrated Development Plan*; Uganda Bureau of Statistics. *National Household Survey* (2010); Commission on Revenue Allocation. *Kenya County Fact Sheets* (2009); Masealand and Kayani. *The State of African Cities* (2010).

<sup>33</sup> Foster and Briceno-Garmendia (2010).

<sup>34</sup> Foster and Briceno-Garmendia (2010).



## 2.4 Management and financing models

Historically, the delivery and management of basic services in Africa has been the preserve of national governments. Except for some countries and specific cities, local governments have largely operated to only regulate, monitor and in some cases maintain these services.

However, in the 1980s, international donors pushed for the privatization of basic services. This was a period during which structural adjustment reduced state intervention in economic activities and conditionalities attached to official development aid (ODA) were meant to favour the privatization of services.<sup>35</sup> The initiatives ranged from full-scale attempts to privatize the delivery of basic services to ensuring an enhanced role for the private sector. Full-scale privatization has generally not become the norm; the major private sector organizations have focused more on management contracts to revamp and integrate existing services. In water and sanitation, some international companies developed a presence in different countries in Africa in the 1990s, but their involvement decreased in the 2000s. This trend is borne out in most reviews undertaken by the World Bank, as well as by private operators themselves.<sup>36</sup>

Overall, across the continent, the delivery of basic services is still primarily managed

through the public sector, although this varies. There are many instances in which different management models involving civil society and the private sector have been adopted.

In some cases, often due to the failure of a state organ or its inability to undertake responsibility for the construction or maintenance of infrastructure within a particular area, local communities have organized and taken on responsibility for service delivery or infrastructure. There are many examples of government encouraging and promoting this process in order to maintain roads, collect waste or maintain water infrastructure. In Zambia, for instance, the social recovery project encourages communities to organize in order to access road funds. Similarly, in Lesotho, village development committees take on these roles.

The Community Led Total Sanitation (CLTS) programme, a UNICEF-led initiative that has been introduced in a number of African countries, is an example of how sanitation projects can be developed at a community level, without the assistance of local government. In areas such as Bande, Niger, this project has resulted in the installation of hundreds of latrines.

Slum Dwellers International has also had significant success in both project delivery and influencing policy. These successes include new approaches to informal settlements,<sup>37</sup> the acceptance of new eco-friendly sanitation standards,<sup>38</sup> the reduction of plot sizes to increase efficiencies,<sup>39</sup> and approval for slum-upgrading programmes.<sup>40</sup>

There is also some involvement of the private sector in the provision of basic services across the continent, especially in Francophone countries. Small providers are playing an increasing role in covering areas that currently lack access to most basic services.

In considering management models for the delivery of basic services, it is important to

recognise the wide variety of functions required in the delivery process of basic services. The political (policy-making, legislation and review), administrative (regulation and compliance) and operational functions, are all areas in which combinations of public, private, and civil society management are found.<sup>41</sup> For this reason, it is difficult to generalize about management models.<sup>42</sup>

## Water and sanitation

As mentioned above, the responsibility for the collection and distribution of water is usually divided between national and sub-national governments. Delivery, though, is primarily through national (52% of the utilities in Sub-Saharan Africa) or regional utilities (28%), local governments (7%) and, in some cases, the private sector (2%) and community based organizations (11%).<sup>43</sup> In some instances it is possible that all four may be involved in a particular aspect of water delivery. As part of the reform of the sector, in the last two decades new corporatized utilities were created to supply urban areas.

**Local government** can be involved in just the delivery of water in one particular area within a city, or it may be responsible for piping water to an entire city. There is no single model for municipal delivery of water and sanitation. There is a major dichotomy with respect to decentralization; about one-third of African countries (primarily Francophone) retain a single national water utility, and the remaining two-thirds (primarily Anglophone) have undertaken some form of decentralization to local jurisdictions.<sup>44</sup> Many cities have also involved the private sector and local communities in water delivery processes, even going down to the most local level, as in the management reform project in Burkina Faso or the Catholic Diocese project in Kenya, where the municipality has hand pump contracts with local communities.



**In some cases, local communities have organized and taken on responsibility for service delivery or infrastructure.**

<sup>35</sup> Blanc and Botton (2012).

<sup>36</sup> AquaFed (2012).

<sup>37</sup> Windhoek, influenced by the Slum Dwellers Federation, cut land costs by allowing smaller minimum plot sizes and lower standards.

<sup>38</sup> Federation-style eco-sanitation is also being included within the National Sanitation Policy in Malawi.

<sup>39</sup> In Kenya, Malawi, Namibia, Tanzania and Zimbabwe, community organizations have been able to reduce plots sizes to below the present standard size.

<sup>40</sup> In Epworth, Zimbabwe where a large community-assisted 'slum upgrading' programme is now accepted.

<sup>41</sup> Moss (2008).

<sup>42</sup> Marin (2009).

<sup>43</sup> Banerjee and Morella (2011).

<sup>44</sup> Banerjee et al. (2008).



**Together, the top ten utilities in Africa serve approximately 60 million people.**

**National or regional utilities** are usually responsible for bulk water supply, although they also provide water directly to households, especially in small towns and areas that are too small for a local utility (e.g. SEEG in Gabon, SODECI in Cote d'Ivoire and SONES in Senegal). Hundreds of utilities have been established by governments to collect and distribute bulk water.<sup>45</sup> In addition to this main function, these water utilities often perform a number of other functions, including water piping, waste water supply, on-site sanitation, storm-water drainage, and solid waste collection. Most of these utilities serve jurisdictions across local authority boundaries. Rand Water in South Africa is the largest bulk water utility in Africa, serving over 11 million customers; Lagos Water Corporation serves over 15 million customers. Together, the top ten utilities in Africa serve approximately 60 million people, while the smallest utilities serve, on average, only 50,000 people. These utilities vary enormously in terms of capacity and infrastructure. While most utilities established by national governments take the form of public entities (with boards controlling the affairs and governments being the major or only shareholder), in some cases private sector interests have also been sought. Generally speaking, though, there are only a few cases in which complete privatization has occurred.<sup>46</sup>

There are many different models of **private sector participation** in operation, with numerous variations in the legal and regulatory frameworks, the nature of the companies and the types of contract. In some cases, the private sector is involved in the early stages of planning and construction, as is often the case with BOT contracts in South Africa. Post construction, the private sector can provide support and expertise to local government at the mandate of either central or local government. This includes technical advice, preventative

maintenance and repair services (e.g. STeFi in Mali). Quite often, management functions are delegated to a private company (as in Lydec, Casablanca). In all of these models, regardless of the level of private sector involvement, the public sector role and the regulatory environment are critical.<sup>47</sup> Variations in timing, phasing, contractual details and regulatory procedures across different local contexts make it almost impossible to create a simplified typology of contractual arrangements. Affermage (leasing) schemes – where the government owns the infrastructure but leases it out to a private operator who manages it – are common in Francophone Africa (e.g. Côte d'Ivoire, Guinea, Niger, and Senegal). In Cameroon, in 2008, a newly established local private company, Camerounaise des Eaux (CdE) installed connections to provide water to private customers, using the infrastructure of the state-owned utility, Camwater. CdE collects fees for water and pays a percentage to the government. Government provides CdE with a partial subsidy for 40,000 poor households in order to ensure they are able to access water.

Some international companies in the water sector are also present in Africa, for example, in cities as diverse as Algiers, Jeddah and Johannesburg. In Algiers, their management led to an increase in access to a 24-hour water service from some 8% of households to 100% over a five year period, and half of the population now has access to wastewater services as well, leading to an increase in their efficiency and productivity. However, there can be mixed responses to these arrangements; in the Moroccan democratic uprising, demands were made for the expulsion of international companies from the water sector. The initial enthusiasm for privatization in the 1990s led to a decade of disillusion, with companies not able to achieve acceptable returns on capital and communities rejecting price increases. The more recent shifts to management

<sup>45</sup> Mugabi and Castro (2009).

<sup>46</sup> Collignon and Vézina (2000).

<sup>47</sup> Budds and McGranahan (2003).



contracts has, to a certain extent, avoided some of these consequences.

Surveys of utilities show small private providers are playing an increasing role, with some delivering water or providing sanitation. They manage standpipes and use their own water trucks and tankers, boreholes, small pipes and handcarts. Contractors dealing with sanitation also operate cesspit-emptying trucks, sludge treatment works, and toilets and showers.<sup>48</sup> They are particularly active in many poorer countries, like Burkina Faso and Mozambique. Only some of these contractors have performance contracts with utilities or local governments.

**Community based organizations and NGOs:** Many innovative partnerships are found across Africa. In Malawi, for example, the Lilongwe Water Board, the local Centre for Community Organisation and Development and the international NGO WaterAid restored service to dysfunctional water kiosks serving low-income users in Lilongwe. Another example is the creation of communal water authorities in Burundi. In the Kibera public-private project in Kenya, the focus was on small operators who were involved in the distribution of water once it had left the main formal water network. However, external funding ceased and the project's effectiveness was limited because, instead of building on a democratically-driven concern for the poor, it was implemented with a market-driven concern for efficiency. In the end, neither efficiency nor the public interest was served.<sup>49</sup> Overall, most of these schemes run into problems of sustainability, particularly when it comes to maintenance, although some experiences have been positive.

Regardless of the management model, supply-side issues are handled in many different ways. Water can be provided direct to consumers (for example, in the cases of the water and electric authorities REGIDESO,

in Burundi, and JIRAMA, in Madagascar). Bulk water can also be sold to private vendors who then supply water to consumers (whether from a kiosk, mobile vendor or tanker) or to a water management committee (as in Zambia), or an NGO or CBO (as is the case in Kenya, where community water suppliers can register as water user associations). More commonly, however, bulk water is supplied to a city entity, which acts as the water service provider.

The biggest challenge is that, in the context of rapid urbanization in low-income countries, the water sector cannot, by itself, pay for the development and delivery of water. Infrastructure, including dams, bulk water piping, treatment systems, and piping to deliver water to consumers, is very costly to provide. In low-income countries it is simply not financially viable to establish systems capable of delivering to all without significant injections of financial resources.<sup>50</sup>

Inefficiencies in water management – losses of over 30%, undercollection of revenues, high levels of non payment, overstaffing, low asset maintenance –, all contribute to the difficulties of many services providers and weaken the sustainability of water distribution systems. According to household surveys, about 40% of those connected to utility services do not appear to be paying for them, a share that rises to 65% in a significant minority of countries.<sup>51</sup>

When sanitation is added to the equation, the institutional models become even more complex. The absence of sewer networks in many cities and the fact that many parts of the supply chain for sanitation (hygiene promotion, latrine construction, and latrine emptying, for example) are in the hands of different public and private players, prevents a single agency from managing the sector. This situation is compounded by difficulties in obtaining funding; very few places in Africa have policies that take into account cost recovery for sanitation.



**In the context of rapid urbanisation in low-income countries, the water sector cannot, by itself, pay for the development and delivery of water.**

<sup>48</sup> McGranahan et al. (2006).

<sup>49</sup> Katui-Katua and McGranahan (2002).

<sup>50</sup> Deloitte (2011).

<sup>51</sup> Foster and Briceno-Garmendia (2010).





**Experience indicates that with clear government direction, basic sanitation can be provided.**

However, experience indicates that, with clear government direction, basic sanitation can be provided. Even in the very poor country of Burkina Faso, government not only invested in the ONEA water project, but ensured that it adopted private sector management systems. It has been a remarkable success, although low collection (often from government) and connection rates continue to be major problems.<sup>52</sup>

Utilities are increasingly broadening their services from water provision to include sanitation. The AICD Water and Sanitation Services (WSS) Survey found that close to 60% of water utilities operated a sewer network, and a similar proportion had some responsibility for on-site sanitation.<sup>53</sup>

The reality, though, is that sanitation systems lag significantly behind the delivery of water and access remains poor, affecting health, human rights and general well being. In the end, successful strategies for the delivery of water and sanitation for all requires the ability to ensure quality delivery, management capacity, and a financing package that makes entities financially viable and sustainable in the medium- to long-term.

are copying ill-adapted global strategies and technologies not suitable to the local realities.”<sup>54</sup>

Often operating under the health departments of municipalities, solid waste services are generally undertaken locally, with significant injections of funding from national and other levels of government. However, complex policy and legislation can impede the capacity of even competent local government to deliver effectively.<sup>55</sup> This may affect such aspects as the transfer of skills and resources from the state, and the right of local authorities to administer and manage their own affairs, promote grassroots development and strengthen local governance.

The lack of resources inevitably complicates the situation. For example, the city of Harare was fined by the Environmental Management Authority (EMA) for failing to properly manage waste, among other problems.<sup>56</sup> The municipality was ordered to address the issue immediately, but lacked the capacity to do so. For instance, it only had 20 waste compactors, while at least

## Solid waste management

Solid waste collection is perhaps the most visible aspect of poor service delivery within cities, largely because funds have not accompanied decentralization. Throughout Africa, littering, illegal dumpsites and drains clogged by waste are common in cities. Only a minority of households receive door-to-door collections of waste, and those that do tend to be upper-income households in formal areas. Waste per capita in the continent is relatively small, but it is growing fast. Eric Achankeng noted that the delivery of effective solid waste management in Africa is “all a history of trials and abandonment with many issues seemingly unresolved. Africa’s national and urban governments

## Challenges of solid waste management in Africa



Competition between spheres of government leading to internal conflicts



Unfunded municipalities to realize their mission



Complexity of local policy & need for capacity-building for municipalities



No consideration for the poor



Poor management techniques



Enhance recycling process

<sup>52</sup> Gorse and Chouteau (2008).

<sup>53</sup> Banerjee and Morella (2011).

<sup>54</sup> Achankeng (2003).

<sup>55</sup> Law No. 055-2004/AN 21 December 2004 the General Code of Local Authorities in Burkina Faso.

<sup>56</sup> [http://www.africanews.com/site/list\\_message/37618](http://www.africanews.com/site/list_message/37618)

60 would have been required to cover the whole of the city. Ratepayers, and even the national government, were not paying the city what they owed it, placing it in a precarious position.

While many councils get subsidies from national governments for providing cleaning services, others have to rely on local taxes. However, poor revenue collection and the inadequate capacity to deal with non-payment make the system unsustainable.<sup>57</sup> Nevertheless, there are cases where funding shortfalls have been addressed. In Cameroon, for instance, local government provides for the removal of rubbish through a direct subsidy of around 60% of the cost of waste removal services. Urban councils pay the balance and control the private firm HYSACAM, which is in charge of the removal of household waste. This money is recovered from a levy on formal sector employees.

In almost all cities, the private sector and civil society are also involved in providing solid waste services, although the degree of involvement varies. In Addis Ababa, for example, the government services well over half of all households; in both Casablanca and Lagos, private collectors are the primary players.<sup>58</sup> In Cotonou, restructuring the solid waste sector in the 1990s led to major improvements; but persistent government failure in coordinating different actors and activities, supplying infrastructure, and instituting dialogue between all stakeholders, has reduced efficiency and effectiveness.<sup>59</sup> In Benin City (and other Nigerian cities), both public and private provision are inadequate, particularly in terms of the differences in service between neighbourhoods.<sup>60</sup> In the end, locally specific solutions, particularly for low-income areas, are the ones that work best.

In Kinshasa, PPIAF assistance was sought to provide cleaning services, and a 2005

study recommended various modalities for private sector participation in solid waste management, as well as the legal, regulatory, and institutional frameworks and national policies related to cost recovery, landfill, and recycling. A EUR 22 million European Union project called *Programme d'Assainissement Urbain De Kinshasa* (PAUK), signed in November 2007, assisted in the development of improved solid waste public management systems for the communities of Gombe, Barumbu, and Kinshasa. By October 2010, waste transfer stations had been installed in several locations of the three communities. Cart-waste collectors collect the solid waste in the city and empty it at these transfer stations. All solid waste is then transported to a site in Mpsa, approximately 30 km from the city centre, where a new solid waste treatment plant is under construction, also funded by the PAUK.<sup>61</sup> Transfer stations, however, are rare in Africa, reducing opportunities for recycling or reuse.

Even programmes to encourage assistance from the private sector are, in many cases, hurried, poorly thought-out, and often based on models from high-income countries, rather than involving the poorest to participate in waste collection and recycling.<sup>62</sup> A case study comparing Bamako with Bangalore indicates the ways that community participation can improve effectiveness.<sup>63</sup> In a growing number of initiatives across Africa, municipalities are working more closely with community-based organizations around the collection and disposal of waste, particularly in informal settlements. In Durban, South Africa, for example, the municipality awarded over 370 community-based contracts to provide cleaning and solid waste removal services to cover slum areas. Contractors are awarded 3-year contracts and each must employ four local resident workers, half of them women. Each contractor must pick up waste weekly from households and



**Africa's national and urban governments are copying ill-adapted global strategies and technologies not suitable to the local realities.**



**In a growing number of initiatives across Africa, municipalities are working more closely with community-based organizations around the collection and disposal of waste.**

<sup>57</sup> Coad (2011).

<sup>58</sup> UN-Habitat (2008).

<sup>59</sup> Dedehouanou (1998).

<sup>60</sup> Ogu (2000).

<sup>61</sup> [http://www.ppiaf.org/sites/ppiaf.org/files/documents/PPIAF\\_Assistance\\_in\\_DRC\\_July\\_2011.pdf](http://www.ppiaf.org/sites/ppiaf.org/files/documents/PPIAF_Assistance_in_DRC_July_2011.pdf)

<sup>62</sup> Palczynski (2002).

<sup>63</sup> Muller et al. (2002) p. 241.



**Improved management capacity is vital in dealing with newer approaches, particularly those related to mitigating and adapting to climate change.**



### Box 2.1 Community clean-up initiatives in Kenya and Cameroon

In one area of Mombasa, Likoni, citizens and local officials decided to clean up one of the largest dumping sites, dubbed Mt. Lillian. The community came together to identify standardized trash collection points as well as employment opportunities within the trash collection industry. As a result of their work, Mt. Lillian was cleaned up and the community has now turned its attention to other trash dumps. Similar efforts to improve service delivery at the local level have begun in the western city of Kisumu.

In Douala, the city has declared “cleanliness days” where officials leave their offices for the day to clean the streets. To encourage community members to do likewise, they are given transport and refreshments by the council.

*Source: International Republican Institute (2012) and discussions with city officials.*

move it to a municipal recycling and disposal centre. This approach costs just a third of the formal system.<sup>64</sup> In Bamako, over sixty informal organizations are involved in waste collection. The local government has adopted a positive attitude towards these groups, and has actively worked to ensure that they are part of the waste collection solution. This has involved a substantial effort on the part of the local government to strengthen, educate and develop common goals with community organizations.<sup>65</sup>

Weaknesses in institutional structures often prohibit these types of strategies from becoming more common across Africa. Overall, there is no single ‘best practice’ in terms of the public-private mix. Efficient and effective solid waste services clearly depend on cooperation between the sectors, and the local context is very important in finding good solutions (Box 2.1).

Management capacity remains a central problem. In Freetown, Sierra Leone, this is being addressed, albeit on a small scale, under the auspices of the Local Councils Association of Sierra Leone, where the CLGF’s Good Practice Scheme provides a practitioner-to-practitioner model to build local government capacity in designing and implementing strategies responsive

to community needs.<sup>66</sup> They have also encouraged the building of stakeholder relationships to ensure financial sustainability and value for money appropriate to the needs of service users.

Improved management capacity is vital in dealing with newer approaches, particularly those related to mitigating and adapting to climate change. The use of the Clean Development Mechanism (CDM) facility of the World Bank requires local expertise and understanding, as Durban found out in developing Africa’s first CDM methane gas to electricity projects. Investment in this capacity had its rewards, however; just one of these projects at a landfill site generated 6.5 MW/year, about USD 7 million worth of electricity over the past four years.

When it comes to reducing, reusing and recycling, while there are many good intentions and small projects, the scale of recycling is not large. There are very few examples of organized composting in Africa, for instance, although informal recycling and organic waste treatment, including the registration and training of informal waste collectors is increasing across cities. Interestingly, there is probably more reuse of waste materials than recycling proper. Recycling is a complex activity, requiring relatively significant

<sup>64</sup> Kadalie (2012).

<sup>65</sup> Kéita (2001).

<sup>66</sup> Commonwealth Local Government Forum (2012).

financial and other resources.<sup>67</sup> A study in Bamako and Ouagadougou showed that when urban waste is seen, not as a dangerous nuisance, but as a source of nutrients for agriculture, then opportunities exist to deliver waste that has been sorted, though not composted, to peri-urban farmers.<sup>68</sup> At the same time, uncertain land tenure can complicate the safe disposal of dangerous elements in solid waste. Ensuring that local realities are understood enhances contracting arrangements.

### Public transport and roads

The rapid growth of many African cities has not been matched by a proportionate growth in transport infrastructure and the development of organized public transport.<sup>69</sup> In large part this is because the history of colonialism and limited controls on urban growth have resulted in low-density urban sprawl, with patches of high density in informal settlements. When combined, these make the provision of public transport, roads and other infrastructure a costly undertaking. The situation is further exacerbated by a lack of integration between planning for roads and urban and settlement planning. Responsibilities for these are often split between different levels of government and professions, with engineers dominating transport planning and planners dominating land use planning. The problem is deeply rooted and many cities have not even updated their Master Plans from colonial times, when plans were developed for city populations one-tenth the size of the current cities.

Very few cities outside of South Africa and Northern Africa have long-term strategic plans and short-term development plans tied to realistic and attainable budgets. Only over the past few years, and with funding support from international agencies, have cities started to put together such plans. Obviously a critical dimension is the config-

uration of transport infrastructure and a focus on integrated public transport systems.

Not unlike the delivery of other basic services, the roles and responsibilities in the development and management of public transport and provision of roads are fragmented.<sup>70</sup> In Nigeria, for example, the respective roles of federal, state and local governments in providing and maintaining urban transport infrastructure are unclear. The public transport sector is supervised at the federal level by the Federal Ministry of Transport and at the level of Lagos State by the State Ministry of Transportation. Within Lagos, different levels of government are responsible for the infrastructure of different routes. Local government is responsible for managing approximately 67% of urban roads,<sup>71</sup> but lacks the necessary funding (and the ability to raise funds) to secure the technical and other resources and expertise necessary to deliver this service efficiently. In Kenya, the constitution gives local government responsibility for county roads, street lighting and street parking, but local governments are unable, in many cases, to raise sufficient funding to provide the required level of service.<sup>72</sup> Other significant players in Kenya are the Ministry of Transport, responsible for overall multi-modal transport sector policy; the Ministry of Roads and Public Works, responsible for the formulation and coordination of road subsector policy; the Ministry of Local Government, responsible for policy formulation for local authorities, which, in turn, are responsible for urban and unclassified rural roads; the Kenya Wildlife Service under the Ministry of Tourism and Wildlife, the implementing agency for roads in National Parks and Reserves; and the Forest Department under the Ministry of Environment and National Resources, which manages roads within designated forests. It is an enormous task for local governments to manage these ministries to co-ordinate road provision within their areas of jurisdiction.



**Very few cities outside of South Africa and Northern Africa have long-term strategic plans and short-term development plans tied to realistic and attainable budgets.**

<sup>67</sup> Scheinberg (2012).

<sup>68</sup> Eaton and Hilhorst (2003).

<sup>69</sup> For our purposes, “public transport” refers to various forms of collective transport. It includes organized transport, which runs along pre-defined routes according to a schedule, as well as informal transport, which does not.

<sup>70</sup> Kouakou (2010).

<sup>71</sup> Oni and Okanlawon (2006).

<sup>72</sup> Republic of Kenya (2009).





**Local sources of revenue in Africa are quite limited, unlike countries where property rates play an important role in providing funds for road development.**

Many local governments have established specific structures to manage transportation within urban areas. For example, in Mali, the Bamako Regulatory Office of Urban Traffic and Transport manages transportation and traffic and is responsible for controlling transport operators working within the city. Similarly, in Dakar, Senegal, the Executive Council of Urban Transport in Dakar (CETUD) was established in 1997 to implement a programme for urban mobility to build the capacity of stakeholders in the transport industry. It is responsible for road safety measures, as well as for the renewal of the public transport fleet, and rehabilitating the city train, known as *Petit train de Banlieue*.

In most cities, road reserves are ignored and businesses and residences crowd the side of roads. There is very little planning enforcement and the result is unsafe conditions on poor roads. However, increasingly, “get tough” policies are being implemented with cities now demolishing structures illegally located in road reserves and starting to ban unpermitted public transport, particularly the motorcycle taxis. Two outstanding examples are the formation of the KCCA in Kampala, Uganda and the Port Harcourt Authority in Nigeria. In both cases, authorities have realised that, unless clear

environmental and development planning guidelines are adhered to, cities will grind to a halt.

A number of cities are looking at how they can, within their current budget constraints, introduce mass transit measures (e.g. Harare). Difficulties in this regard include the lack of knowledge about how to develop and manage effective procurement arrangements (i.e. PPPs), and the ability to make such mass transit projects attractive to private sector investors.

Funding remains the biggest challenge for most cities. In part, this is because local sources of revenue in Africa are quite limited, unlike in countries where property rates play an important role in providing funds for road development. Instituting measures to raise local revenues will take some time, given the need for GIS, billing systems, and the registering of addresses.

### Electricity

The vast majority of African countries have retained a model for electricity generation, transmission and distribution with strong central control and national government playing the major role in all aspects of the business (see Box 2.2). Different means are used to execute this control, from single national utilities (sometimes even including



#### Box 2.2 Municipalities distributing effectively: the case of South Africa

In South Africa, ESKOM has the practical monopoly over the bulk of electricity in the country, and maintains the national grid. Whilst legislation allows for Independent Power Producers (IPPs), currently ESKOM generates approximately 95% of the electricity consumed in South Africa.

An attempt was made to create Regional Electricity Distributors (REDs) but, after almost a decade of discussion, the cabinet decided that distribution should continue to be handled by the 175 re-distributing municipalities. This allows municipalities benefits such as increased revenue, greater ability to borrow funds and leverage to improve the collection of other monies owed to the municipality.

Source: *Personal involvement*



water) to a number of utilities dealing with generation, transmission and distribution.

Twelve countries (representing 7% of total electricity generation in Africa) have privatized the electricity sector to some degree and, in some cases, government has ceded control of the generation, transmission and distribution of electricity to the private sector, albeit with strong public regulations and price controls.<sup>73</sup> The models of privatization adopted vary. In Mali, Equatorial Guinea, Gabon and Cape Verde, national governments have retained fairly significant ownership in the power sector. Nigeria, on the other hand, decided to go for a competitive model, where the electricity business is divided into 18 companies: 6 generators, 11 distributors and 1 transmission company. In Uganda, the business, but not the assets, have been privatized. Most of these privatized models have gone for a single buyer solution, in which all private sector electricity producers must sell into the national grid, at prices set nationally.

At the same time, increasingly, Independent Power Producers (IPPs) are being encouraged. In Kenya, for example, some 30% of the generation of power comes from IPPs and, in Egypt, some Build, Own, Operate and Transfer projects have been launched. Indeed, as IPPs are usually locally-focused, taking advantage of local opportunities and geared to a green economy, the potential for local partnerships is great. In Big Bend, Swaziland, locals will benefit from both job opportunities and electricity provision from the Ubombo Sugar Limited's co-power generation plant project. The electricity the plant sells to Swaziland Electricity Corporation is enough to supply the whole of Mbabane.

Importantly, except for South Africa, Morocco, Kenya and a few other smaller cases, almost all countries have adopted a model in which all aspects of the industry are controlled at the national level (whether

by the private sector or government). South Africa is different: over 170 municipalities are involved in the distribution of electricity. These municipalities generally make a profit from electricity which can be utilised for other developmental purposes within municipalities.

Many African cities have recently been exploring solar alternatives as a way of dealing with the shortage, high costs or unreliability of the electricity supply. This includes replacing street lights with solar LED signals (such as in Harare) or lighting households with solar. Harare has also recently engaged in a strategic partnership to convert biogas into electricity at their sewage treatment works, and is looking for a partner to manage the biogas at their landfill sites.

The development of electricity in African cities is a vital part of the overall integrated development process. The advantage of cities playing a key role in at least the distribution of electricity at a municipal level means that planning and development can be properly coordinated and implemented. In addition, electricity cables are important networks for ICT and business-related ventures, all of which assist in a city's overall economic growth and make for better cost recovery. Providing electricity can also allow cities to improve their effective credit control by using the threat of electricity cut-offs in cases of non-payment for other local services.

### Local government financing of basic services

Given that access to basic services in Africa is generally quite poor, and that the delivery of these services is constrained by the fragmentation of authority, poor planning and development, it is important to briefly review what needs to be done to mobilise financial resources.



**In Africa, infrastructure spending is between USD 40-50 billion per annum. Recent estimates suggest, however, that around USD 93 billion is required.**

<sup>73</sup> These countries are Cameroon, Niger, Nigeria, Uganda, Gambia, Kenya, Cape Verde, Gabon, Somalia, Equatorial Guinea and Mali. Countries which failed in their attempts to privatize the power industry, due to a lack of bidders or other reasons, include: Senegal, Libya, Chad, Mauritania, DRC, Congo, Madagascar, Togo, Tanzania and Rwanda. See also <http://www.psimu.org/sites/default/files/2013-01-E-Africa.docx>, section 4 and section 5.5.2.



**Only a small proportion of infrastructure spending is planned for, managed or financed by local governments.**

### ***Infrastructure funding in Africa: the status quo***

Presently, in Africa, infrastructure spending as a whole is between USD 40-50 billion per annum. Recent estimates suggest, however, that around USD93 billion is required per annum, two-thirds for capital works and one-third for operations and maintenance.<sup>74</sup> Of this about 43% would be for power needs, 18% for transport infrastructure and 23% for water and sanitation. It should be noted that the cost of providing infrastructure in Africa is among the highest globally.

In addition to state funding, resource rich and middle-income African countries are able to access private sector financing for this infrastructure, whilst the low-income countries rely almost exclusively on overseas development assistance as the only additional source of funding to that of the state. Multi-lateral institutions and development banks (such as AfDB and WB) have been actively involved in packaging projects, but the scale of the infrastructural requirements is far greater than the resources available. The OECD continues to encourage private sector investment, but when it comes to direct private sector investment in infrastructure, private investments in other basic network infrastructure is very limited (with a few exceptions such as ports and the ICT sector).

Only a small proportion of infrastructure spending is planned for, managed or financed by local governments. Whilst best practice does show that a range of different sources is required for the successful building, operation and maintenance of infrastructure, this is the exception rather than the norm in Africa.

The massive shortfall in investment in basic services infrastructure is compounded by the ineffective use of what resources there are. For the water and sanitation sectors, for example, an infrastructure assessment

several years ago estimated that weak governance and inefficiencies can account for a loss of 0.2% of GDP, or USD 1 billion a year. The main recommendations were: to improve governance of utilities, ensure maintenance of infrastructure assets, realize institutional reforms for tackling utilities' operational inefficiencies, improve planning to address deficiencies in the budgetary process, emphasize cost recovery from those who can afford it and recast subsidies to accelerate access. The gains that could be realized through these reforms were estimated at USD 2.9 billion per year, reducing the financial gap in the resources needed for the water and sanitation sector to USD 11.9 billion.<sup>75</sup> For the great majority of countries, except low-income countries and fragile states, the investments needed in water and sanitation could be achieved by a 10-year investment programme costing less than 1% of GDP per year, and would deliver significant socio-economic benefits.

### ***Municipal involvement in infrastructure***

The capacity of African cities to deliver better basic network infrastructure is constrained by both financial and human resource capacity. Municipalities in South Africa and, to a certain extent, in northern African and resource rich countries (from oil and mineral revenues), stand apart from the rest of the continent, in part because of their economic strength, but also because of the range of development functions performed by local governments in the country. For example, local governments in South Africa represent about 20% of the operational budgets of all spheres of government and are involved in about 15% of all capital projects in the country as a whole. In Nigeria, local governments are constitutionally entitled to a 20% share of federal revenues. However, these are exceptions. Most capital expenditure on infrastructure in Africa is undertaken by national or state

<sup>74</sup> Foster and Briceno-Garmendia (2010).

<sup>75</sup> Gorse and Chouteau (2008).

governments. In most cases, countries cannot count on adequate transfers for the operation of basic services. There is a clear need for long-term financial modelling for the provision of basic services.

A simple indication of the lack of municipal financial and human resource capacity may be found by comparing budgets across municipalities. In drawing such comparisons, though, one should bear in mind that around two-thirds of municipal employees in cities like Yaounde are educators, and few work in development functions. In addition, employees of local governments are

seldom well-paid, resulting in poorly qualified staff in municipalities. Table 2.3 shows the differences in municipal expenditure across a selection of African cities.

Increasingly, more cities across the continent are assuming roles in providing and maintaining the infrastructure for basic services. This is evident in a number of ways. In Harare, for example, the municipality was included in national negotiations with Chinese investors and the Harare City Council ended up signing a USD 144 million deal for water and sewerage piping, waste management and upgrading the city's ICT.<sup>76</sup>



**The capacity of African cities to deliver better basic network infrastructure is constrained by both financial and human resource capacity.**

**Table 2.3 Municipal budgets and payments to municipal employees, selected African cities (USD)**

| Municipality                     | Municipal employees | Population (X 000) | Total budget per person (in USD) |
|----------------------------------|---------------------|--------------------|----------------------------------|
| Johannesburg, South Africa       | 25000               | 3800               | 1000.4/701.89*                   |
| Accra, Ghana                     | 5567                | 2291               | 17.5/12.53*                      |
| eThekweni, South Africa          | 22732               | 3720               | 821.5                            |
| Nelson Mandela Bay, South Africa | 6594                | 1258               | 777.6                            |
| Cape Town, South Africa          | 25881               | 3795               | 813.0                            |
| Windhoek, Namibia                | 1930                | 334                | 821.2                            |
| Mandlakazi, Mozambique           | 127                 | 25                 | 65.5                             |
| Kigali, Rwanda                   |                     | 1168               | 53.5/39.84*                      |
| Walvis Bay, Namibia              | 504                 | 65                 | 685.2                            |
| Bamako, Mali                     | 1056                | 1926               | 22.4/5.7*                        |
| Abidjan, Cote d'Ivoire           | 2000                | 4351               | 0.02                             |
| Yaounde, Cameroon                | 462                 | 2440               | 16.0                             |
| Saint-Louis, Senegal             | 340                 | 176                | 21.7                             |
| Addis Ababa, Ethiopia            |                     | 2800               | 91.0*                            |
| Dakar, Senegal                   |                     | 2271               | 22.4*                            |
| Dar es Salaam, Tanzania          |                     | 2869               | 29.44*                           |
| Kampala, Uganda                  |                     | 1408               | 29.20*                           |
| Maputo, Mozambique               |                     | 1094               | 43.8*                            |
| Ouagadougou, Burkina Faso        |                     | 1520               | 22.5*                            |

Source: Figures obtained by the authors from the cities; those with \* are from Stren (2012).

<sup>76</sup> Harare presents 2012 service delivery plan, [http://www.herald.co.zw/index.php?option=com\\_content&view=article&id=31833:harare-presents-2012-service-delivery-plan&catid=38:local-news&Itemid=131](http://www.herald.co.zw/index.php?option=com_content&view=article&id=31833:harare-presents-2012-service-delivery-plan&catid=38:local-news&Itemid=131)



**Most African cities do not have sustainable financing for basic services where together with transfers from national governments, users also pay to ensure sustainability.**

Kigali, on the other hand, put forward a development budget where half the finance was to come from national government and the remainder from residents.<sup>77</sup> The biggest portion of the budget was allocated as a lump sum to such infrastructure projects as the construction of roads and drainage systems. In the case of sewerage systems, provision had not yet been made as planning was still underway.

These are just some examples of cases in which local government leaders and officials are taking a far more active role in ensuring the financial resources are put in place to affect the delivery of basic services.

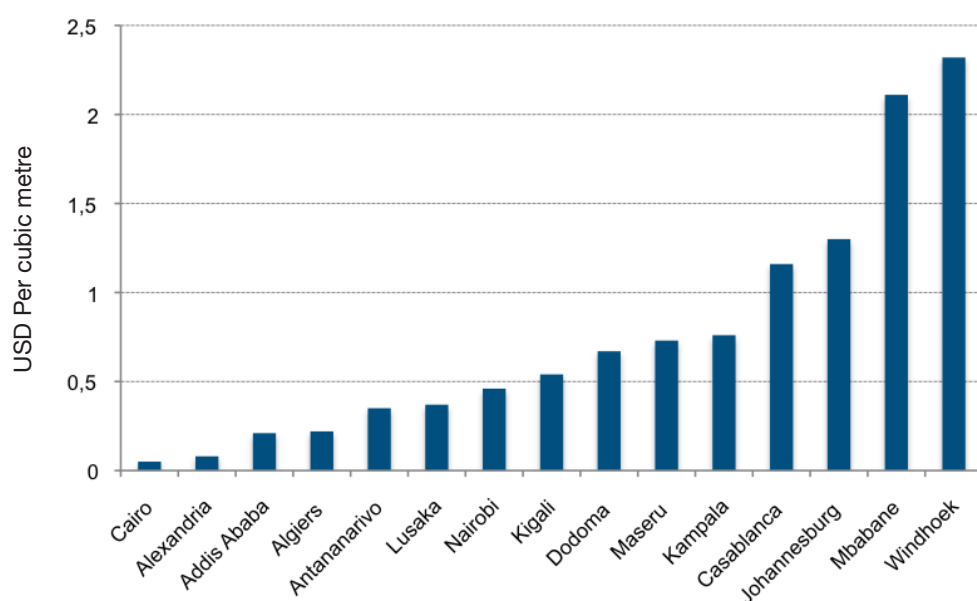
#### ***Tariffs for basic network services***

Whilst comparative figures are not available for cities across the continent as a whole, except for South African, northern African and a few other major cities, most African cities do not have sustainable financing for

basic services through which, together with transfers from national governments, users also pay to ensure sustainability. In addition, because of the fragmentation in responsibility across Africa, tariffs are largely set for each basic service in isolation, and are often not economically viable without government covering the shortfall. It is not simply the variability in tariffs, but the overall viability and sustainability of the financing models that requires further exploration.

Overall, tariffs in Africa are much higher than other parts of the world. This is a reflection, in part, of the very high cost of providing infrastructure. One estimate shows water tariffs ranging from USD 0.86 to 6.56 per cubic metre in Africa versus USD 0.03 to 0.6 per cubic metre for low and middle income countries more generally. Power tariffs range from USD 0.02 to 0.46 per KWh in Africa compared with USD 0.05 to 0.1 per KWh in other countries.<sup>78</sup>

**Figure 2.6 Water tariffs in a selection of African cities**



<sup>77</sup> <http://www.hope-mag.com/news.php?option=lnews&ca=1&a=388>

<sup>78</sup> Foster and Briceno-Garmendia (2010).

Source: African Development Forum (2010).

Across the continent, though, water tariffs range enormously, as can be seen in Figure 2.6.

### ***Dealing with the debate over rights-based versus user-pays principles***

Across Africa, each of the basic network services are funded differently. In general terms, water and electricity receive some national subsidies and have differential tariff rates for different income levels, while sanitation and solid waste rely largely on local funds and user charges. Public transport depends on user payments.

The funding of these basic services is often viewed in either-or terms: either one adopts a rights-based approach and ensures that access to all at any price is granted; or a user-pays approach is adopted that requires users to pay for these services. Most African cities have made attempts to create a differential tariff model to subsidize provision to the poor. In Bulawayo, Zimbabwe, for example, the municipality funds differential tariffs with the first 5 kilolitres of water provided for free. South Africa's Free Basic Services are subsidized by national government. Unfortunately, and particularly given that most African countries are low-income countries, approaches are needed that include a degree of cross-subsidization to ensure access for the poor, while also ensuring that overall financial viability and sustainability of operations is not unduly threatened.

In South Africa, contributions from service charges fluctuate between 40-55%; property rates (the only separate tax, although there might be three to five other very "small" taxes) about 15-17% and transfers from national government about 20-33%. National government subsidizes the provision of basic services to poor households through a Local Government Equitable Share formula. Similar situations are found, or are beginning to emerge, across the larger African cities although proper property descriptions and planning programmes need to be put in place in order to ensure users pay.

Where cities do collect revenue for services, payment levels are often only around 70%. Bulawayo, Zimbabwe, reports a 92% collection rate for water, but only a 74% collection rate for solid waste. Their non-revenue water sits at around 35%, which means that one-third of the city's water costs are not recouped. In some cases, government is the delinquent payer for services; the City Council of Mombasa, for instance, has accused the Kenya Ports Authority of contributing to the council's inefficient service delivery, because of their continual challenges over levy increases, including those for solid waste collection, all of which end paralyse the municipality.

Given the importance of revenue collection, proper revenue management systems must be in place, including property descriptions and address databases. Most of the major African cities are prioritizing these governance issues.



**Given the importance of revenue collection, proper revenue management systems must be in place, including property descriptions and address databases.**





Photo: Khym

## 2.5

### Existing and emerging challenges and trends

#### The unavoidable role of small and medium size service providers

One of the major problems for the governance of basic services in Africa lies in the dual nature of urban conglomerations. Informal, often illegal, neighbourhoods proliferate alongside central areas where access to basic services can more easily be organized. Support infrastructure for basic services takes a long time to reach these informal areas. Many inhabitants in these areas depend, and will continue to depend for the foreseeable future, on the intervention of small independent operators from the informal sector who provide services to the poorest in society, often at a higher cost than is paid for these services in the richest neighbourhoods. Africa's local authorities must acknowledge this fact as a potential asset and build on it. They could contribute to designing a global policy for basic service provision that does not capitulate to the status quo, but rather manifests an aspiration for equality and inclusive urban or regional management.

In this respect, a focus for local authorities is to consider the diverse means of access and service quality actually in place, so that they can design and implement equalization

systems within and between services. This type of mechanism presupposes that the local authority has the legal means to act or can assume the means to negotiate with official operators where service management is not their direct responsibility. In peripheral neighbourhoods, the local authority should survey the variety of independent operators on the ground so as to regulate their interventions, guarantee service quality and reliability, verify the definition and application of tariffs coherent with people's standard of living, and structure their actions to be compatible with those of the official service operators. Most African local authorities do this badly or not at all. Local authorities are also responsible for organizing healthy competition between informal sector providers so as to avoid illegal agreements that are detrimental to users.

Local authorities should also encourage the creation of user or consumers' associations, as these can play an essential role in evaluating the satisfaction of service beneficiaries. Finally, it is the responsibility of national and local authorities to promote dialogue between (national and local) public authorities, official and informal operators (public and private), social partners (trades unions and professional organizations) and service users/consumers. The case of the 'quadrilogue' (four-way) talks implemented in Togo and Benin, which led to the adoption of a Charter for Basic Services by common consent, is an innovation in governing basic services from which many local and national authorities in Africa could take inspiration.

### The partnership issue

The question of partnership between public authorities and other stakeholders lies at the heart of the issue of the governance of basic services. First, because financing investment implies the use of a financial intermediary to raise the necessary funds

from the banking system or financial market; second, because the technical nature of the necessary actions requires specialist operators to implement the technical, legal and financial structures needed to manage the various chains in the subsidiary services network; and, finally, because the scale and speed of demand cannot be solely met by public authorities alone.

For all these reasons, most African states and local authorities need to enter into partnership with the private sector in one form or another, be this simply through a financial structure or through a more complex combination of several levels and types of partnership. Local authorities face two important questions: how can they be sure of the long-term economic viability of the partnership? And, how can they equip themselves to genuinely manage this partnership, given that the private partner often has better tools and training in the complex operations in question? At present, there is almost no local authority in Africa capable of facing this double challenge. The experience of Morocco is illuminating. The state implemented a specialist directorate at the Home Office to support local authorities in negotiating PPPs to ensure that they not lead to a dispossession of public decision-making capacity due to a lack of skill. However, even where the state lacks the ability to advise local authorities, it can be hoped that other regional authorities, UCLG members with tested experience in this type of partnership, can provide assistance to local authorities in Africa, who are often novices in this field. For this reason, towns and regions in Africa would like UCLG to establish the independent capacity to support members that want to prepare themselves for handling PPPs in the field of basic network services. UCLG should collect information and international performance benchmarks as well as good and bad practices in the field of PPPs for basic network services. Distributing this material



**Informal, often illegal, neighbourhoods proliferate alongside central areas where access to basic services can more easily be organized.**

systematically would be a useful contribution to reinforcing local authorities' project management capacity in Africa.

### The lack of upfront planning for the basic services

The lack of regional planning and of spatial and temporal coherence between the various national, sectorial strategies for basic network services is a critical problem for basic service provision. The old adage that "he who fails to plan is planning to fail" applies to basic network services more than any other area. The fact that most African cities and towns are subject to frequent power and water cuts, as well as experiencing a growing gap between exponentially increasing demand and (at best) stagnant service provision, as well as a continuous deterioration in the quality and level of services, demonstrates the damaging effect of a lack of planning.

The governance of basic services is inevitably linked to long-term planning for urban or regional development. Over the past 20 years of structural adjustment policies, most African countries have lost sight of the long term, despite the fact this is the horizon for structural adjustment. They have also neglected to take the spatial dimension of development into account, despite the local nature of all modernization efforts. African managers are used to making urgent decisions without considering their local context. With very few exceptions, this results in a cumulative delay in investment, which leads to the sustained deterioration of the quality and continuity of service, a blatant lack of infrastructure maintenance, a decline in people's quality of life and less business competitiveness.

The major challenge for governing basic network services in Africa therefore lies in restoring the discipline of strategic planning for urban development and the investment involved. Basic network service planning

must go hand in hand with land use planning at all levels of governance. Strategic planning decisions must consider the fact that the support infrastructure for basic network services has a major local impact, which translates into a need for continuous land management by the public authorities. Freeing up land can present complex problems. Organizing and scheduling the release of land must be considered well in advance to avoid the process being delayed and debt-laden.

Moreover, the uncoordinated implementation of infrastructure for various services can lead to repeated roadworks, creating (at best) an incessant nuisance for users and (at worst) accelerating the deterioration of roads and existing infrastructure. If major progress is to be made in this respect, local authorities must be responsible for coordinating work on public space within their jurisdictions, which implies developing their capacity in terms of planning and filing localized information related to the basic services. Currently, most regional authorities in Africa are sidelined from this rationalization process, despite the fact that public space is one of the areas under their jurisdiction.

Good planning for services to specific settlements also requires an adequate understanding of the numbers of people living in each settlement and their needs. This can be especially difficult in the case of informal settlements, where little or no data is collected. However, there are numerous examples of how communities, particularly in slums, have undertaken data collection and mapping to gather information on their own settlements in order to inform the work of government. In the town of Epworth, near Harare in Zimbabwe, for example, an innovative mapping project has been undertaken with community assistance, showing how maps can be developed to allow for better planning for the delivery of services and layout of land plots.<sup>79</sup> This is also happening in Lusaka in the framework of the



**The governance of basic services is inevitably linked to long-term planning for urban or regional development.**

<sup>79</sup> Chitekwe-Biti et al. (2012) pp. 131-148.

“Now Your City Campaign” jointly launched by UCLG-A and SDI, with the financial support of the Cities Alliance.

### A momentum for alternative solutions

The immense backlogs in basic service infrastructure development compel African cities and local governments to look for alternative solutions to centralized grids and networks. It is increasingly unrealistic to imagine that whole cities will be served in the near future. On the contrary, evidence shows that in many African cities traditional responses will not be possible and affordable for the majority of city-dwellers. Progress in mobile phone technology and access is making the installation of landline infrastructure less urgent. The same kind of evolution is forecast for energy and sanitation. Many cities, like Dakar in Senegal, are beginning to adopt solar panels for their street lighting, instead of relying solely on the expansion of the network grid. This evolution could potentially change the approach to energy distribution, with individual solutions increasingly complementing or even replacing classical solutions.

To some extent, this applies also to sanitation in situations where inner city and peripheral slums are effectively cut off from conventional services, either because of inability to pay for services, or the lack of infrastructure. As long as there have been informal settlements, people have come up with on site solutions for sanitation. However, increasingly, solutions are being developed that can provide safer, healthier alternatives in areas where connections to the network are simply not feasible. Approaches like the dry sanitation implemented in some Southern Africa cities, and the use of natural environmentally safe methods for processing wastewater, already successfully deployed in Kenya, are showing promise as alternatives.

### Adapting to climate change and increasing natural disaster threats

Africa is especially vulnerable to the growing risks associated with climate change, despite the fact that it is the region least responsible for contributing to the situation. The impacts of climate change, current and long-term, include changes in rainfall patterns, resulting in both droughts and unusually intense rain, rising sea level affecting low-lying coastal areas, and rising temperatures in many places. Effects are being felt in food production and food security, water stress and water security, shifting vector-borne diseases and the need in many places to cope with repeated flooding.<sup>80</sup>

Because of the continent's poverty and weak capacity, and because its economic activities and livelihoods depend so heavily on natural resources, variability in climate can have catastrophic effects, contributing to famine, disaster and displacement. The less catastrophic effects are also highly significant – hunger, loss of livelihoods and property, illness and the daily complexities of survival in the face of growing challenges.

Building the capacity of vulnerable people to adapt to climate change is critical. This is particularly the case in urban areas, which concentrate large numbers of people and enterprises, making them especially vulnerable, particularly in the context of the very large deficits in protective infrastructure. Most cities across Africa are beginning to experience the effects of climate change, and it is critical that they develop locally rooted strategies for responding to both current and anticipated threats. Although mitigation strategies are urgently needed everywhere, in Africa adaptation must also take priority. This cannot happen without addressing the fundamental development challenges around basic infrastructure.<sup>81</sup>



**Evidence shows that in many African cities traditional responses will not be possible and affordable for the majority of city-dwellers.**

<sup>80</sup> IPCC (2007). Fourth Assessment Report. [http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.htm](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.htm)

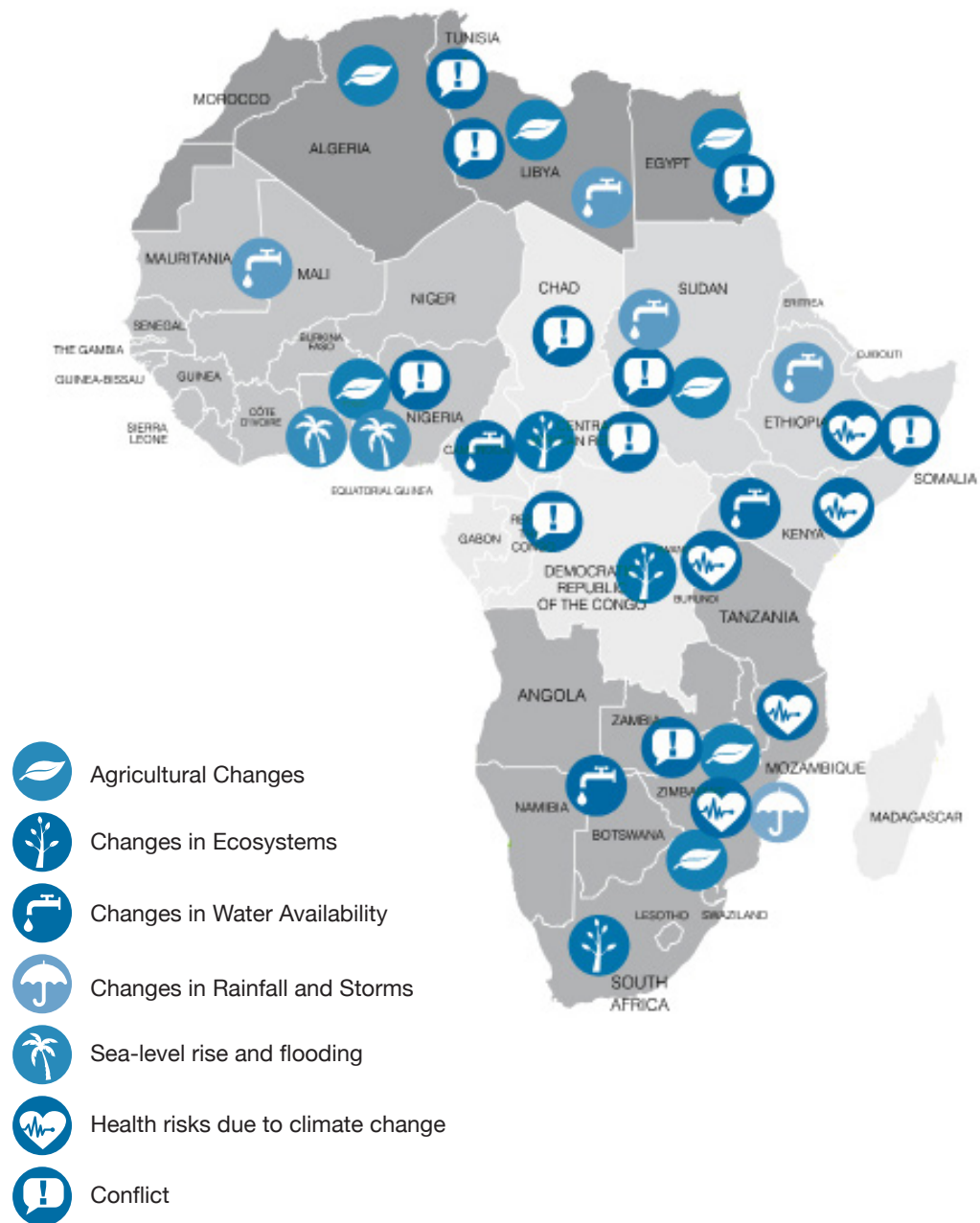
<sup>81</sup> Bicknell et al. (2009).



Figure 2.7 illustrates some of the key issues arising out of the work of the IPCC.



Urban slums in Africa house many of the people and enterprises most seriously at risk from extreme weather events and rising sea levels.



Source: IPCC (2007). Fourth Assessment Report.

[http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.htm](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.htm)

Unfortunately, in almost every city where major infrastructure programmes are being undertaken, adaptation measures are not being prioritised. Across the continent, the people most affected by climate change are those living in poverty. This holds true

in urban areas especially. Urban slums in Africa house many of the people and enterprises most seriously at risk from extreme weather events and rising sea levels. They often live in the most hazardous areas – flood plains, or other areas at risk of floods,



places at risk from landslides during heavy rains, areas unserved by the kind of basic service infrastructure that can be strengthened and adapted to withstand more extreme conditions. Those in densely settled slums are also most likely to suffer from the urban heat island effect, with temperatures during heat waves commonly ten degrees or more higher than in surrounding areas. The poor are also the people least able to invest in preventive measures.

The signing of the Durban Adaptation Charter for Local Governments at the UNFCCC's climate change conference (COP17/CMP7) in 2011 provides an important opportunity to ensure collaboration among local governments in Africa as they prepare and implement integrated, inclusive and long-term adaptation strategies designed to reduce vulnerability. Given the need for significant improvement in the delivery of basic services, it is important that such plans ensure that municipalities can more easily address the impact of climate change.

### The affordability issue

Poverty is one of the greatest challenges, if not *the* greatest challenge we need to overcome if we are to rapidly address basic service delivery challenges in Africa.<sup>82</sup> Moving households towards provision that supports health, livelihoods and human rights must be a critical priority. However, this is unlikely to happen unless properly planned, infrastructural, financial and human resource strategies are in place.

A country's ability to provide "improved" basic services is largely dependent on national priorities, the overall economic base as well as a household's ability to pay. In Africa, all of these aspects are constraining factors and have undoubtedly affected the low levels of basic service delivery across the continent.

On the one hand, the fact that 60% of the countries in Africa are ranked in the 25%

lowest per capita GDP countries provides a clear indication that, in the short-term at any rate, the ability to pay for basic services will face economic constraints.

On the other hand, if people are employed, they are likely to be able to contribute to the payment for services, allowing for a progressive improvement of basic services in cities as local governments develop financially sustainable plans. The number of people formally employed in Africa is generally growing at a rate faster than the population growth rate. For the period 2000-2008, only ten countries had an employment growth rate less than the population growth rate. This is a very positive trend because it implies greater opportunity for the provision of more financially sustainable improved basic services.

At the same time, though, when one compares the employment growth rate with the urbanization growth rate a different picture emerges: cities are growing faster than the employment growth rate. This is also evident in the very rapid rate of informal settlement development in cities. It creates a situation where significant resources are required by cities to provide services to all their residents and unless these residents are employed, they may not be able to pay for such services.

As we have already noted, the proportion of the urban population living in slums across Africa is very high. As Table 2.4 indicates, out of 40 countries in sub-Saharan Africa, over half of the urban populations live in slums. This might not be too much of a problem if it involved relatively small numbers of people, but as Table 2.4 also shows, in countries like Nigeria, Ethiopia, Sudan and Democratic Republic of Congo, where there are over ten million people living in slums, the problem of how to deliver basic services becomes compounded.

Strategies to alleviate the terrible conditions under which the poor live in African



**Poverty is the greatest challenge we need to overcome if we are to rapidly address basic service delivery challenges in Africa.**

<sup>82</sup> Mitlin and Satterthwaite (2013) broaden the measurement of poverty beyond absolute poverty lines and their work highlights that understanding inequality in its multidimensional context directs us to find solutions that are multidimensional, covering all aspects of poverty and inequality.

**Table 2.4 Number and proportion of people in slums in African countries**

| # In slums      | <25% in slums | 26-50%       | 51-75%        | 76-100%       |
|-----------------|---------------|--------------|---------------|---------------|
| < 1 million     | Zimbabwe      | Lesotho      | Burundi       | Guinea-Bissau |
|                 |               | Namibia      | Eq. Guinea    |               |
|                 |               | Gabon        | Comoros       |               |
|                 |               | Gambia       |               |               |
| 1-5 million     | Morocco       | Senegal      | Congo, Rep    | CAR           |
|                 |               | Ghana        | Kenya         | Niger         |
|                 |               | Guinea       | Cote d'Ivoire | Sierra Leone  |
|                 |               | Cameroon     | Zambia        | Chad          |
|                 |               |              | Togo          | Madagascar    |
|                 |               |              | Mali          |               |
|                 |               |              | Malawi        |               |
|                 |               |              | Uganda        |               |
|                 |               |              | Rwanda        |               |
|                 |               |              | Somalia       |               |
|                 |               |              | Benin         |               |
|                 |               |              | Burkina Faso  |               |
|                 |               |              |               |               |
|                 |               |              |               |               |
| 6-10 million    | Egypt         | South Africa | Tanzania      | Mozambique    |
|                 |               |              |               | Angola        |
| Over 10 million |               |              | Nigeria       | Ethiopia      |
|                 |               |              |               | Sudan         |
|                 |               |              |               | Congo, D.R.   |

Source: United Nations (2008).



**In the absence of accessible, affordable infrastructure, poor people pay heavily in time, money and health.**

cities must be integrated into plans for the delivery of basic services. African cities, in particular, and Africa as a whole include the highest proportion of poor people without access to basic services. In the absence of accessible, affordable infrastructure, poor people pay heavily in time, money and health. While many countries and

cities have developed national pro-poor strategies, ways should also be found to integrate strategies into municipal plans for basic services. UCLGA needs to encourage the development and sharing of ways in which pro-poor strategies become mainstreamed.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

The following key messages can be drawn from this chapter on the governance of basic services in African cities:

- Progress in access to basic services is positively linked to a greater involvement of local government in their provision and delivery.
- Access improves when and where there is a multi-level collaborative approach in the provision and governance of basic services.
- Access to basic services is key to improve the living conditions of city-dwellers, to the competitiveness of local businesses, and the attractiveness of cities. Therefore, there should be a shared understanding across the continent that competitiveness of national economies is fundamentally linked to the quantity, quality, and sustainability of basic services.
- The infrastructure needed for providing basic services is capital intensive and has a long life span. This is why the development of this infrastructure demands financial resources accessible under concessional rates. National governments and the international community have an unavoidable role in the mobilization of the necessary funds for basic service infrastructure development. Public authorities should put basic services among the top items on their political agenda.
- The maintenance and management of the basic service infrastructure are not properly taken into consideration because of the inadequate definition of responsibilities among different levels of governments. Risks associated with the lack of maintenance include shortfalls in provision and a lack of efficiency in service delivery. This is a common situation in most African cities.
- One of the main problems facing the provision of basic services is the lack of upfront planning of support infrastructure associated with land use planning. Land use design merits serious consideration given its impact on urban density and on the energy ecological footprint of the city. It also has long term consequences for the urban structure of this infrastructure, especially because of its impact on land value and the functioning of the city. It is therefore recommended that long term strategic city planning becomes normal practice in all cities in order that infrastructure development occurs in a coordinated, coherent and timely manner. This is not yet the case in Africa.
- It is generally accepted that delivery of basic services should be the responsibility of local governments because they are the level of government concerned with the day-to-day life of city-dwellers, and with the creation of more inclusive cities. However, in Africa this is not an easy undertaking. Local governments



**Most African cities have a dual system of service delivery, a formal one covering part the city, and an informal one in the outskirts and informal settlements.**

struggle everywhere with huge urban growth, which creates moving targets in service delivery. Funding is inadequate to keep pace with the growing and evolving demands for services from diverse groups of city-dwellers.

- One of the daunting problems faced by local authorities in Africa is the affordability of services for the majority of city-dwellers, including the poor. The affordability issue raises a basic decision as to approach – should it be rights-based or market-based? This provokes hot debates among policy makers and with civil society organizations around political choices, and calls into question the use of business models for service delivery.
- The recourse to taxation, tariffs and transfers (the 3Ts) to finance the provision of basic services does not seem to be that efficient in African cities. The balance sheets of African local governments are barely positive and many of them still rely on grants from national governments or the donor community in order to cope with basic service demands. Access to lending and to the financial market is being recommended to cope with the growth in demand. However, given the financial limitations of most of national and local governments, there is a move towards PPPs. In recent years however, Africa has witnessed a downturn in PPP deals, as a consequence of the financial and banking system crisis of 2008. Furthermore, PPPs' upfront development expenses before implementation are huge, and expenditures for studies and legal pre-requisites can amount to around USD 10 million. Given the complexity of the governance models based on PPPs there is a need for a strong capacity building programme for African cities to acquire the skills needed to negotiate

and manage PPP contracts, and for the improvement of public regulation.

- For the time being, most African cities have a dual system of service delivery, a formal one covering part the city, and an informal one in the outskirts and informal settlements. This dual delivery system must be recognized, and local governments should adopt local policies that accommodate and interface the two systems in a single whole city delivery policy. Any service delivery system should be people-centered, guided by the principle of pragmatism and a diversity of solutions, and the choices of citizens following democratic debate. In that sense, debate around basic services is at the heart of the whole democracy debate.

## Recommendations

The following are the main recommendations arising out of this study into the delivery of basic services across Africa.

### 1. Achievement of MDGs

*The delivery of basic services should be made a national priority in order to achieve the MDGs and the Post-2015 Development Agenda.*

To achieve this, UCLGA regional and national associations should lead a process towards ensuring that national, regional and local development plans supporting the delivery of basic services are developed. These must specifically address issues of poverty, exclusion and climate change

### 2. Governance: institutional and legal frameworks

*Countries need enabling institutional and legislative frameworks for the provision of services and their funding.*

- Legislation must ensure the right to safe water - recognized by the UN as a human right - for all citizens. Gradually, the same principle should be applied to the other basic services (taking into account the right to a healthy and safe environment and the basic importance of mobility and access to energy).
  - Governments should revise legislation and institutional frameworks to ensure universal and quality access to basic services, based on the principle of subsidiarity, allowing adequate funding and human resources to local governments to ensure the fulfillment of their responsibilities.
  - Mechanisms should be developed to improve vertical and horizontal coordination and cooperation between different levels of government and between local governments to improve economies of scale and efficiency, as well as ensuring the development of financial strategies which address capital costs and ongoing operations and maintenance.
  - UCLGA can play an important role in bringing national and local governments across Africa together to discuss the most effective method of transferring responsibilities to local governments. This must also include debate on the budgets necessary to ensure that these services can be provided in a satisfactory manner.
- urbanization, sustainability, climate change and the increasing risks of disasters.
- For basic services to be delivered effectively, economically and efficiently, their policy and operational environment require better coordination, not only between local government and other levels of government, but across levels of government.
  - Standardized, consistent and reliable information is vitally important for the planning and provision of basic services. Municipalities should use plans and geographical information systems to guide and monitor development.
  - UCLGA should promote strategic urban planning and land management with a medium- and long-term vision. These are essential tools for structuring urban space, limiting urban sprawl, promoting less segmented and divided cities, promote diversity and social inclusion. To achieve these objectives, UCLGA can support the creation of a network of professionals and institutions focused on urban and land planning, and should ensure that censuses focus on collecting information relevant to these planning processes.



**The transfer of responsibilities requires local government to have more professionally skilled staff.**

### **3. Strategic planning and basic services**

*There is a need for outcome-based and measurable long-term and short-term Integrated Development Plans that ensure social, economic, financial and environmental sustainability.*

- Local integrated strategic plans need to be developed together with land use policies and zoning plans. These must respond to the growing challenges of

### **4. Reinforce local skills and management capacity**

*Local authorities need enhanced human resource capacities to deliver basic services.*

- National governments and local government associations need to develop guidelines based on best practice experiences for management models for service delivery (public-public, PPP models, procurements, contracts and specifications with appropriate indicators for monitoring). This should be done in conjunction with developing dedicated units to assist local





**Africa's high urbanization rates require the rapid supply of basic services. There is a critical need to improve the finances available to do this.**

governments on these issues and to provide them with legal and technical advice.

- Relationships with the private sector and development partners are important in gaining their support and engagement in public service delivery and observing the principles of equity and sustainability. In order to scale up the roles of the private sector and communities, ways should be found to share best practices and ensure that these actors add value to delivery and do not simply take for themselves the most profitable sectors, leaving governments to address the needs of the poor and vulnerable.
- The transfer of responsibilities requires local government to have more professionally skilled staff. Closer collaboration and exchanges between national and local public professionals can ensure that local governments have the expertise and knowledge to undertake their responsibilities.
- Programmes can be undertaken with tertiary institutions and professional associations (particularly engineering, accounting, auditing, and planning) to build management capacity within municipalities to enable them to deal with all aspects of service delivery.
- Delivery models that use the local workforce and, if possible, poor or informal workers by involving them directly in specific tasks (e.g. collection and recycling of waste), should be promoted and the managerial skills to do this should be enhanced.
- UCLGA should promote an African Academy for Local Governments to develop and improve relevant professional training programs for local government officers. Local governments that perform well should be identified, and hubs of learning and city-to-city cooperation on management issues should be encouraged.

## **5. Improved access to finance for basic services**

*Local government requires a consistent stream of funding for the provision of basic service infrastructure.*

- Local budgets need to be strengthened, with sufficient and sustainable sources of funding to provide basic services. There is a need for fiscal autonomy through locally raised revenue (through rates, user charges and tax base) which also ensure a consistent source of funding for basic service provision. There must be appropriate and dynamic local taxation, user fees/tariffs, and transfers (in a predictable, regular and transparent manner) to support service coverage. Local management capacity for collecting taxes and fees must be improved.
- Transfers from other levels of government should include equalization formulas to support poorer local governments or marginalized territories to guarantee basic equipment and service delivery
- Africa's high urbanization rates require the rapid supply of basic services. There is a critical need to improve the finances available to do this. Measures include access to credit or capital markets for investment in basic services as well as providing services through public-private partnerships. Local governments need to develop innovative sources for resource mobilization based on land assets and improvements. Mechanisms to achieve this could include creating alliances of municipalities to improve the credit trading, improving the management of land use and using the land market to finance urban development.
- There is a need to promote cost recovery of service provision through appropriate tariffs, improved metering of water and the maintenance of a database of users. This must be balanced with ensuring affordability for the poor. These

include pro-poor tariffs and financing mechanisms for service improvement, through such mechanisms as Free Basic Services and/or social tariffs that allow a form of cross-subsidization between neighbourhoods to reduce disparities in access to services. This could include such measures as the provision of a nominal amount of water and electricity either to all households or just to the most deprived, possibly through pre-paid meters.<sup>83</sup>

- Pro-poor strategies must guarantee not only affordability, but also access for the poorest sectors to basic services. This means the provision of facilities in communities of the poor, including water points with free water, sanitation facilities, rainwater harvesting, and community-based wastewater collection and treatment systems. It may mean finding alternative strategies for service delivery in poor areas, integrated on a city-wide basis.<sup>84</sup> Addressing the tenure and permanence of communities may also be a necessary step. Utilities and municipal authorities may need to be supported in including pro-poor objectives in their reforms and working jointly with local partners, CBOs and NGOs, and Small Scale Providers in these efforts.<sup>85</sup>

## 6. Participation and accountability

*Local government needs clear communication and participation strategies and access to information on basic services and participation in decision making (participatory budget, public consultation sessions, neighbourhood councils, etc.)*

- Efforts to provide for the poor are more effective if undertaken with their full participation. It is important to enhance the capacity of communities to apply for, manage, implement and maintain their own facilities, such as water and

sanitation plants.<sup>86</sup> This includes more formalised civil society engagement,<sup>87</sup> forming community-based organizations (CBOs) that can promote social development work and livelihood activities, undertake tariff collection, manage micro-credit schemes, technical operations and monitor results.

- A far more equal participation of women in the institutions of basic service delivery needs to be devised. This will help to ensure the necessary conditions both for more focus being given to gender sensitive services and for greater gender equality in society. This equal participation should occur in the political, administrative and community-based structures.
- Citizens' access to information and their ability to interact with government officials can be improved through the establishment of well located and accessible offices such as One Stop Shops with opening hours adjusted for working citizens.
- The fight against corruption can be strengthened through the development of watchdogs or ombudsman with a troubleshooting role. Citizen participation in the effort can be improved through such mechanisms as the inclusion of representatives of NGOs or community organizations on juries, or in monitoring service quality.



**A far more equal participation of women in the institutions of basic service delivery needs to be devised.**

## 7. Environmental sustainability

*There is a need to adapt and mitigate the effects of climate change at local government level.*

- Responding to climate change in Africa means primarily addressing the massive need for adaptation, and fundamental to this is the need to overcome widespread deficiencies in basic protective infrastructure, both to reduce

<sup>83</sup> Berg and Mugisha (2010).

<sup>84</sup> UN ESCAP (2009).

<sup>85</sup> Cross and Morel (2005).

<sup>86</sup> Mwaniki (2010).

<sup>87</sup> Cross and Morel (2005).



**Local government associations have an important role to play in improving local leaders' awareness of the need for policies that respect basic rights and universal access to basic services.**

the impacts of extreme weather and to strengthen people's capacity to respond and recover. The critical importance of adaptation provides, in effect, another powerful incentive for extending basic services to people and settlements that still lack them. All-weather roads and proper storm drains are critical. Solid waste collection ensures that these drains are not clogged when they are most needed. Properly installed water and sanitation systems are more likely to resist disastrous storms and flooding, and to ensure the health of communities as they struggle to recover from extreme events.

- On a less basic level, adaptation and mitigation measures applied at a local level will also require city management to be equipped with knowledge about alternative technologies for improving the management of natural resources, including the protection of water sources, the reduction of water leakages and of pollution. Mechanisms to achieve this kind of progress should include the sharing of information between local governments on experiences with new technologies. Procurement policies and funding should be geared towards promoting the use of alternative energy sources (solar, thermal and biogas) to reduce energy consumption in basic services. These should also include reductions in the use of fossil fuels for everyday urban use and of greenhouse gas emissions (in transport, landfills, public building, etc.).

### **8. Local government associations**

*Provide leadership in the delivery of services.*

- Local government associations have an important role to play in improving local leaders' awareness of the need for policies that respect basic rights and

universal access to basic services. They should also promote exchange between municipalities on best management practices, including options such as PPPs, and different management and delivery models.

### **9. Data gathering on basic service access and provision**

*Need for consistent, reliable and valid information*

Local governments need to collect data regularly on service delivery and backlogs, ensuring accountability and transparency. They can also encourage and draw on efforts by the urban poor to collect their own settlement data to help in the process of planning for services, as has happened with many federations of the urban poor.

### **10. Sector specific strategies**

Water and sanitation

- Carry out long-term supply/demand modelling of water and sanitation to ensure adequate planning for the effects of climate change and other risks.
- Improve regulatory measures such as the setting of appropriate water tariffs, proper metering, efficient collection methods, and methods of reducing the amount of non-revenue water.
- Use technological innovations to ensure efficiency and effectiveness of water supplies (e.g. more efficient meters, leak detection mechanisms and the use of GIS to indicate location of water problems).
- Document Public-Private-Partnerships (PPPs), Public-Public partnerships and Public-Community partnerships to ensure that information on good practices is made available.

## Transport

- An integrated and effective regulatory environment for public transport is necessary. This must ensure that integrated transport plans are developed for each city as opposed to transport functions simply focusing on setting transport routes, regulating traffic and ensuring safety.
- Integration must be sought at various levels: *between* neighbouring municipalities (where relevant) as well as between national, regional and local government.
- The effective enforcement of transport plans is critical to the successful implementation of integrated plans.
- Promote agreements between local governments and operators to improve public transportation in urban areas.
- Support the organization of informal or micro-operators to improve the quality and security of public transport.
- Develop tariff policies that ensure adequate access for the poor.

- Clear policy must be developed, including the necessary regulations to ensure roles for the private sector (including informal operators) and NGO sectors, to introduce cost recovery mechanisms, to improve efficient organization of waste collection and processing of waste, and to introduce environmentally friendly and more energy efficient technologies.<sup>88</sup>

## Energy

- Municipalities must, at the very least, be involved in energy planning.
- Because energy is a potential source of income and is a lead sector for economic generation, municipalities should be actively be involved in electricity supply, tariff setting, and have the capacity to follow up with threats of energy cut-offs. This can also ensure increased payment levels for other municipal services.

## Solid waste management

- To resolve the problems in this sector, it is critical to reduce the fragmentation of responsibilities, lack of capacity and poorly conceptualized private sector involvement.

<sup>88</sup> Van Dijk and Oduro-Kwarteng (2007).









# III. ASIA PACIFIC



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Photo: See-ming Lee

## 3.1 Introduction

The 63 countries and territories of the Asia-Pacific region are home to 4.2 billion people, more than half the world's population. The region includes countries as affluent as Australia and Japan, rapidly developing middle income countries like Malaysia and Thailand, and also several low income countries like Bangladesh and Nepal.

These low and middle income countries still pose a tremendous challenge to the ability of governments to deliver local basic services. Forty five percent of the region's people live in urban areas and they are increasing at a rate of 1.8% a year,<sup>1</sup> greatly accelerating the demand for services with their rising expectations. Almost a third of these city-dwellers live in slums, an indication of the depth of the inequalities in the context of rapid economic growth. In lower income countries it is not uncommon for more than half of urban residents to occupy slums and informal settlements, most of them still unreached by basic services. As more people flock to cities, the demand for local basic services will accelerate, and local governments will be hard pressed to meet the costs of providing these services. The Asian Development Bank and the International



**As more people flock to cities, the demand for local basic services will accelerate, and local governments will be hard pressed to meet the costs of providing these services.**

<sup>1</sup> United Nations (2012).

Monetary Fund estimate that meeting the physical and social infrastructure needs in the region will require close to USD 10 trillion over the next ten years.<sup>2</sup>

In addition to the problems posed to basic service provision by increased demand in the face of limited resources, authorities in the region also have to cope with the increased number and frequency of disasters and destructive weather-related events and trends, including rising sea levels and more frequent flooding. In many cases, especially in urban areas, these problems are exacerbated by the inadequacy of the infrastructure underpinning basic local services.<sup>3</sup>

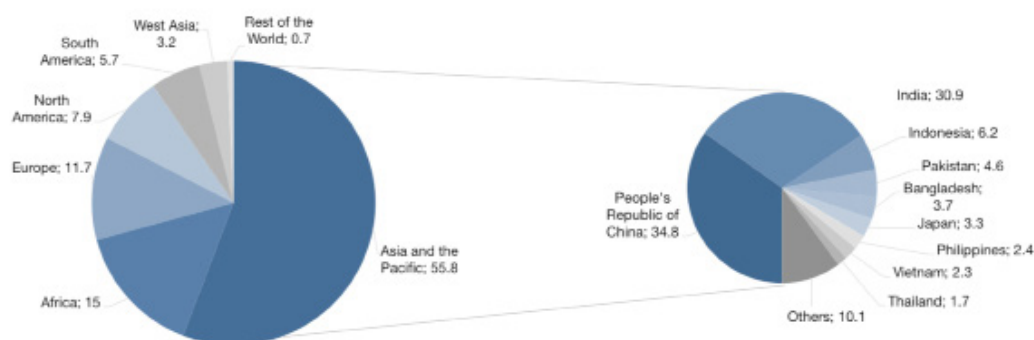
At present, most large cities in the Asia Pacific, especially national capitals and aspiring “world cities”, receive a disproportionate share of infrastructure investments. However, despite these considerable investments, many large cities continue to suffer from air and water pollution, traffic gridlock, congested slums, intermittent water supply, power brown-outs, and uncollected solid waste. In many countries, service provision in towns and small and medium-sized cities is even worse. It is widely acknowledged that these small and medium-sized cities serve as economic growth centres, administrative headquarters, and generators of development that benefit rural areas. However, the

sorry state of their infrastructure and basic services hampers their development potential in the region.<sup>4</sup>

This chapter reviews provision for water and sanitation, transport, energy and solid waste management, in 17 Asia Pacific countries whose combined population makes up 93.9% of the regional total (Figure 3.1). (The selected countries and their characteristics are presented in Annex 3.1 of Gold III). Unlike the other regional chapters, this chapter also includes a focus on slum improvement and disaster preparedness, reflecting the scale of these concerns in the region. The chapter describes the governmental units responsible for service delivery (who does what?), the financing of services (who pays for what?), access (who gets what?) and the future challenges faced by local governments in the region. It also includes some recommendations on how local governments can deliver services more effectively and efficiently and a number of case studies of innovative service delivery.

The 17 countries reviewed reflect the extreme diversity of the region and with it the challenge of making broadly applicable generalizations. Given this difficulty, the major emphasis in the chapter is on local governments in countries that face greater problems with basic service delivery.

**Figure 3.1 Distribution of world population by regions (2011)**



Source: ADB (2011)\*.

<sup>2</sup> ADB (2011). See also, World Bank (2005).

<sup>3</sup> Satterthwaite, et al. (2008).

<sup>4</sup> UN-HABITAT (2010).

\*Asian Development Bank, Key Indicators for Asia and the Pacific, 2011, 42nd Edition, (Mandaluyong City: ADB, 2011).





Photo: Rudy

## 3.2 Institutional and legal frameworks

Local basic services in the Asia Pacific region are provided by more than a million local governments, which typically share responsibility for providing water, sanitation, transport, energy, solid waste management, slum improvement and disaster preparedness with central governments. But the administrative structures and the allocation of authority and power can vary widely. Annex 3.2 of Gold III reviews the levels of sub-national government in the selected countries.



**The decentralization process has contributed in important ways to greater local democratization.**

### Recent developments in decentralization and democratization in the region

Since the 1980s, there have been significant developments in the governance systems in the Asia Pacific countries, both those with unitary and federal governments. Many countries have adopted decentralization programmes in the past two decades. Previous GOLD reports on 12 country case studies in the region concluded that the decentralization process has contributed in important ways to greater local democratization. Local elections were introduced in a majority of countries, obliging local decision makers to become





**Many countries in the region have elected local authorities, but their powers are very limited.**

more responsive and accountable to local citizens. In India, Indonesia and the Philippines, decentralization have increased citizen participation and the number of elected positions at local levels. In Australia, Japan, Korea and New Zealand, decentralized approaches have improved the management of basic services and brought the local decision making process closer to citizens.

Relationships between central governments and local governments can take different forms: deconcentration, delegation or devolution. In deconcentrated systems the central government assigns tasks to hierarchically organized units that act as agents of the centre to manage specific activities. This allows for some degree of adaptation of decisions to local contexts but does not provide the same level of accountability to citizens as devolution. Local administrators are appointed, not elected, and remain accountable to higher levels of government. In delegated systems, authority and power is exercised by elected rather than appointed officials. However, their autonomy is limited and they remain accountable to the central government. Devolution is considered the most genuine form of decentralization, though decentralized systems can combine different degrees of delegation and devolution.

However, it is not always easy to place Asia Pacific countries into discrete categories. Many countries in the region have elected local authorities, but their powers are very limited. This is particularly the case in Sri Lanka and Thailand where central governments and provincial authorities exert very strong control over local decisions and resources. In Pakistan, where legislation allows for the election of local officials, local elections are still pending and local government responsibilities have been transferred to provincial governments. Thus, these three countries could be considered to have something closer to “deconcentrated systems”. In Malaysia, local authorities in

major cities can levy taxes and they have recognized responsibilities. However, most resources are controlled by federal states and a trend to recentralization of key basic services has been observed in recent years. Malaysia is closer to a ‘delegated’ system like those in Bangladesh, Cambodia and Nepal, where elected local governments have also limited powers and resources. In the case of genuine devolution (as in Australia, Indonesia, Japan, Korea, New Zealand and the Philippines), the central government transfers wide-ranging powers to local governments for the management of local affairs. In India decentralization has been underway since the 90’s, but the essential powers and resources are still concentrated in the federal states; in other words, decentralization is still vested at the state level.

In China, though local elections take place at the lowest level of public administration and local authorities have a large degree of autonomy, nevertheless national authorities can dismiss or change the executive officers of local governments. In Vietnam, although the central government has not passed any decentralization laws, People’s Councils at the provincial, district and commune levels have been granted specific authority to make key decisions by the Law on Organization of People’s Committees and the State Budget Law.<sup>5</sup>

### Who does what?

In Asia Pacific countries, different levels of governments or administrative structures play the role of “organizing authorities” to deliver public services, ensuring in parallel other complementary processes such as planning, organizing, staffing, co-ordination and performance monitoring and evaluation. In the region, these “organizing authorities” can include cities and municipalities, metropolitan or regional authorities, states and provinces and central government agencies.

<sup>5</sup> Vu Thi Vinh (2012).

### ***City and municipal authorities***

Culture and the legacy of colonization strongly influence how local governments function in Asia Pacific. Some former British colonies, like Australia, India, and New Zealand, have strong traditions of local autonomy and city and municipal authorities have the authority and power to organize and carry out basic services. Local governments in the Philippines also aspire for local autonomy derived from American municipal traditions, although their ability to provide basic services is somewhat limited by centralist tendencies traceable to more than three centuries of Spanish colonial regimes. In China and Vietnam, cities and municipalities operate as agents of the central government (major cities like Beijing, Tianjin, Shanghai, Guangzhou and Chongqing as well as Hanoi and Ho Chi Minh City are classified as cities under the control of the central government) and this status provides them with financial, technical and managerial resources to effectively act as organizing authorities.

### ***Metropolitan and regional authorities***

Local government fragmentation is a major problem in many metropolitan areas in Asia Pacific. Metropolitan and/or regional authorities have been set up to achieve better coordination of basic service delivery. A key approach has been the formulation and adoption of comprehensive economic and social development plans, often collaboratively carried out by local governments in a region (as in China's Pearl River Delta and the Yangtze River Delta region). In Japan, the government has used municipal mergers to rationalize the management of public utilities. Large urban agglomerations in China, such as Chongqing, Shanghai, Guangzhou and Shenzhen, have expanded their boundaries and placed basic urban services under the authority of unified metropolitan governments. In India, Indonesia and the

Philippines, the planning and governance of capital cities have been placed under the authority of metropolitan authorities with specific jurisdiction over area-wide functions.

The main advantages of unified metropolitan bodies as organizing authorities are their strong financial capabilities, efficient management arrangements, and clear specification of their authority and power. One disadvantage, usually mentioned by advocates of local autonomy, is that such unified governments can become so rigidly bureaucratic that top officials become deaf to citizens' demands. Some municipal officials also object to unified metropolitan authorities because they do not like the insertion of another level of bureaucracy between them and the central government.<sup>6</sup>

### ***State or provincial authorities***

In unitary government systems in the Asia Pacific, state or provincial governments often serve as extensions of the authority of central governments. In Sri Lanka, under the 13<sup>th</sup> Amendment to the Constitution, most central government functions were devolved to the provincial level, which oversees local authorities. The power to dissolve a city or municipal council was vested at the provincial level. However, at present, the central government continues to wield the authority over power generation using hydro-electric systems and the distribution of power through the national grid.<sup>7</sup>

In federal systems, these sub-national units exercise considerable powers. In India, for instance, states play a significant role in providing basic urban services. The national capital region in Delhi, for example, has been granted the status of a state and has authority to provide water and other services in "unauthorized colonies" (slum areas), despite the fact that the land in many of these colonies is under the authority of the Delhi Development Authority, a central government agency.



**The main advantages of unified metropolitan bodies as organizing authorities are their strong financial capabilities, efficient management arrangements and clear specification of their authority and power.**

<sup>6</sup> Laquian (2008).

<sup>7</sup> Gamage (2012).



**In some Asia Pacific countries, basic services formerly provided by private enterprises have been taken over by the central government because of their poor performance.**

### **Central government authorities**

In general, central governments in the Asia Pacific are involved in setting policies, programmes and standards regarding basic services. They also establish and run monitoring and evaluation systems to make sure that policies and standards are followed by local governments. In some countries, however, central government agencies directly manage basic services. In Nepal, for instance, the Department of Water Supply and Sewerage, under the Ministry of Physical Planning and Works, manages the country's water and sewerage system, and the central government has also been solely responsible for the delivery of electricity, although it has recently opened the door to private enterprise participation while maintaining its central regulatory role.<sup>8</sup>

In Australia, the supply of electricity is mainly carried out within the National Electricity Market (NEM), a large electricity generation and network system which provides about 89% of the electricity consumed in Australia through a mix of private sector entities and state-owned corporations.<sup>9</sup> Operators are subject to the authority of the Australian Energy Regulator (AER), which regulates the market, determines prices and ensures compliance with national laws and rules by operators; the Australian Energy Market Commission (AEMC) makes the rules and regulations on energy markets and sets the reliability and safety standard. Policy development is the responsibility of the Standing Council for Energy and Resources (SCER).

In some Asia Pacific countries, basic services formerly provided by private enterprises have been taken over by the central government because of their poor performance. In Malaysia, for example, three private concessions working with city governments in solid waste collection and disposal were taken over by the federal government in 2011. The new federal

programme stresses a reduction in the generation of waste through re-use, recovery, recycling and composting, and creates energy from waste incineration and obtaining methane from landfills.<sup>10</sup>

### **Where does responsibility lie for basic services?**

In Asia Pacific, responsibilities for the delivery of local basic services are normally defined by law. For example, in India the 7<sup>th</sup> schedule in the Constitution spells out the responsibilities of local governments in the "State List," the central government's role in the "Union List," and joint responsibilities of central and local governments in the "Concurrent List".<sup>11</sup> In Bangladesh, article 59b of the Constitution (1972) specifies the powers and responsibilities of local governments. In Japan, the 1947 Local Autonomy Law, revised in 2011, designates the functions of local governments at the prefecture, city and municipal levels.<sup>12</sup>

The roles played by government with regard to basic services usually include:

- policy setting, including the setting of objectives and targets;
- planning and strategy;
- resource allocation, including financing (especially budgeting), staffing, and allocation of time and materials;
- implementation and operation of services;
- regulation and control of processes and procedures; and
- monitoring and evaluation of activities to ensure conformity with qualitative and quantitative standards.

Table 3.1 shows the governance units mainly responsible for these activities in each service sector, and under each different form of governance. (For details by country, see Annex 3.3 of Gold III).

<sup>8</sup> Lamichhane (2012).

<sup>9</sup> Moegen (2012).

<sup>10</sup> Manikam et al (2012).

<sup>11</sup> Government of India, *Constitution of India*, 74th Amendment, 12th Schedule, Article 243 W, 1992.

<sup>12</sup> Council of Local Authorities for International Relations (CLAIR), *Local Government in Japan*, (Tokyo: CLAIR, 2012) accessed <http://www.clair.or.jp/j/forum/series/pdf/jo5-e.pdf>, October 31, 2012.

**Table 3.1 Roles and responsibilities for providing local basic services in Asia Pacific**

**CG**- Central Government

**S/P** –State or Province

**LGU** – Local Government Unit (city or municipality)

**NGO** – Non-governmental organization

**M/R** – Metropolitan or regional authority

**SPA** – Special purpose authority

**PS** – Private sector

**CBO** – Community based organization

| Local Basic Services      | Deconcentrated System   | Delegated System   | Devolved System   |
|---------------------------|---|--|---|
| <b>Water and sewerage</b> | CG sets policies and standards in unitary systems; S/P does this in federal systems; CG and S/P allocate resources and carry out monitoring and evaluation; M/R responsible in large cities, using SPA to manage services   | CG sets policies and standards and monitoring and evaluation systems; Some M/R units responsible for region wide water systems; Financing usually jointly done with government and PS sectors; LGUs provide water services in smaller cities often with support of CG and S/P agencies | CG sets policies and standards; uses monitoring and evaluation; LGUs often finance and manage local water and sanitation systems; Some M/R authorities used for big cities; SPAs often used for services delivery; PS starting to be active in financing and managing PPP schemes |
| <b>Sanitation</b>         | CG sets policies and standards; monitors and evaluates progress; LGUs manage sanitation through administrative units or contract it out to PS   | CG sets policies and standards; monitors and evaluates; LGUs finance and adopt rules and regulations for services provided by private and NGO sectors  | CG sets policies and standards; monitors and evaluates; LGUs manage sanitation services or out-source services to private and NGO sectors   |
| <b>Transportation</b>     | CG sets policies and standards; formulate strategic plans; monitors and evaluates; CG and P/S may finance transit systems, sometimes using PPP; Large LGUs may finance and manage transport systems but smaller ones manage traffic routes, build bus terminals for interurban modes, ensure safety | CG sets policies and standards; monitors and evaluates; LGUs manage some transport services like public buses; PS also provides bus and informal transport modes   | CG sets policies and standards; monitors and evaluates; Some LGUs run transport systems, set rules and regulations for PS transport providers, including informal sector transport operators  |
| <b>Energy</b>             | CG sets policies and standards; some provide financing for electricity; searches for alternative energy sources, supports research and development  | CG sets policies; LGUs regulate for safety; PS provides service  | CG sets policies; LGUs regulate for safety; PS provides service   |

|                               |   |  |   |
|-------------------------------|---|--|---|
| <b>Solid Waste Management</b> | CG sets policies; monitors and evaluates; LGUs provide most SWM services; disposal often collaboratively carried out by groups of LGUs  | CG sets policies; LGUs regulate disposal (landfills); Collection may be done by LGUs or sub-contracted to PS   | CG sets policies; LGUs usually finance, operate and regulate SWM operations using city departments or PS operators under contracts; Groups of LGUs may own and operate landfills; NGOs help with collection, recycling, composting                                |
| <b>Slum Improvement</b>       | CG sets goals; monitors and evaluates; housing ministries provide public housing; LGUs control and regulate with building codes and regulations on urban design, safety and environmental standards | CG sets policies and provide funds; LGUs rarely provide funds; Civil society often actively support urban poor groups  | CG sets policies; LGUs prepare plans and zoning regulations; PS and CBO provide services  |
| <b>Disaster Preparedness</b>  | CG sets goals; monitors and evaluates; Uses military and police resources in case of actual disasters; LGUs provide guidelines and training of residents on what to do in case of disasters         | CG sets policies; Some LGUs prepare disaster preparedness programmes; set up shelters and aggregation points; NGOs and CBOs prepare own plans and assist communities and residents | CG sets policies; prepares and adopts plans and strategies; Some LGUs set up plans to assist residents who are expected to look after themselves for 72 hours; NGOs and CBOs assist residents, especially urban poor living in dangerous and disaster prone areas |

**Deconcentrated Systems** – China, Pakistan, Sri Lanka, Thailand, Vietnam

**Delegated Systems** – Bangladesh, Cambodia, Fiji, Malaysia, Nepal

**Devolved Systems** – Australia, India, Indonesia, Japan, Korea, New Zealand, Philippines

## Water

Provision of water and sewerage usually involves collaborative efforts between various government agencies. Typically, a central government agency, such as the ministry of the environment, is charged with the management and protection of water resources, the ministry of health ensures water quality, and the ministry of public works or urban development undertakes construction and regulates performance standards. Provinces and cities in federal systems manage water services,

usually using special purpose authorities granted autonomous powers.<sup>13</sup> In Japan, for instance, local governments at prefectural and municipal levels are responsible for water supply and sewerage, and provide services via public corporations or utilities that are financially independent. In South Korea, water in the Seoul metropolitan area is provided by the Office of Waterworks, a public corporation that delivers 4.6 million tons of “healthy and tasty water” per day to 10.4 million people and gets 79% of its revenues from tariffs.<sup>14</sup>



## Sanitation

In all Asia Pacific countries, health standards on sanitation are set by central government agencies, usually by health ministries. In big cities with water and sewerage networks, sanitation is often managed by special purpose authorities or by regular departments. In smaller cities where many people use pour/flush latrines, local governments usually rely on private companies to empty septic tanks and dispose of their contents. Institutional arrangements in Bangladesh exemplify those used in South Asia. In 2003, the government initiated the “Community-Led Total Sanitation (CLTS)” campaign and set targets to achieve Total Sanitation by 2010. Local governments played a vital role in efforts to achieve the targets. A National Sanitation Task Force was set up and Local Sanitation Task Forces were formed in 4,484 Unions (villages), 507 *Upazilas* (sub-districts), and 64 *Zilas* (districts). The Task Force monitored sanitation activities at local level, where sanitation work was often supported by NGOs and community groups.<sup>15</sup>

## Transport systems

Roads in most Asia Pacific countries are classified as national or local, and managed by the corresponding levels of government. Transport systems range from privately owned vehicles (like bicycles, motorcycles, and cars) to light or heavy rail-based systems. Typically, central government agencies set transport policies and safety standards. A few metropolitan governments run bus networks (such as Guangzhou and Rawalpindi) and rail-based transit systems, but most bus companies are privately owned. In less affluent countries, the private sector is dominant in transport, and cities and municipalities play limited roles, exercising authority over transport routes, main-

taining local roads, putting up bus depots and passenger waiting sheds, and regulating and controlling traffic.<sup>16</sup> The private car is gaining popularity in many Asia Pacific countries and central and local governments are increasingly providing and maintaining the necessary road systems for their use. Some local governments also partner with the private sector in financing and managing public transport.<sup>17</sup>

## Energy

Electricity is the dominant source of energy for most urban local governments in Asia Pacific. Policies and programmes for generation and distribution are set by central governments (and state/provincial governments in federal systems). Energy provision is often the responsibility of central government agencies or government-owned or controlled corporations. Increasingly, electricity is provided by private companies linked to national grids. Cities and municipalities look after safety, and regulate and control activities such as digging ditches and laying out power lines.<sup>18</sup>

## Solid waste management

In most Asia Pacific countries, policies on solid waste management are promulgated by central governments (or by state and provincial governments in federal systems). The collection of solid waste is usually carried out at the city or municipal government level, either by sanitation departments or private companies. There are some metropolitan governments where disposal of solid waste is managed collaboratively with adjacent cities and municipalities, at times in partnership with private companies. Local government provision is often supplemented by community-based efforts that involve solid waste collection, sorting, recovery, recycling and composting.<sup>19</sup>



**The private car is gaining popularity in many Asia Pacific countries and central and local governments are increasingly providing and maintaining the necessary road systems.**

<sup>13</sup> Special purpose authorities (SPAs) are public corporate bodies that manage specific services such as water and sewerage, solid waste disposal. They are described in detail in section 3.4.

<sup>14</sup> Seoul Metropolitan Government, *Mission of Seoul Waterworks*, Presentation at the UCLG-ASPAC Workshop on the GOLD III chapter, held in Gwangju, Korea, May 16, 2013.

<sup>15</sup> Chowdhury (2012).

<sup>16</sup> von Einsiedel (2012).

<sup>17</sup> Kikuchi (2012).

<sup>18</sup> Torio (2012).



**Local government provision is often supplemented by community-based efforts.**

### **Slum improvement**

Most Asia Pacific countries have adopted policies to improve conditions in slums. Many cities and municipalities have their own programmes providing low cost houses and basic services although these are often inadequate for meeting new demand and replacing deteriorating housing stock.

In many Asia Pacific countries, local government efforts are hampered by factors such as lack of public funds, inappropriate or irrelevant planning and housing standards, lack of available land, legal and institutional constraints related to private property, and corruption. Often, slum improvement is carried out by slum dwellers themselves with the help of local or international agencies. In fact, it is estimated that in many towns and cities, more houses are constructed by slum dwellers than by government agencies.<sup>20</sup>

### **Disaster preparedness**

With the increasing severity of disasters in many Asia Pacific countries, most central governments have set up disaster preparedness programmes. Local governments supplement these efforts with a special focus on groups such as school children, public and private employees, and people living in dangerous areas like river banks, steep slopes, and frequently flooded areas. Often, civil society and community-based groups participate actively in disaster preparedness programmes.

In Cambodia, in 2006, after a number of disastrous floods the government issued a royal decree establishing the Commune Committees for Disaster Management (CCDMs) in local districts. Local responsibility for disaster management was strengthened in May 2008, when the Law on Elections in Capital City, Provinces,

Municipalities and Districts was passed, making local positions elected (local elections were held by 2009). CCDMs were given the responsibility for coordinating and implementing disaster management programmes at the local level. They report to higher levels of government (ultimately to the Ministry of the Interior) on disaster risks, mobilize local resources, and carry out educational and training programmes to prepare people for emergencies.<sup>21</sup>

### **City mayors' views on local responsibility for services**

For an idea of what specific local government units in the Asia Pacific are responsible for in the day-to-day management and delivery of basic services, the Jakarta UCLG-ASPAC office, with the support of local government associations and the regional research team, conducted a survey of 98 city and municipal mayors in 15 countries from February to June 2012.<sup>22</sup> (Annex 3.4 of Gold III lists the local governments that were represented in this survey.) While the survey is not based on a statistical sample, it provides valuable insight into how local officials view their responsibilities.

Figure 3.2 shows the responses of mayors when asked which government unit is responsible for delivering specific services in their jurisdictions. The table indicates that while responsibility is usually shared between units, for most basic services responsibility lay with cities and municipalities in the majority of cases—especially for solid waste management, water and sanitation. Only in the case of electricity provision did a small minority of mayors see local government as responsible.

Mayors were also asked which entities actually provided services in their localities. In response to this open-ended question, other entities were also mentioned,

<sup>19</sup> Sridhar (2012). See also ADB (2004).

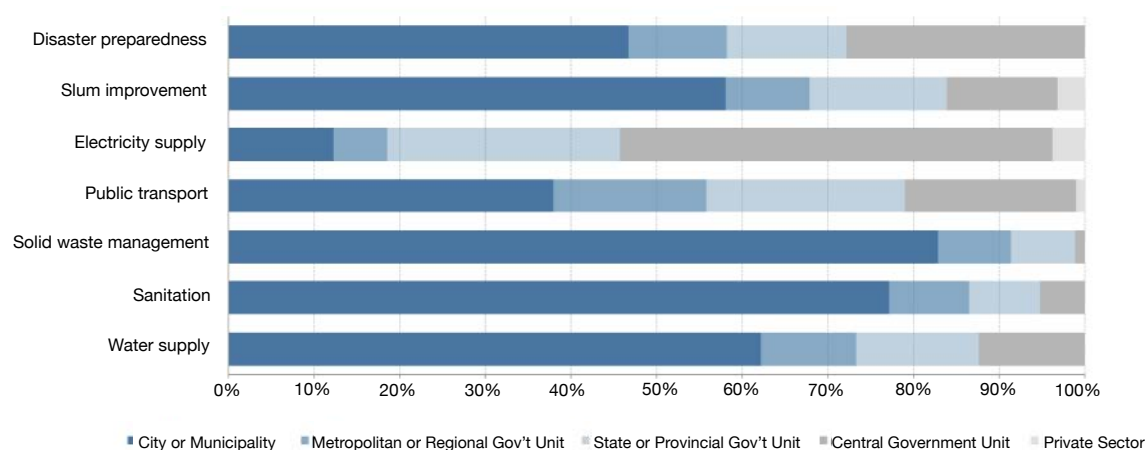
<sup>20</sup> ACHR. *Urban Poor Asia, ACHR Activities*, Asian Coalition for Housing Rights, accessed at <http://www.achr.net/Activities.htm>, April 30, 2013.

<sup>21</sup> Kimunn (2012).

<sup>22</sup> ASPAC (2012).

including local public companies, central government companies, special purpose authorities, public-private partnership (PPP) enterprises; private sector companies, community-based volunteer groups, NGOs, and other civil society groups.

**Figure 3.2 Responsibility for delivery of basic services (mayors' survey)**



Source: UCLG Mayors' Survey (2012).



### 3.3

## Access to services: who gets what?

Despite significant accomplishments in the delivery of local basic services, many cities and towns in the Asia Pacific continue to struggle to meet people's basic service needs.

### *Water services*

The main factor influencing access to water services in Asia Pacific is the level of economic development, as measured by per capita GDP. Table 3.2 shows estimates of the coverage of water services in selected countries. A full 100% of households in high income countries like Australia, Japan, New Zealand and Korea have water piped into their premises, but the situation in other countries varies considerably.<sup>23</sup> The situations in China and India are in especially marked contrast, with 68% of households in China having water piped into their premises compared to 23% in India, a reflection of a per capita GDP in China that is almost twice as high. The correlation is not consistent however. Sri Lanka's access to piped water is just a little higher than India's, yet its per capita GDP is closer to China.

**Table 3.2 Drinking water coverage in Asia Pacific countries (2010) (%)**

| Country     | Piped onto Premises | Other Improved Source | Other Unimproved Source | Surface Water Source |
|-------------|---------------------|-----------------------|-------------------------|----------------------|
| Australia   | 100                 | NA                    | NA                      | NA                   |
| Japan       | 100                 | NA                    | NA                      | NA                   |
| New Zealand | 100                 | NA                    | NA                      | NA                   |
| Korea       | 93                  | 5                     | 2                       | NA                   |
| Fiji        | 82                  | 16                    | 1                       | 1                    |
| Malaysia    | 72                  | 16                    | 12                      | NA                   |
| China       | 68                  | 23                    | 8                       | 1                    |
| Thailand    | 48                  | 48                    | 4                       | NA                   |
| Philippines | 43                  | 49                    | 7                       | 1                    |
| Pakistan    | 36                  | 56                    | 5                       | 3                    |
| Sri Lanka   | 29                  | 62                    | 7                       | 2                    |
| Vietnam     | 23                  | 72                    | 2                       | 3                    |
| India       | 23                  | 69                    | 7                       | 1                    |
| Indonesia   | 20                  | 62                    | 16                      | 2                    |
| Nepal       | 18                  | 71                    | 6                       | 5                    |
| Cambodia    | 17                  | 47                    | 19                      | 17                   |
| Bangladesh  | 6                   | 75                    | 18                      | 1                    |

Source: WHO-UNICEF (2012). NA – Not Applicable



**Many cities and towns in the Asia Pacific continue to struggle to meet people's basic service needs.**

### Sanitation

The measure commonly used for comparing access to sanitation situation is the proportion of the population with access to “improved” facilities for the disposal of excreta, urine and wastewater. These include pour-flush latrines connected to a sewer or septic tank system, simple pit latrines or ventilated improved pit latrines that are not publicly shared. Public toilets and bucket systems where human waste is manually removed are not considered adequate. Open defecation is the most serious indicator of a lack of adequate sanitation.<sup>24</sup>

The 2012 WHO-UNICEF Joint Monitoring Programme (JMP) report indicated that Japan and Korea had met the objective of 100% access to adequate sanitation. Seven countries were ranked “early achievers” including Malaysia and Thailand at 96%, Sri Lanka at 92%, and Vietnam at 75%. The Philippines, where 77% of the population has access to safe sanitation facilities, was ranked “on track”. The report ranked seven countries as “slow”: China, 55%; Bangladesh, 52%; Indonesia, 51%; Pakistan, 45%; India and Nepal, 31%; and Cambodia, 28%. Recent country reports, however,

<sup>23</sup> Flor (2012).

<sup>24</sup> Casanova (2012).





**The standards used to define adequacy can also be misleading in many urban settlements.**

indicate that the accomplishments cited in the JMP may be overly optimistic, often greatly exceeding rates reported by Demographic and Health Surveys (DHS). While Bangladesh was recorded by JMP as achieving 90% coverage in basic sanitation and 56.5% in improved sanitation in 2010, the 2011 Bangladesh DHS found that only 39.6% of urban households had “improved and not shared sanitation facilities.” In the capital city of Dhaka, there was just one sewage treatment plant, which only covered a small part of the city.<sup>25</sup>

The standards used to define adequacy can also be misleading in many urban settlements, where density often affects the suitability of theoretically adequate solutions. Provision in many urban slums remains dire. In India for instance, almost 20% of urban residents still rely on open defecation, and less than half are connected to drains; in Karachi, Pakistan, water is supplied for an average of four hours a day.<sup>26</sup>

Performance on wastewater discharge in the Asia Pacific is quite dismal. In India, 75% of all surface water bodies in the country have been contaminated by discharge of untreated wastewater. The 2010 City Sanitation Study reported that none of the 423 cities studied were “healthy” or “clean”. The Municipal Corporations of Chandigarh, Mysore and Surat, and the New Delhi Municipal Council were the only urban local bodies that fared well. Close to 190 cities in the study were rated to be in a “state of emergency” with respect to public health and environment.<sup>27</sup> The assessment of sewage generation and treatment capacity from the Central Pollution Control Board (CPCB) in 2006 estimated that India had the capacity to treat only 21% of the sewage it was generating. By 2009, the country reached the capacity to treat 30% of its sewage but the overall picture is still dire.<sup>28</sup>

In Indonesia, households are responsible for on-site sanitation improvements to conform to public health regulations, but local governments are lax in enforcement. Treatment and disposal of human waste is considered a public responsibility, but local governments lack the resources to do this. About 13% of sewage in urban areas is estimated to go into rivers and lakes, and 6% ends up in rice fields.<sup>29</sup>

### **Energy**

Asia Pacific countries accounted for 40% of the world’s electricity production in 2010 and China alone produced 18%. Countries in the region have achieved 89% electrification, with Australia, Japan, New Zealand and Korea at 100%, China and Thailand at 99%, Malaysia at 97%, Vietnam at 84% and the Philippines at 80%. But both electrification and levels of electricity consumption are directly related to the level of economic development, as indicated in Table 3.3. The per capita electricity consumption in Nepal is only 91 kWh per day, while in Australia it is 11,113 kWh per day.<sup>30</sup>

There are concerted efforts in the Asia Pacific to develop alternative energy sources from solar, wind, geothermal, waste gasification and bio-fuels but these sources are still significantly more expensive than fossil fuels. Of particular interest is the rapid progress in the development of solar panels in China, which already produces more than two-thirds of the world’s solar panels.

### **Transportation**

In higher income countries in Asia Pacific, the private car is still the main transport mode, accounting for 80% of trips in Australia, 70% in New Zealand, and 48% in Korea. Many other countries also show a strong preference for private vehicles, with 83% of trips in Indonesia and Malaysia,

<sup>25</sup> Chowdhury (2012).

<sup>26</sup> Hussain (2012).

<sup>27</sup> Mathur (2012).

<sup>28</sup> Mathur (2012).

<sup>29</sup> Syabri (2012).

<sup>30</sup> Torio (2012) citing ADB (2011).

**Table 3.3 Per capita GDP, electrification rates & per capita electricity consumption per day in selected Asia Pacific countries**

| Country                          | Per Capita GDP | Electrification Rate, % | Per Capita Electricity Consumption, Kwh per day |
|----------------------------------|----------------|-------------------------|---|
| Australia                        | 23,262         | 100                     | 11,113  |
| Afghanistan                      | 280            | 7.0                     | 64  |
| Bangladesh                       | 419            | 32.0                    | 252   |
| Bhutan                           | 1,086          | 36.0                    | 977   |
| Brunei Darussalam                | 18,304         | 99.2                    | 8,662   |
| Cambodia                         | 445            | 20.1                    | 131   |
| China, People's Republic of      | 1,598          | 99.4                    | 2,631   |
| India                            | 634            | 55.5                    | 571   |
| Indonesia                        | 983            | 54.0                    | 590   |
| Japan                            | 39,824         | 100.0                   | 7,819   |
| Lao People's Democratic Republic | 439            | 45.0                    | 103   |
| Malaysia                         | 4,535          | 97.8                    | 3,614   |
| Mongolia                         | 626            | 64.1                    | 1,411   |
| Myanmar                          | 313            | 11.3                    | 104   |
| Nepal                            | 242            | 33.0                    | 91  |
| New Zealand                      | 15,199         | 100.0                   | 9,346   |
| Pakistan                         | 634            | 54.0                    | 449   |
| Philippines                      | 1,154          | 80.5                    | 593   |
| Singapore                        | 27,125         | 100.0                   | 7,949   |
| Sri Lanka                        | 1,070          | 75.0                    | 408   |
| Thailand                         | 2,601          | 99.0                    | 2,045   |
| Vietnam                          | 576            | 84.2                    | 918   |

Source: Torio (2012) citing ADB (2011).

80% in Cambodia and Vietnam and 73% in Bangkok made using private motorcycles. In China, about 50% of trips are made by bus or rail-based transit and 40% made by walking or cycling.<sup>31</sup> In general, mobility in large Asian cities is characterized by con-

gested roads, traffic jams, crowded public buses and trains, and long trip delays. Many people in otherwise unserved areas rely heavily on small private enterprises. The situation is especially difficult for many low income urban residents living in peripheral

<sup>31</sup> Von Einsiedel (2012).



**There are 505.5 million people living in slums in Asia Pacific, about 30.6% of the region's urban population.**

areas. A study on some low income settlements in Karachi found that most people spent more than two hours a day getting to work, and paid more than 10% of their incomes on bus fares.<sup>32</sup> Cities like Bangkok, Manila, Beijing, Jakarta and Shanghai also suffer from high levels of air pollution largely traceable to transport inadequacies.

### ***Solid waste***

The collection and disposal of solid waste continues to be a problem in most Asia Pacific countries, although services are excellent in Australia, Japan, Korea and New Zealand. On average, each person in the Asia Pacific generates only 1.05 kg of waste per day, compared to 2.75 to 4.0 kg per day by people in high income countries.<sup>33</sup> But the 2.7 million cubic metres of solid waste per day is projected to double by 2025, and only about 63% of local governments in the Asia Pacific have solid waste management programmes. Even cities that do have programmes seldom extend them to the informal settlements that can be home to more than half the population. The problem is particularly acute in some cities, like Metro Manila, which has almost run out of space for sanitary landfills.<sup>34</sup>

### ***Services in slums***

UN-HABITAT has adopted a functional definition of 'slums' based on durability of housing, sufficiency of space, access to improved water and sanitation, and secure tenure or protection against forced eviction. Slum conditions are considered "extreme" when three or more indicators are lacking, "severe" when at least two indicators are lacking and "moderate" when only one element is lacking. Using this definition, UN-HABITAT estimates that there are 505.5 million people living in slums in Asia Pacific, about 30.6% of the region's urban population. Of these, 35% are found in Southern Asia, 31% in South-eastern Asia, 28% in

Eastern Asia, 25% in Western Asia and 24% in Oceania and the Pacific.<sup>35</sup>

The international MDG target of improving the living conditions of at least 100 million slum dwellers by 2015 was met in 2010, when the lives of 227 million slum dwellers was estimated to have been significantly improved. But the percentage of the urban populations still living in slums in Asia remains high (and continues to grow in absolute numbers): 71% in Bangladesh, 59% in Nepal, 47% in Pakistan, 42% in the Philippines, 32% in India and 31% in China.<sup>36</sup>

Provision of basic public services in slum areas varies widely. In India, a distinction is made between "notified slums", officially recognized by local authorities, and "non-notified slums" with more uncertain legal standing. A National Sample Survey in 2005 found that:

- 78% of notified slums and 57% of non-notified slums had access roads or paths;
- 99% in notified slums and 93% in non-notified slums had electricity;
- 48% were subjected to water-logging during the monsoon season because of poor drainage;
- 68% in notified slums and 47% in non-notified slums had latrines with septic tanks;
- 10% in notified slums and 20% in non-notified slums had no latrines at all;
- 33% in notified slums and 19% in non-notified slums were connected to sewerage pipes;
- 84% in notified slums and 71% in non-notified slums had access to potable water.<sup>37</sup>

### ***Disaster preparedness***

Many cities in the Asia Pacific suffer from increasingly frequent disasters or extreme weather events that local governments

<sup>32</sup> Urban Resource Centre (2001).

<sup>33</sup> Sridhar (2012).

<sup>34</sup> ADB (2004).

<sup>35</sup> UN-HABITAT (2010).

<sup>36</sup> United Nations (2011); UN-HABITAT (2010).

<sup>37</sup> Mathur (2012).

are woefully unprepared to handle. Even in Japan, which is better prepared for disasters, the tsunami and Fukushima Daiichi nuclear disaster that followed the Tohoku earthquake in March 2012 resulted in widespread devastation. Millions of people and their property and enterprises are at risk from rising sea levels in coastal cities like Mumbai, Dhaka, Bangkok, and Shanghai. An OECD study found that about 38% of the world's largest port cities are in the Asia Pacific and that 27% of them are in deltaic settings precariously subject to flooding.<sup>38</sup> Many cities, especially in countries that have urbanized rapidly, have expanded onto land that may be at high risk—floodplains or unstable hills. Poor communities tend to be especially vulnerable, not only because they have more limited adaptive capacity but because they more often live in settlements in high risk areas without the basic service infrastructure that can provide some measure of protection from heavy rains or flooding.<sup>39</sup>

## Satisfaction with services

While a country's level of access to basic services is critical, the satisfaction level around these services also counts for a great deal. The survey of 98 municipal mayors in the region points to a very positive correlation between the degree of decentralization and the level of satisfaction with basic services. In the survey, the local governments were divided into three categories: (a) decentralized (Australia, India, Indonesia, Japan, Korea, New Zealand, and the Philippines); (b) somewhat decentralized (Bangladesh, Cambodia, Nepal, and Sri Lanka); and (c) centralized (China, Nepal, Pakistan, Thailand, and Vietnam).

The mayors were asked to rate peoples' level of satisfaction with the delivery of seven local basic services on a scale of 1 (highly unsatisfactory) to 5 (highly satisfactory). As seen in Table 3.4, satisfaction levels were almost uniformly higher in decentralized systems.



**The survey of 98 municipal mayors in the region points to a very positive correlation between the degree of decentralization and the level of satisfaction with basic services.**

<sup>38</sup> OECD (2007).

<sup>39</sup> Bicknell et al. (2009).

**Table 3.4 Degree of satisfaction in service delivery by decentralization level**

| Services                      | 1<br>Highly<br>Unsatisfactory | 2<br>Somewhat<br>Unsatisfactory | 3<br>Just<br>Okay | 4<br>Somewhat<br>Satisfactory | 5<br>Highly<br>Satisfactory |
|-------------------------------|-------------------------------|---------------------------------|-------------------|-------------------------------|-----------------------------|
| <b>Water &amp; Sewerage</b>   |                               |                                 |                   |                               |                             |
| Decentralized                 | 0                             | 0                               | 0                 | 40.0                          | 60.0                        |
| Somewhat decentralized        | 3.2                           | 6.5                             | 35.3              | 32.3                          | 22.6                        |
| Centralized                   | 8.8                           | 14.7                            | 35.3              | 23.5                          | 26.5                        |
| <b>Sanitation</b>             |                               |                                 |                   |                               |                             |
| Decentralized                 | 0                             | 4.5                             | 9.1               | 54.5                          | 31.8                        |
| Somewhat decentralized        | 0                             | 0                               | 16.1              | 58.1                          | 25.8                        |
| Centralized                   | 2.9                           | 11.8                            | 47.1              | 23.5                          | 14.7                        |
| <b>Solid Waste Management</b> |                               |                                 |                   |                               |                             |
| Decentralized                 | 0                             | 0                               | 23.8              | 37.1                          | 39.1                        |
| Somewhat decentralized        | 3.2                           | 3.2                             | 32.3              | 38.7                          | 22.6                        |
| Centralized                   | 9.1                           | 9.1                             | 54.5              | 18.2                          | 9.1                         |
| <b>Transportation</b>         |                               |                                 |                   |                               |                             |
| Decentralized                 | 9.1                           | 4.5                             | 54.5              | 22.7                          | 9.2                         |
| Somewhat decentralized        | 0                             | 3.3                             | 53.3              | 26.7                          | 16.7                        |
| Centralized                   | 16.7                          | 13.3                            | 40.0              | 23.3                          | 6.7                         |
| <b>Energy</b>                 |                               |                                 |                   |                               |                             |
| Decentralized                 | 10.5                          | 0                               | 21.1              | 47.4                          | 21.0                        |
| Somewhat decentralized        | 23.3                          | 3.3                             | 16.7              | 23.3                          | 33.3                        |
| Centralized                   | 17.6                          | 5.9                             | 32.7              | 23.5                          | 20.6                        |
| <b>Slum Services</b>          |                               |                                 |                   |                               |                             |
| Decentralized                 | 5.0                           | 15.0                            | 40.0              | 15.0                          | 25.0                        |
| Somewhat decentralized        | 19.4                          | 6.5                             | 22.6              | 32.1                          | 19.4                        |
| Centralized                   | 6.9                           | 27.6                            | 37.9              | 17.2                          | 10.3                        |
| <b>Disaster Preparedness</b>  |                               |                                 |                   |                               |                             |
| Decentralized                 | 0                             | 0                               | 59.1              | 22.7                          | 18.2                        |
| Somewhat decentralized        | 23.3                          | 0                               | 23.3              | 40.0                          | 13.3                        |
| Centralized                   | 23.5                          | 17.6                            | 21.5              | 25.6                          | 11.8                        |

UCLG mayors survey (2012). N=98





### 3.4

## Management and financing models: how are services provided?

Despite an extremely challenging situation with regard to basic local services in many of the Asian Pacific countries, many interesting and innovative initiatives have been undertaken in the region that deserve to be showcased, and which provide insights into ways forward. These apply both to management models and to approaches towards financing.

### Management models

Local basic services in Asia Pacific are provided through a variety of management models, including: special purpose authorities, collaborative service arrangements, public-private partnerships, public-NGO partnerships and private companies.

#### ***Special purpose authorities (SPAs)***

Local basic services in Asia Pacific have been traditionally managed by municipal bureaus or departments of cities or municipalities. Operations are subject to formal civil service rules and regulations on such areas as personnel appointments and promotion, salaries and benefits, security of tenure, budgeting procedure, etc. Some local governments



**Because of their relative financial independence, SPAs have the ability to raise investment funds.**

have found such units too bureaucratic and inflexible and in some cases vulnerable to political interference and corruption. They have, therefore, created special purpose authorities (SPAs) to manage specific public services like water and sewerage, electricity or solid waste disposal. The main characteristics of SPAs are:

- a high degree of autonomy in carrying out their tasks;
- focus on a specific service function;
- grant of considerable authority that exempts SPAs from civil service rules and regulations
- greater authority and flexibility in conducting financial affairs.

SPAs also tend to cover larger geographic territories and focus on projects requiring large investments and complex collaborative approaches that may include public and private partnerships.

Because of their relative financial independence, SPAs have the ability to raise investment funds (for example, in China, local governments are prohibited from borrowing to finance infrastructure projects but state owned enterprises (SOEs) set up by local governments are authorized to do this; in the Philippines, government owned or controlled corporations can charge tariffs and operate revolving funds unlike regular bureaus that cannot keep surplus funds at the end of a fiscal year). While SPAs enjoy autonomy (with independent boards that set policies and approve programmes), they remain public agencies, ultimately responsible to the government bodies that created them.

Examples of SPAs include Water Supply and Sewerage Authorities (WASAs) in Bangladesh, in the metropolitan areas of Dhaka, Chittagong and Khulna, to coordinate water-related activities; subsidiary public utility companies in Australia that provide electricity, and SOEs in China that are expected to be financially viable

and self-sustaining. Some SPAs are very large: in Shanghai, the Water Division of the Shanghai Urban Construction Investment Development Corporation was set up to manage water and sewerage services in the metropolitan area. This Water Division has five water companies covering different geographical zones, a unit for getting raw water from the Huangpu River, a sewage disposal company, three engineering companies in different areas, and two construction companies. Placing these units under the authority of the Water Division has made it possible to provide water and sewerage to more than 12 million people in the region. A similar regional authority in Tianjin streamlined its operations and teamed up with an international company (Vivendi) to set up a bulk water supply department under a build-operate-transfer (BOT) contract.<sup>40</sup>

In South Australia, the cities of Onkaparinga, Marion and Holdfast Bay set up an SPA in 1999 to operate a regional landfill, the Southern Region Waste Resource Authority (SRWRA) managed by a Board with two representatives from each member councils and an independent expert in waste management. The landfill facility is capable of processing over 160,000 tons of waste annually. Similar collaborative projects have been organized in Coffs Harbour and Newcastle.<sup>41</sup>

A SPA that has provided excellent service is the Phnom Penh Water Supply Authority (PPWSA) in Cambodia. In 1993, when it was set up, the system supplied 65,000 cubic metres of water per day. In 2011, it had risen to 330,000 cubic metres a day and service had expanded from 10% to 90% of the urban area. Water is available to residents 24 hours a day, up from 10 hours; piped connections have increased from 26,881 to 202,929 and non-revenue water has been reduced from 72% to 5.8%. Tariff collection rose from 48% to 99% in the same period. In recognition of

<sup>40</sup> Laquian (2012).

<sup>41</sup> Moege (2012).

its achievements, the PPSWA was awarded the Stockholm Industry Prize in 2010.<sup>42</sup> Key factors in the PPWSA's success are creative leadership and operational autonomy. A 1996 decree allowed it the freedom to plan, operate and manage its own budget. A seven member Board of Directors approves the investment programme and budget. Operations and organizational matters are the sole responsibility of the General Director, who also has authority to implement cost recovery tariffs. The PPWSA receives no government subsidy and its revenues are channelled back into the enterprise, giving it the fiscal autonomy to continue improving its services.<sup>43</sup>

SPAs are effective mechanisms for coordinating fragmented activities. They allow local, state/provincial and central governments to pool their resources to finance big ticket projects. Consolidating management under one structure improves an area's credit rating, allowing it to borrow investment funds from domestic and foreign sources. Experience in a number of countries also shows that SPAs are able to attract good managers and professional staff as they can offer higher salaries and benefits. They can also use advanced technologies and methods in delivering services as shown in the Guangzhou bus rapid transit (GBRT) case study (Box 3.1).



### Box 3.1 The Guangzhou Bus Rapid Transit (GBRT) system

The Guangzhou Bus Rapid Transit (GBRT) system was set up in 2010. Its 22.5 km line now has the highest number of passengers (800,000 per day) of all BRT stations (more than 25,000 passengers per hour going in one direction). The system has the following features: (a) 26 stations; (b) a total of 42 bus routes operating in the fixed bus corridor; (c) fares are collected using a smart card system; (d) tunnels from the BRT platform are connected to the Guangzhou metro lines at three stations; (e) bike lanes have been constructed along the trunk line; (f) about 5,500 bike parking spaces have been provided at BRT stations; and (g) about 5,000 rental bicycles are provided at each station.

The GBRT is noteworthy for operating both inside and outside BRT corridors, which greatly reduces the need for passenger transfers. Experts also point to good corridor selection and effective station design. Other Chinese BRT systems have a single operator but in Guangzhou there are seven operating companies.

Initially, the GBRT was plagued with operational problems. However, it became more efficient as the city procured new 18-metre BRT buses. Planners made operational adjustments with technical inputs from the Institute for Transportation and Development Policy (ITDP) and a public consultation. Minor route changes, combined with the phased introduction of express routes and larger buses, resulted in dramatic operational improvements, even as passenger demand continued to grow.

In 2011, the GBRT won the Institute for Transportation and Development Policy's Sustainable Transport Award. It was credited with revolutionizing perceptions of bus-based travel and praised for its high capacity, excellent station design and the integration of the system with other modes of transport such as walking, cycling and the wider rail-based metro system.



**SPAs are effective mechanisms for coordinating fragmented activities. They allow local, state/provincial and central governments to pool their resources to finance big ticket projects.**

<sup>42</sup> Ek Sonn Chan, "Phnom Penh Water Supply Authority (PPWSA): City Water Rebuilt from Ruins," Paper presented at Asian Development Bank workshop at the Expert Committee on Investment Requirements, Mandaluyong City, Philippines, April 28-29, 2009.

<sup>43</sup> Flor (2012).



**A popular method for managing local basic services is through collaborative agreements between levels of government.**

### ***Collaborative service arrangements***

A popular method for managing local basic services is through collaborative agreements between levels of government. Such arrangements range from voluntary joint efforts to formulate and adopt area-wide comprehensive development plans to rationalize service delivery, to the creation of amalgamated local governments such as the regional councils and territorial authorities in New Zealand.

A recent example is city cluster development (CCD), introduced in Sri Lanka and India by the Asian Development Bank, in which autonomous local governments located close together formulate and adopt regional plans linking basic infrastructure like roads, water and sewerage in integrated networks. Instead of running the basic services in fragmented silos, local governments operate them as inter-linked services within the cluster. They pool investment resources and set up coordinated management systems to run area-wide infrastructure. Recent ADB initiatives have shown that the potential for economic growth can be enhanced by this linked provision. These collaborative intergovernmental alliances and region-wide services network have been proven to attract investment. CCDs take advantage of economies of scale by clustering investment in productive nodes, reduce transaction costs, and attract skilled labour and managerial talent.<sup>44</sup>

Cooperative arrangements have resulted in the reorganization of local governance in New Zealand, where local officials realized that environmental problems do not recognize political boundaries. They set up 11 Regional Councils to deal with environmental resource management, with the authority to manage public transportation and bulk water supply networks. At the level of cities and districts, 67 Territorial Authorities provide services like roads, water reticulation, sewerage, drainage, housing, and refuse collection and disposal. Six Unitary Coun-

cils combine territorial functions and have authority to set up service programmes. In effect, regional and territorial authorities have been designated as decentralized environmental protection bodies that collaborate with the national Environmental Protection Agency (founded in 2009) to protect New Zealand's environment. The EPA sets national environmental standards and monitors environmental activities carried out by local governments, especially those that are considered of "national significance", such as water, sanitation, transport, energy and solid waste collection and disposal.<sup>45</sup>

### ***Public-private-partnership (PPP)***

A public-private-partnership (PPP) is a venture funded and operated through the combined resources of government and private companies. This usually involves a contract in which both parties share different risks -financial, technical and operational. In some PPP projects, investments are mainly from the private sector. Governments may also make in kind contributions (such as in the form of public land) or by providing capital subsidies, tax breaks or guaranteed annual revenues. In many cases, the cost of the service is borne exclusively by users while in others it is paid by public authorities. PPP ventures usually take the form of a company called a "special purpose vehicle" (SPV), which develops, builds, maintains and operates the assets of the enterprise.

Many Asia Pacific countries have used PPPs to provide local basic services. In Thailand, the Sixth National Economic and Social Development Plan (1987-1991) encouraged private sector participation in the transport sector. In Malaysia, the government shifted from public ownership to PPP, to expand the country's highway network. In the Philippines, the central government passed the Build-Operate-Transfer (BOT) Law in 1990, authorizing the financing, construction, operation and maintenance of infrastructure projects by the private sector.

<sup>44</sup> ADB (2008a). See also Roberts and Choe (2011).

<sup>45</sup> Institute of Policy Studies (2006).



An amendment to the BOT Law in 1994 recognized the need for private investors to realize rates of return reflecting market conditions.<sup>46</sup>

Another successful PPP example is the provision of water and sewerage services in Shenzhen, China, formally run by a regular city department. In 2000, the city set up the Shenzhen Water Group Company, LTD, which teamed up with foreign investors, entered into a joint venture with Beijing Capital Company (which provided 40% of the capital shares, and negotiated a contract with Veolia Water Company, which pur-

chased 5% of the shares. By 2008, Shenzhen Water provided more than 90% of the water supply and 99% of sewage treatment services in Shenzhen and two adjacent districts. The group's shareholders also turned the PPP project into a flagship enterprise that, in 2009, signed letters of intent to finance and manage eight water projects in other parts of China.<sup>47</sup>

The Maharashtra state government established a similar partnership between one of its departments and a private agency in Malaysia to provide water services in the city of Badlapur (Box 3.2).



**Many Asia Pacific countries have used PPPs to provide local basic services.**



### **Box 3.2 Maharashtra state: India-Malaysia partnership in water services provision**

Badlapur city (population 190,000) in Maharashtra state used to suffer from intermittent water supply, with residents supplied for only three hours per day. This encouraged water leakage, contamination, and wastage. In 2006, Maharashtra Jeevan Pradhikaran (MJP), the principal water provider for local authorities, partnered with Ranhill, a Malaysian company, to deal with the problem. The partners used a geographic information system (GIS) to identify leakage areas, installed about 2,000 new water meters to prevent tampering, and launched an information campaign to raise citizen awareness of water issues. They conducted on-the-job training in Badlapur, three site visits to Malaysia, and peer-to-peer consultations using electronic media. Ranhill introduced innovative technologies to detect leaks (data loggers with remote access capabilities, leak noise correlators and pressure reducing valves). It also trained MJP staff on the use of the Easy Calc software, developed by the World Bank, to estimate water losses. An analysis of the city system revealed a 34% water loss, which was solved by replacing faulty meters with ultrasonic meters.

The most important innovation used by the partners was the installation of District Metering Areas (DMAs) in the supply system. By breaking down the system into smaller zones, it became possible to accurately measure water consumption rates. The DMAs were also used to find sources of water losses such as pipes and joints leaks, reservoir overflows and illegal connections. In total, 13 DMAs were set up in 10 operating zones and MJP installed bulk meters and data loggers in all the DMAs.

By December 2009, the innovations had resulted in about 80,000 residents in eight wards in Badlapur having a continuous, 24/7 water supply. Once MJP found the reasons for water loss, it was able to use advanced technologies and management techniques to solve the problem. More importantly, MJP then decided to expand these efforts to 25 other water supply schemes in Maharashtra state. It also started exploring opportunities to work with other Indian cities to help them replicate the state's innovative practices.

<sup>46</sup> JICA (2010).

<sup>47</sup> ADB (2008b) pp. 25-27.





**A common criticism of PPP projects is that, in their efforts to maximize profits, they tend to focus their services on affluent communities.**

PPP projects make financing available from the private sector as well as professional, technical and managerial expertise. They make basic services more cost-effective by reducing the need for subsidies and help consumers become more aware of the real cost of services. It is sometimes argued that PPPs make it possible to combine the cultures of public service and private business efficiency, helping to ensure that bottom line profitability is balanced with equitable service.

The PPP approach has been supported by the Public-Private Infrastructure Facility (PPIAF) and its Sub-national Technical Assistance (SNTA) programme in Asia. Since its inception, PPIAF has provided more than USD 34.8 million to fund 141 projects in East Asia and the Pacific, in the form of multi-sector (33%), energy (23%) and water (19%) projects. These PPP projects were

implemented in China, Indonesia, the Philippines, Cambodia, Laos and Mongolia. In South Asia, PPIAF and SNTA have provided more than USD 21.3 million to fund 124 multi-sector (44%), water (22%), and energy (13%) ventures in India, Pakistan and Sri Lanka.<sup>48</sup>

A common criticism of PPP projects is that, in their efforts to maximize profits, they tend to focus their services on affluent communities. When the metropolitan water systems in Metro Manila and Greater Jakarta were managed through a PPP scheme, for example, it was found that the benefits from the schemes were inequitably distributed – services to urban poor communities did not improve as much as those in the gated communities of the rich. However, an innovative way of extending services to poor communities has been used in Metro Manila (Box 3.3).



### Box 3.3 Community management of water services

Water and sewerage services for Metro Manila's 11.5 million people are provided by the Metropolitan Waterworks and Sewerage Authority (MWSS), a government-owned and controlled corporation. In 1997, the Philippine government decided to use a PPP to run the services; the western sector concession went to Maynilad Water Services, Inc. (MWSI) and the eastern sector to Manila Water Company, Inc., (MWCI). A major problem was that about 33% of Metro Manila's population lives in slum areas where water pilferage was common (non-revenue water in the metropolitan area was about 67% before PPP was introduced).

A decade after the PPP project began MWSI faced extreme difficulties and was bought by another concessionaire. MWCI succeeded; by 2005, its non-revenue water had been reduced to 35%. One reason for MWCI's success was the introduction of a community-managed water connection system for urban poor communities like Durian Street in Quezon City.

The bulk water supply in Durian Street was extended by MWCI with the use of a master meter connection, managed by the community-run Water Association of Durian Street. From the metered source, the association piped the water directly to its 228 members through shared connections. The Durian Street network was registered in MWCI accounts as a regular residential connection. The association chose a bulk water arrangement because MWCI was only willing to install meters

<sup>48</sup> PPIAF (Public-Private Infrastructure Facility). *Regional Updates on PPIAF Projects in East Asia and the Pacific and in South Asia*, EAP-regional-update. March 2011.pdf. March 2011 accessed at: <http://www.ppiaf.org> February 16, 2013.

at the entrance of the compound. Due to the distance from the main road, the average cost of a connection could have reached USD 485 per household, about six times higher than the normal connection fee charged by MWCI. Given the number of households involved, there would have been too many pipes between the water meter and the households.

A private contractor was hired to install standard pipes. The project cost of USD 16,237.00 provided 2-inch diameter pipes feeding water to nodes of four households. For each node, the connection cost per household was set at USD 93.40 excluding in-house installations, an average of USD 24.23 per household. For water charges, the MWCI and the association used a variable rate, depending on the cubic meters of water delivered -- the first 10 cubic meters of water were charged USD 0.12, the next 11 to 20 cubic meters USD 0.15, etc., with the top bracket of 101 to 110 cubic meters charged at USD 0.36. The association collected payments from households between the 21st and the 26th day of the month and the treasurer paid MWCI on the 27th of each month.

The residents knew that the bulk water rate for the community was higher than the normal rate charged by MWCI because, in addition to the basic tariff, the charges under the bulk purchase agreement included a rate adjustment for currency exchange, environmental fees, metering service charges, value added tax, cost of maintenance and repair and payments for the meter reader, the community bill collector, and the association treasurer who spent time computing and preparing the individual household bills and kept the books of the association. Even with these additional charges, households ended up paying a lot less for water than they had previously when they bought it from private water peddlers. One household head used to pay USD 21.81 per month for water delivered by the can, but now paid USD 0.34 per month for water piped into his home. On average, each household on Durian street paid USD 5.09 for every 30 cubic meters of water while the average MWCI customer paid only USD 2.23 for the same amount. However, almost all members of the Association were happy to pay the higher rate because they had access to clean, safe and reliable water supply 24/7.



**Public-NGO partnerships have tended to focus on specific issues such as solid waste and sanitation but they have also covered wider areas, like shelter and basic services in low income areas.**

Source: ABD (2012).<sup>49</sup>

### **Public-NGO partnerships**

Since the 1950s, civil society organizations have been set up in many Asia Pacific countries, especially where the urban poor have struggled to get affordable housing, security of tenure and access to basic services. Many NGOs started as militant activist groups, critical of government policies and local government programmes that imposed slum eradication, eviction and the resettlement of slum inhabitants to outlying

areas. These groups, like BRAC in Bangladesh, the Homeless People's Federation Philippines, Inc., and Civic Exnora in India, organized communities around provision of basic services. Civic Exnora started in 1989 as a community-based movement to collect, recycle, compost and dispose of solid waste. It has grown into an organization of around 5,000 groups, with 200,000 members across India, with activities that now include clean and green programmes that involve planting trees and keeping the streets

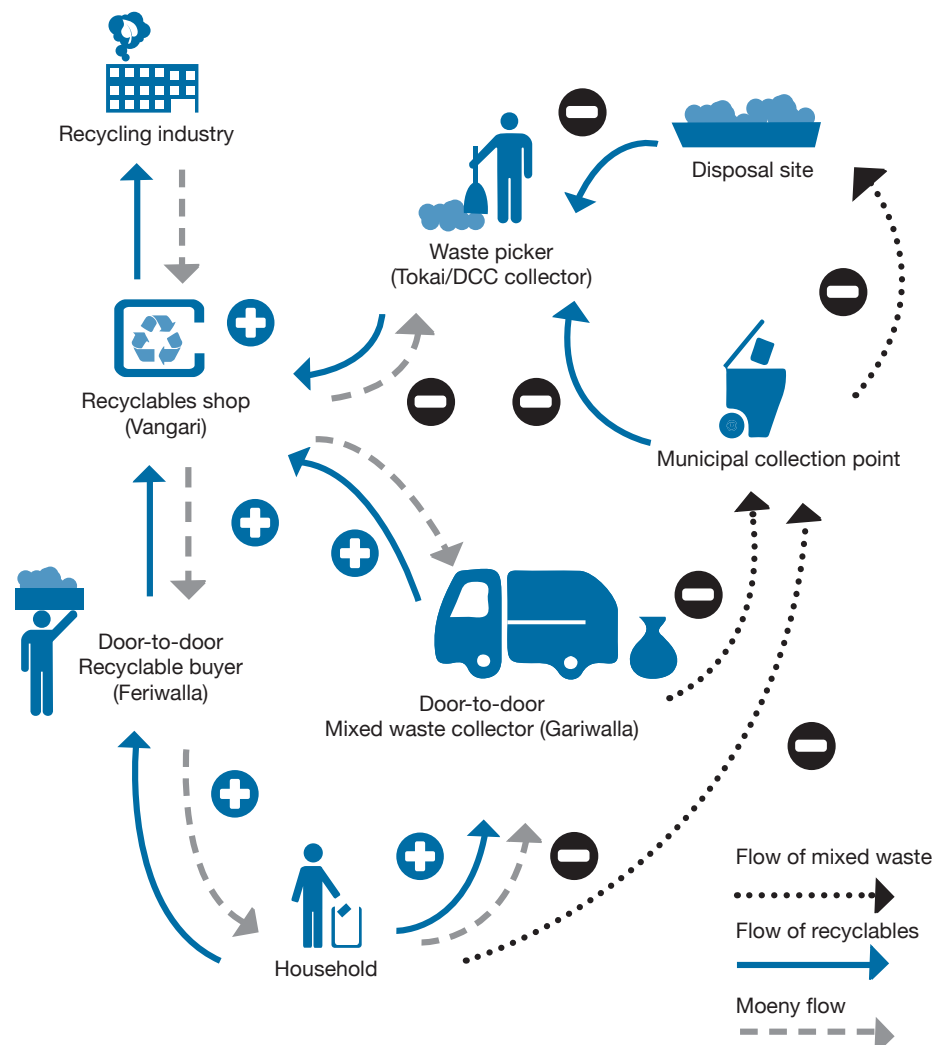
<sup>49</sup> Asian Development Bank, Good Practices in Urban Water Management, Decoding Good Practices for a Successful Future, Mandaluyong City: ADB (2012).

clean, often collaborating with local governments and dovetailing activities with municipal services. For example, in Chennai, Exnora groups hire local “city beautifiers” who collect, sort, recover, recycle and compost garbage, leaving the city solid waste agency with much less garbage to dispose of.<sup>50</sup>

In Dhaka, the solid waste management system depends heavily on the participation of waste pickers, door to door waste collectors, buyers of recycled materials and recycling enterprises. As shown in Figure 3.3, waste segregation is pursued vigorously to reduce disposal at waste collection points and disposal sites. The diagram shows that

the flow of mixed waste runs parallel to the flow of recyclables and money flows. Thus, the solid waste collection and disposal system benefits both the local government and poor households.<sup>51</sup> But the effectiveness of this system depends heavily on the participation of NGOs and CBOs such as Waste Concern, BRAC (formerly the Bangladesh Rehabilitation Assistance Committee), and others. A survey by the Centre for Urban Studies (CUS) funded by the Japan International Cooperation Agency (JICA) identified at least 130 nongovernmental and community based organizations involved in solid waste management.<sup>52</sup>

**Figure 3.3 Solid waste collection and disposal in Dhaka**



<sup>50</sup> MOST Clearing House Best Practices, “Community Participation for Clean Surroundings, Exnora India,” accessed at: <http://www.unesco.org/most/asia>, February 7, 2013

<sup>51</sup> Chowdhury (2012).

<sup>52</sup> CUS (2004).

\* A. Matter, et al. “Improving the Informal Recycling Sector through Segregation of Waste in the Households: the Case of Dhaka, Bangladesh,” Habitat International, 2012. Accessed at: <http://dx.doi.org/10.1016/j.habitatint.2012.06.001>

Source: Matter et al. (2013).\*

In some Chinese cities, community groups partner with city governments to provide basic sanitation facilities. In Suzhou, for example, the Suzhou Public Utility Bureau (SPUB) financed the construction of 245 public toilets in the highly congested city centre, at a cost of USD 8.7 million. The operation, cleaning, repairs and maintenance of the public toilets was contracted out to organized community groups chosen by secret bidding. The winning bidders collect low tariffs from toilet users. The city government, through the Suzhou Environmental Sanitation Administration employs 18 environmental sanitation coordinators who regularly inspect the public toilets to make sure that they are clean and operated properly.

Public-NGO partnerships have tended to focus on specific issues, such as solid waste and sanitation, but they have also covered wider areas, like shelter and basic services in low income areas. In Thailand, for example, a partnership involving the central government, local governments, a local NGO and poor urban communities has successfully provided housing and basic services in thousands of city neighbourhoods (Box 3.4).

### **Small private providers**

Where the private sector operates on its own, it usually involves small operators, often within the informal sector, and often catering to the needs of low-income residents for transportation, solid waste management, sanitation, energy, and slum improvement service. In most Asia Pacific cities, for instance, transportation is provided by private individuals using such vehicles as the *samlors* and *tuktuks* in Bangkok, jeepneys and tricycles in Manila, *betjaks* in Jakarta, and rickshaws in Delhi. Private bus companies are also important service providers in Asia Pacific cities.

Although private services cater to the needs of residents, they can also create problems. Competition between transport providers causes traffic congestion, air pollution

through the use of poorly-maintained vehicles, and higher accident rates. In sanitation, private service providers sometimes just dump waste taken from septic tanks in rivers and streams. Private water suppliers in slum areas charge much higher rates than municipal utilities and often provide contaminated water. Private waste collectors are sometimes more interested in collecting garbage that can be recovered or recycled, neglecting unprofitable wet and ill-smelling waste.

### **Financing models: who pays for what?**

About 45% of Asia Pacific's population lives in cities and towns, but these urban-dwellers occupy only around 2% of the region's land area. Still, about 75% of gross domestic product (GDP) is produced in those urban areas. The capacity in urban areas to achieve economic growth is highly dependent on good infrastructure such as potable water, sanitation, transport and energy. However, providing infrastructure is expensive. The Asian Development Bank estimates that about USD 100 billion a year are needed by its developing member countries (DMCs) to construct new infrastructure and improve, maintain or replace existing systems. At present, about USD 40 billion a year are spent by DMCs on urban infrastructure – about 70% from national and local governments, 20% from the private sector and 10% from official development assistance (ODA). This still leaves an infrastructure investment “deficit” of USD 60 billion.<sup>53</sup>

Aside from lack of funds, local governments face other challenges. Many Asia Pacific countries lack the governance institutions and legal regimes necessary to organize programmes and the professional and managerial expertise to manage projects in a cost-effective way. Local authorities need to be able to formulate and adopt comprehensive city-region plans, develop urban infrastructure programmes, reach out to possible financiers (regional and



**The capacity in urban areas to achieve economic growth is highly dependent on good infrastructure such as potable water, sanitation, transport and energy.**

<sup>53</sup> Cities Development Initiative for Asia. Capacity Development for Improving Urban Infrastructure Preparation and Financing. [www.CityNet-ap.org/...PresentationCityNet-EW-040909](http://www.CityNet-ap.org/...PresentationCityNet-EW-040909), accessed July 9, 2013.

global financial institutions, local public and private banks, insurance companies and pension funds) and develop the capacity to manage infrastructure projects efficiently. Cities Development Initiatives in Asia (CDIA), a technical assistance and funding agency, highlights the urgent need for well-designed country assessments and feasibility

studies that thoroughly assess financial and institutional risks and enhance public, private and community participation.<sup>54</sup> The Asian Development Bank has summarized the infrastructure investment situation in a number of Asian countries as shown in Box 3.5.



**Local authorities need to be able to formulate and adopt comprehensive city-region plans, develop urban infrastructure programmes.**



#### **Box 3.4 Baan Mankong (Secure Housing) programme, Thailand**

In January 2003, the Thai government launched the Baan Mankong (Secure Housing) programme, which channels government funds in the form of infrastructure subsidies and housing loans directly to poor urban communities. The programme is managed by an NGO (the Community Organizations Development Institute, or CODI). Baan Mankong uses the community upgrading approach. Communities work with local governments, central government agencies, professionals, universities and NGOs. It conducts a survey of poor communities and then plans an upgrading programme to improve conditions for the whole city over a period of 3-4 years. Once these plans have been finalized, CODI channels the infrastructure subsidies from the government to households in the form of housing loans. The programmes build on the community-managed approach that CODI has supported since 1992 and on people's capacity to collectively manage their own needs.

An important feature of Baan Mankong is that it imposes few requirements on poor urban communities – CODI gives community residents the freedom to design their own programmes. The upgrading process starts with a clear identification of all stakeholders. Then, a committee made up of community leaders is organized to lead the project. A survey identifies what people want, the problems they need to solve and the resources they are willing to devote to the project. Based on the results, a plan is formulated and adopted by the community. The plans for each community are integrated into a whole city plan, funded and managed with local, city and central government resources. A development and business plan is then drawn up, adopted and implemented.

The overall target for Baan Mankong was to improve housing, services and tenure security for 300,000 households in 2,000 poor communities in 200 Thai cities within five years. In 2003, 10 pilot projects to upgrade 1,500 units in 20 cities were launched. An additional 15,000 units in 42 cities were covered in 2004. By May 2006, some 34,409 households had been reached through 395 projects. The targets by 2007 were to improve 285,000 housing units in 200 cities.

The Baan Mankong programme is different from other community development approaches in that it creates space for people to think about their problems, and then gives them the tools and resources to translate their ideas into housing and basic public service initiatives. As such, the programme helps to strengthen collective social processes, improving security and well-being in ways that reach beyond just providing and developing physical assets.

<sup>54</sup> GIZ (2012).

Source: CODI (2006).





### Box 3.5 Financing infrastructure in selected Asian countries

#### **CHINA – Estimated infrastructure investment needs: USD 83.6 billion per year over 5-7 years.**

Although the Chinese central government plays a dominant role in infrastructure finance, local governments accounted for 85% of fixed assets managed by government in 2004. Local governments are not allowed to borrow from banks but can issue bonds with the approval of the Ministry of Finance. The China Development Bank provides about 50% of infrastructure loan requirements. Local governments can issue bonds using special state-owned enterprises (SOEs) but bond proceeds cannot exceed 30% of project costs. SOEs can also borrow from international and regional financial institutions and manage PPP projects.

#### **INDIA – Estimated infrastructure investment needs: USD 21.1 billion per year over 5-7 years.**

Only about 50 of 3,700 urban local bodies (ULBs) in India are considered credit-worthy enough to access capital markets to finance infrastructure. The 28 states in India raise about 33.3% of their budgets from locally generated revenue, which means ULBs are heavily dependent on central government grants. ULBs can legally borrow for infrastructure investments on recommendation of the State Finance Commission and the approval of the Planning Commission, but not that many small local governments qualify for such loans. Municipal corporations need the approval of state governments to borrow from commercial lenders. To float bonds, local governments need positive credit ratings from Information Services of India, Ltd., or Moody Fitch of India.

#### **INDONESIA – Estimated infrastructure investment needs: USD 7.3 billion per year over 5-7 years.**

Although Indonesia has adopted decentralization laws, the central government dominates infrastructure financing (all infrastructure funds in the past 20 years have come from the central government). Local governments can use state owned enterprises for borrowing and managing infrastructure ventures but procedures are complex and not widely used. The central government allows domestic financing institutions to meet 20% of infrastructure financing requirements. This has the advantage of denominating loans in local currency, avoiding foreign exchange fluctuations. Pension funds and insurance companies, so far, are not very active in infrastructure finance.

#### **MALAYSIA – Estimated infrastructure investment needs: USD 1.5 billion per year over 5-7 years**

The federal constitution provides for central government grants to states but state grants to local governments are not common, amounting to date to about 10% of local revenues. According to the Local Government Act, local governments can borrow for infrastructure projects but loans must be guaranteed by state governments and authorized by the federal government. Conditions for infrastructure loans are quite restrictive. Total borrowing by a local government cannot exceed 5% of its current balance sheet. Loans have to be repaid within six years. State owned banks

are the main sources of local infrastructure loans. The central government has been more successful in floating Islamic Private Debt Securities (PDS) to finance privatized water and power plant projects. About 35% of PDS bonds are medium term (5-7 years) and 65% long term (7 years). A significant proportion of the securities are purchased by the Employees Provident Fund, the national pension fund.

**PAKISTAN – Estimated infrastructure investment needs: USD 1.9 billion per year over 5-7 years**

The federal constitution allows provincial governments to borrow against the Provincial Consolidated Fund set up by the central government. However, the local government ordinance allows financing of infrastructure projects only from budgetary support augmented by external financing. Domestic banks are not allowed to lend to local governments. Some local public utilities can float bonds but they need to have appropriate credit ratings. Pension funds and insurance companies have very limited roles in financing infrastructure from loans.

**THAILAND – Estimated infrastructure investment needs: USD 3.6 billion per year over 5-7 years**

In Thailand, local governments are allowed to borrow for infrastructure investments but such loans have to be approved by the Ministry of the Interior (MOI). The central government also limits the expenditure of each local government, which must not exceed 97% of average revenue for the previous three years. Local governments may not borrow from private financial institutions (except from trust funds). They can borrow from the Municipal Development Fund (MDF) which is sourced from the annual budget surpluses of local governments (the MOI requires that 10% of local excess budget funds each year have to be transferred to the MDF). All local government loans have to be repaid within 15 years.

**PHILIPPINES - Estimated infrastructure investment needs: USD 3.5 billion per year over 5-7 years**

The 1991 Local Government Code allows local governments to issue revenue-based bonds and other securities to finance infrastructure. Eight central government agencies can also make loans to local governments for financing local infrastructure projects. Local governments can borrow from commercial banks to finance capital projects without prior central government approval although not many do so because local officials are often unfamiliar with complex financing schemes and find it easier to depend on central government grants (in 2008, local loans made up only 5% of local revenues). The Local Government Guarantee Corporation of the central government issues credit ratings to local governments, but only 435 out of 1,680 units have obtained preliminary credit ratings as of 2008. The LGUCC also guarantees all the bonds issued by local governments. The main sources of local government borrowings are the Land Bank of the Philippines and the Development Bank of the Philippines (about 70% of local loans are with the Land Bank). Both banks have international credit ratings and can lend either in local or foreign currencies.

In the Philippines, financing of water and sewerage services involves a large number of entities. As shown in Figure 3.4, the main sources of international financing are the World Bank/International Bank for Reconstruction and Development (WB-IBRD) and the Asian Development Bank (ADB). Even prior to the privatization of the water system in Metro Manila, outstanding debts of the Metropolitan Manila Water and Sewerage System (MWSS) to WB-IBRD (as of 1995) came to USD 249 million.<sup>55</sup> Some bilateral aid agencies provide financing as well. For example, the Japan International Cooperation Agency (JICA) financed pre-feasibility studies for the privatization of the Metro Manila water system, and the French government paid USD 1 million for a study tour of Filipino officials to Buenos Aires in 1996 to see how a privatized water system works.

At the metropolitan level, a recent development has been the emergence of private water development companies, like Manila Water Company, Inc., Maynilad Water Services, Inc., and Cebu Water Consortium, which act as concessionaires for water projects and often team up with international companies and government agencies. Manila Water, for example, worked with United Utilities (UK) and Bechtel Corporation (USA) to finance and manage water services for the eastern Zone of Metro Manila, while Maynilad Water Services partnered with Suez of France to look after the western zone. Manila Water has become so large that it now manages and partly funds the privatized water system in Ho Chi Minh City, Vietnam. At the local level, Manila Water signed a joint investment agreement with the Cebu provincial government in 2012 to set up a bulk water project with Suez, Veolia, and Bechtel providing support for setting up systems supplying potable water to the northern part of Metropolitan Cebu. It even agreed to pay 35 million pesos to the Municipality of Carmen to tap water from the Luyang River.<sup>56</sup>

In Figure 3.4, direct flows of funds from one agency to another are indicated by solid lines. Dotted lines indicate policy linkages and monitoring and evaluation relationships. Thus, at national level, the National Economic and Development Authority (NEDA) is the main agency coordinating financing, planning and management of basic services (including water) as it formulates and oversees the implementation of the Five-Year Economic and Social Development Plan. An important unit of the NEDA is the Public-Private-Partnership Office (PPPO), which supervises and monitors all PPP schemes in the country. For all public financing services, the main agency is the Department of Budget Management (DBM), which is in charge of formulating the national budget and releasing funds to national and local government agencies.

Responsibility for overall supervision of local governments in the Philippines is vested in the Department of the Interior and Local Government (DILG). The secretary of DILG exercises supervision (but not control) over all governors, mayors and local government officials. The Department of Health (DOH) carries out construction and other projects directly or through contracts. The National Water Resources Board (NWSB), a cabinet level body, is in charge of policy formulation, standard setting, economic regulation and the issuance of directives to local governments on water matters. The Local Water Utilities Administration (LWUA) provides financial assistance to local governments, guarantees loans for projects, looks after institutional standards and certifies that they are met. The Department of Public Works and Highways (DPWH) oversees the development of water-related agencies and provides them with technical assistance.<sup>57</sup>

The Central Bank of the Philippines (CB) oversees all financial investments related to basic public services. In December 2012, for example, the CB ruled that a single borrower cannot finance more than 25%

<sup>55</sup> Laquian and Argo (2007) p. 236.

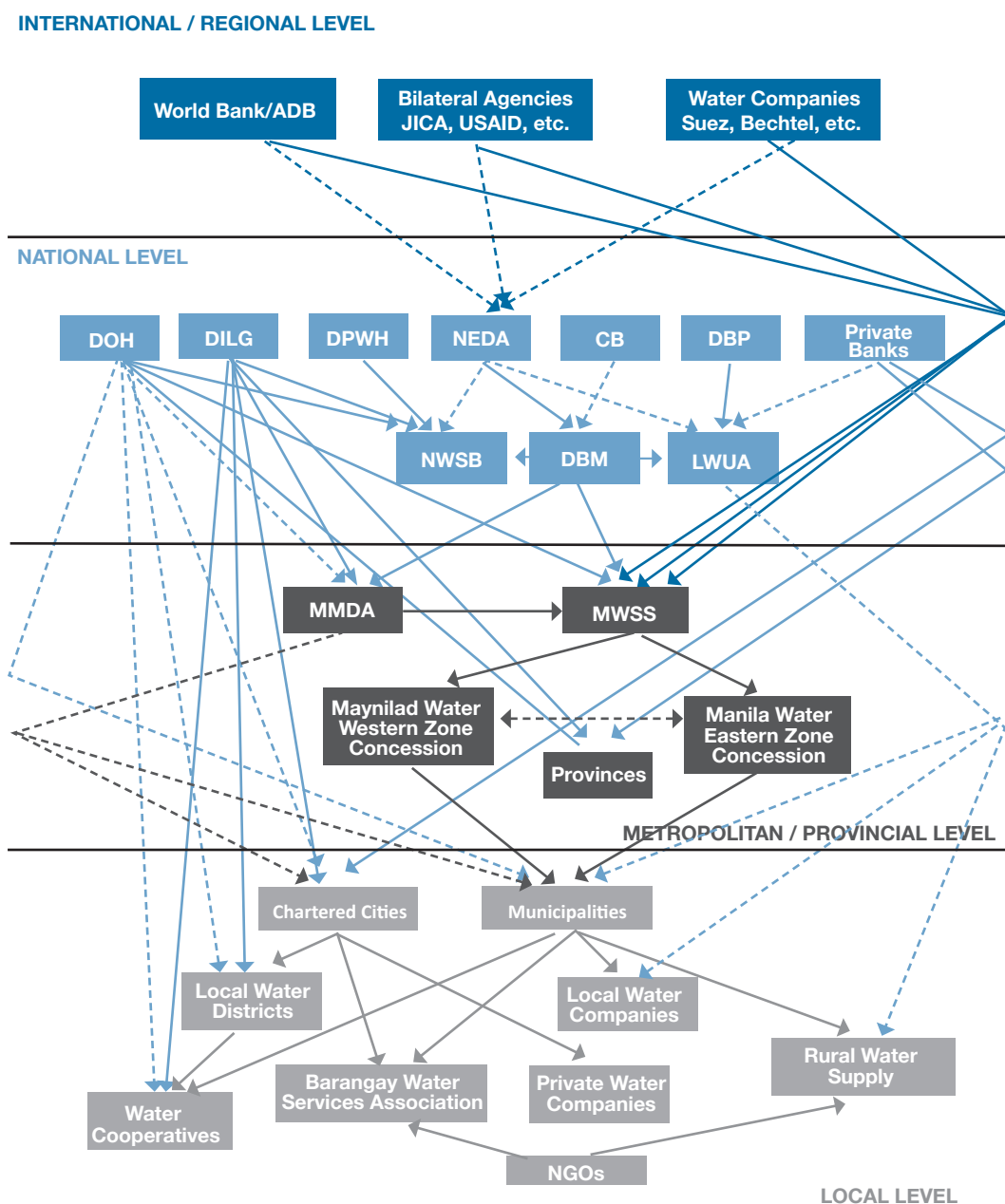
<sup>56</sup> Matus (2012).

<sup>57</sup> Ocenar (2012).

of PPP project costs from bank loans (up from 20% in 2004) so as to limit the exposure of banks. Financing for water projects can also come from government banks, such as the Development Bank of the Philippines or the Land Bank. In recent years, private banks have achieved high liquidity

levels that have enabled them to finance local water projects by buying city-issued bonds. Provinces and cities can borrow investment funds, but local loans need central government approval and foreign loans need a sovereign guarantee from the central government.

**Figure 3.4 Key actors in financing water services in the Philippines**



At city and municipal levels, the financing of waterworks is coordinated by the LWUA and DILG. In rural areas, there are about 580 Local Water Districts, 1,000 Local Water Companies and 500 Rural Water Supply Associations across the country; and at the lowest level, about 3,100 Barangay Water Services Associations, most of which finance and manage improved systems by developing springs and deep wells. About 200 water cooperatives and 900 private companies also provide water.<sup>58</sup>

### Central government transfers

Most local governments in the Asia Pacific are dependent on central government transfers to finance local basic services.

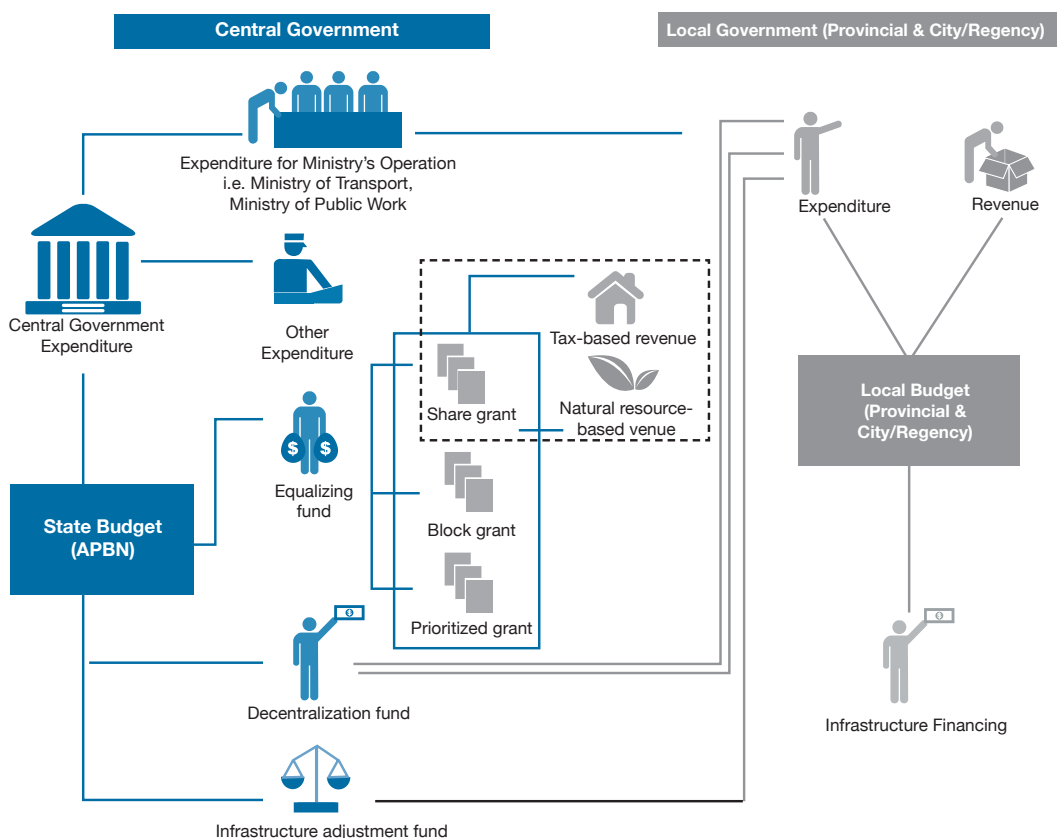
These may take the form of allocations based on formulas (as in the Philippines and Malaysia, where population size and annual incomes of local governments are used as the bases for calculating allocations); special one-off grants for specific projects; or shares of the central government in privatization and PPP schemes.

As seen in Figure 3.5, funding for transport projects in Indonesia may come from central government direct grants from ministries; equalization funds; block grants; prioritized grants; the decentralization fund; or the infrastructure adjustment fund. It may also come from local government revenue included in the budgets of provinces, cities and regencies (*kabupaten*).



**Most local governments in the Asia Pacific are dependent on central government transfers to finance local basic services.**

**Figure 3.5 Funding sources for transport projects in Indonesia**



Source: Cited in Syabri (2012).

<sup>58</sup> Ocenar (2012).





**Most local governments are not authorized to collect income, payroll or general sales taxes.**

The Ministry of Transport estimated in 2008 that for Indonesia to meet its economic target of a 7% GDP growth rate, it would need transport infrastructure investments of around USD 145 billion. Of this amount, about USD 25 billion (17%) could come from national government revenue and USD 30 billion (21%) from domestic funds. That still leaves about USD 90 billion (62%) that needs to be provided either by foreign and domestic loans or local government revenue sources.<sup>59</sup>

#### **Local revenues for financing basic services**

In general, local governments in Asia Pacific have difficulties in financing infrastructure investments from local revenue sources. Most local governments are not authorized to collect income, payroll or general sales taxes. Only a few (such as those in the Philippines) are empowered to collect property taxes, a major source of local revenue in many higher income countries. Few Asia Pacific cities are like Makati, in Metro Manila, where 93.1% of the total budget of USD 7.4 billion (2011-2012) came from local sources, and only 6.9% from the central government. Even in a relatively affluent city like Melbourne, Australia, only about 47.1% of the city's USD 22.3 billion income came from local sources.

More typical is Solapur, India, where only 1.5% of 2011-2012 income was locally raised. A significant proportion of Solapur's income (about 38.9%) came from the *octroi*, a tax traditionally levied by Indian municipalities on commercial goods brought into their jurisdictions. This tax used to be favoured by local officials because it was not directly imposed on local residents and was easy to collect. However, the *octroi* was abolished in 2000 and it is now used only in Maharashtra state.

In Nepal, the *octroi* was also abolished but instead the central government gives local governments Local Development Fees (Table 3.5a). Local governments in Nepal include 58 municipalities and 3,915 village development committees (VDCs). They are heavily dependent on resources from the central government in the form of direct central government grants, supplemented by Local Development Fees; loans from public and private sources; savings from previous years' budgets; and locally raised revenue from taxes, permit fees, fines, user charges for local enterprises. Table 3.5a and 3.5b show, respectively, the distribution of incomes of municipalities and Village Development Committees.

In Pakistan, the usual revenue sources for local governments are local taxes; permit fees, fines, and fees collected from market

**Table 3.5a Income sources of municipalities in Nepal (%)**

| Fiscal Year | Central Government Grants | Local Development Fees | Loans | Miscellaneous | Balance from Previous Year | Local Revenue |
|-------------|---------------------------|------------------------|-------|---------------|----------------------------|---------------|
| 2008-2009   | 37.2                      | 28.4                   | .4    | 4.9           | 6.5                        | 22.6          |
| 2009-2010   | 37.7                      | 15.5                   | 1.3   | 4.7           | 21.8                       | 18.9          |
| 2010-2011   | 46.7                      | 17.8                   | 1.0   | 6.4           | 7.9                        | 20.2          |

*N=58 Municipalities.*

<sup>59</sup> Syabri (2012).

**Table 3.5b Income sources of Village Development Committees in Nepal (%)**

| Fiscal Years | Central Government Grants | Grants under the Local Government and Community Development Programmes | Locally Raised Revenue | Total |
|--------------|---------------------------|--|------------------------|-------|
| 2008-2009    | 94.6                      | 0.0  | 5.4                    | 100.0 |
| 2009-2010    | 80.4                      | 12.3   | 7.3                    | 100.0 |
| 2010-2011    | 77.6                      | 13.5   | 8.9                    | 100.0 |

*N=3,915 Village Development Committees; Source Lamichhane (2012).*

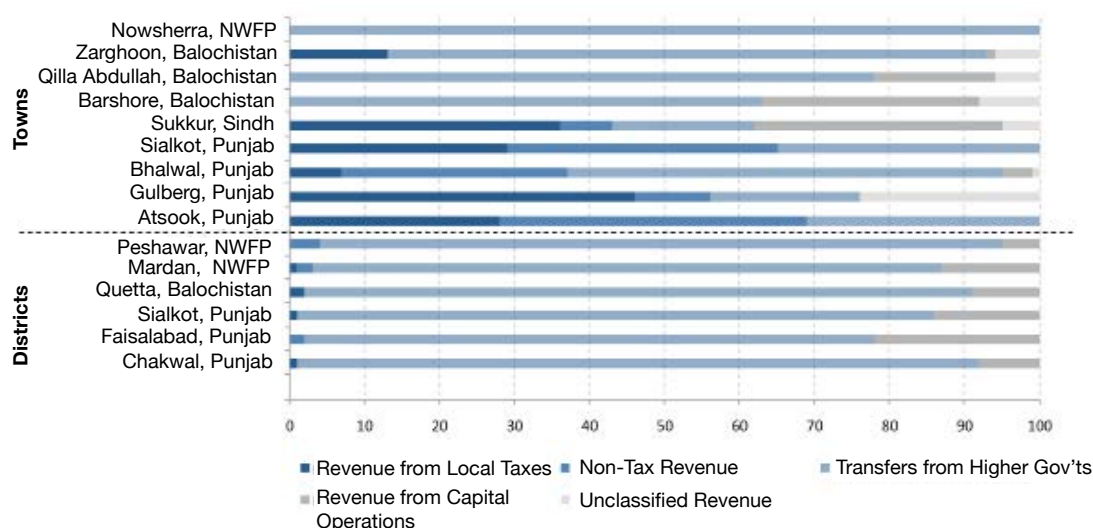
vendors' revenue from capital operations, usually of local enterprises; and (the greatest part) transfers from higher levels of government, federal or provincial. As Figure 3.6 shows, the percentage of funds from transfers was as high as 91% in the districts of Chakwal and Peshawar. In the town of Nowsherra in the North West Frontier Province, 100% of income came from fund transfers from the province or the central government.<sup>60</sup>

With so many local governments in Asia Pacific barely able to raise local revenue to meet day-to-day operational needs, it is even more difficult for them to find resources

to invest in improving basic local services. Efforts are being made to change this in India, where the central government has set up the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) to supplement local resources grants for building urban infrastructure and services. Urban local bodies must carry out mandatory reforms: improving accounting systems, ensuring taxes are levied on real properties and that at least 90% of real property taxes are collected, and must commit to funding 100% of the costs of operation and maintenance of water supply and solid waste management services with user charges.<sup>61</sup>



**With so many local governments in Asia Pacific barely able to raise local revenue to meet day-to-day operational needs, it is even more difficult for them to find resources to invest in improving basic local services.**

**Figure 3.6 Local revenue by sources in selected towns and districts in Pakistan (%)**

Source: Bahl and Cyan (2009).

<sup>60</sup> Bahl and Cyan (2009).

<sup>61</sup> Mathur (2012).



**Even where user fees and charges have low yields, local governments often use them to encourage more efficient use of basic services.**



**An increasingly popular source of local funds in Asia Pacific is the “monetization” of the value of public land.**

### ***Equalization payments***

Some countries in the Asia Pacific have adopted equalization payments to address fiscal disparities. Central governments in China, Indonesia, Thailand and Vietnam, for instance, allocate grants to local governments based on population, poverty rates, land area, and construction costs of projects. In Indonesia, local and regional governments get 25% of central government revenues, about 10% to provinces and 90% to local governments, covering about 50% of provincial expenditures and 70% of local government spending.<sup>62</sup>

### ***User fees and charges***

Most organizing authorities in charge of basic public services try to collect enough from customers to meet the costs of capital, operations and maintenance; but this is often difficult to achieve. In Thailand, local authorities levy charges on garbage collection, mass transport, and other public utilities but find it difficult to set appropriate rates and collect funds. Local governments in the Philippines have over 30 types of user fees and charges but the proceeds make up only a small part of their income. Services like water, electricity, and transport are usually more successful in raising funds because of the volume of demand and the relative willingness of customers to pay for a much needed service. For sanitation and solid waste collection and disposal, however, raising income is more difficult, especially in slum areas where peoples' capacity to pay is low.

Even where user fees and charges have low yields, local governments often use them to encourage more efficient use of basic services. In Bangalore, sewerage charges are levied as a part of household water bills (usually at a rate of 15 to 20%). Similar charges are imposed in Chennai, Hyderabad and Delhi. In some cities, there is monthly sewerage charge on each toilet seat in a house-

hold. Some local governments impose a one-time payment when a sewerage system is connected; others add the sanitation charge to the annual rate value of the property tax, as in Allahabad and Lucknow.<sup>63</sup>

### ***Land as a development resource***

An increasingly popular source of local funds in Asia Pacific is the “monetization” of the value of public land. In China, this is the main source of financing for basic public service projects for many local governments. Article 18 of the Administration Law on Real Estate (1994) specifies that all fees paid by developers when granted land use rights are turned over to the State Treasury and earmarked for financing urban infrastructure and land development schemes. A 2004 revision of the law allocated 30% of land fees to the Ministry of Finance and 70% to the relevant local authority. The law provides that all land use fees must be paid in full upon approval of the development of land parcels which enables local authorities to budget this resource in a rational way.<sup>64</sup>

In Suzhou Municipality, China, land was used by the local government to partly finance a solid waste incineration and power generation plant, built in 2004 under a build-operate-transfer (BOT) scheme with China Everbright International Ltd., of Hong Kong.<sup>65</sup>

In India, local governments can generate income from the development of so-called *gunthewari* plots, land parcels that are not yet properly developed because they lack road access or basic amenities like water and sanitation. To convert these plots, local Town Planning Offices prepare official plans, approved by city and municipal councils, and the fees for the change in status go to the local government. Normally, governments like the *gram panchayat* are not allowed to change the status of *gunthewari* plots but some do this for the extra income. Private developers (though not

<sup>62</sup> Hofman and Cordeiro Guerra (2005) p. 67-83.

<sup>63</sup> Mathur (2012).

<sup>64</sup> Laquian (2012).

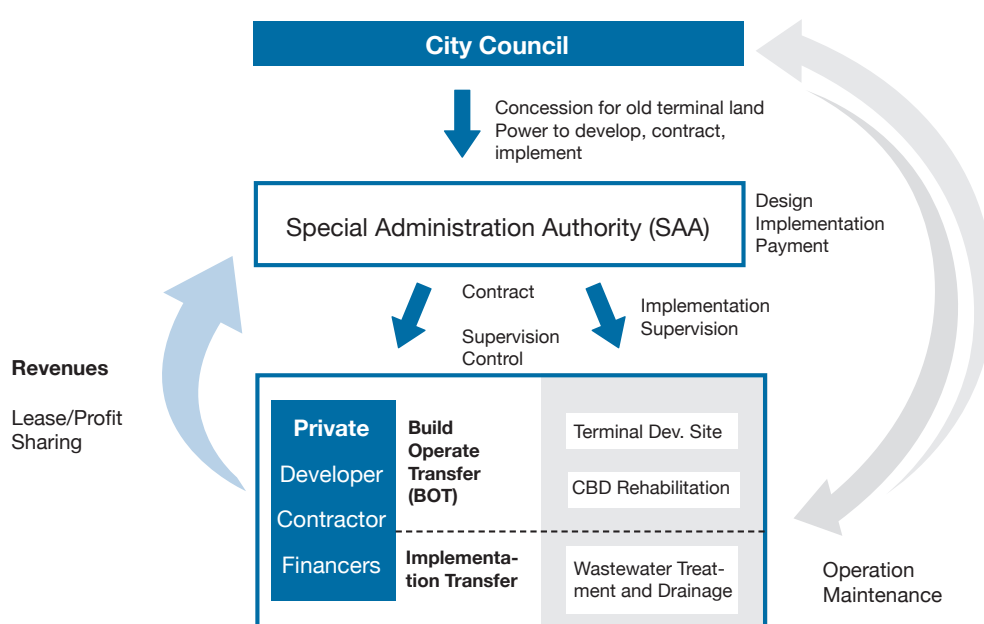
<sup>65</sup> ADB (2008b).

established banks) also extend loans to individuals wanting to set up developments in *gunthewari* plots (sometimes up to 85% of total valuation) and this facilitates development of these plots and adds to local revenues.<sup>66</sup>

### Domestic and foreign borrowing

The ideal is for local government schemes to be fiscally sustainable and cover expenditures on basic services from their own revenues, but this is extremely difficult.

**Figure 3.7 Land development scheme, Banda Aceh, Indonesia**



**Most local governments in Asia Pacific finance some projects from domestic or international borrowing. Their ability to borrow is limited by strict rules and regulations imposed by central governments.**

Source: Adapted from CDIA PPP Guide for Municipalities (2012) *op cit*.

The city of Banda Aceh in Indonesia has developed an innovative way of using public land to pay for basic urban services (Figure 3.7).

After the devastating 2004 tsunami, the city needed funds for a wastewater treatment plant and the repair of city roads. An old bus terminal belonging to the city was leased to private developers for commercial and housing development, using build-operate-transfer (BOT) approaches. The revenues went to the road projects and wastewater treatment plant.<sup>67</sup>

Most local governments in Asia Pacific finance some projects from domestic or international borrowing. Their ability to borrow is limited by strict rules and regulations imposed by central governments.

In the Philippines, local authorities can borrow from domestic and foreign sources. For loans from government financial institutions (generally at lower rates), they float bonds, guaranteed by the Local Government Unit Guarantee Corporation or LGUGC and issued with the approval of the Central Bank of the Philippines and the Securities and

<sup>66</sup> Mathur (2012).

<sup>67</sup> Cities Development Initiative (2012).



**The marked successes of PPP in Australia, China, Philippines, New Zealand and other countries do not mean that such projects have been trouble free.**

Exchange Commission, a central government special regulatory body. To use loans for financing basic infrastructure and services projects, a local government must prepare a local development plan and a public investment programme, approved by the local legislative body and the central government. Loans from international sources, especially institutions like the World Bank or Asian Development Bank, require a sovereign guarantee from the central government and strict monitoring by the Ministry of Finance.<sup>68</sup>

Local governments in Cambodia are not authorized to borrow to finance basic public services projects without explicit approval from the central government. Oversight is handled by the National Treasury and the Budget Department of the Ministry of Finance. The rapid growth of the capital city of Phnom Penh, however, required an effective water supply system set up in the form of the Phnom Penh Water Supply Authority (PPWSA), described above. The PPWSA received both grants and loans from the UNDP, the World Bank, the ADB and the French and Japanese governments. With these resources, the PPWSA was able to set up one of the most efficient water supply systems in Asia Pacific. The loans are being repaid over a long term period through user charges, greatly helped by the fact that the PPWSA has a 99% collection rate.<sup>69</sup>

State owned enterprises (SOEs) set up by local governments in China are authorized to borrow funds from international finance institutions. The government, however, is wary about loans because they involve foreign currency conversions, and has been selective in supporting projects (Box 3.6).

### ***Financing PPP projects***

In the past few decades, many local governments in the Asia Pacific have financed basic service projects through public-

private partnership schemes. The first PPP project in China, launched in 1992 in Tanzhou, was a 30-year concession contract to provide treat water to residents. It was signed by the Tanzhou authorities, Lyonnaise des Eaux (Now Suez Environment) and New World, a Hong Kong based conglomerate. Since then, PPP projects in China have grown rapidly.<sup>70</sup>

They have taken three main approaches. In the first, a local government is designated the organizing authority, be it a small town like Tanzhou (70,000), a medium-sized city like Changzhou (4 million) or large city like Shanghai (28 million). This clarifies who is mainly responsible for the project, specifies financial obligations and commitments of the local unit and indicates the lines of authority for managing the enterprise.

In the second approach, a PPP project may involve only partial privatization (for example, with 50% of the share capital sold to a private partner). Usually, the local government provides up-front financing (about 30% in capital payments and 70% from bank loans). A key resource contributed by the local government is often the monetized value of public land. These financial contributions denominated in the local currency (*renminbi*) are very important because their values are not subject to foreign exchange fluctuations, a big risk in foreign-funded projects. Most PPP projects in China follow a third model, in which both partners act as shareholders and co-managers of a joint venture. Usually, the projects use local staff while a foreign partner provides high level technical, financing and managerial expertise. Working relationships between partners are formalized through contracts that spell out the respective roles and authorities.

The focus in New Zealand is on models that will achieve greater economies of scale in waste water treatment networks. Wellington City created a council-controlled organization to manage not only its network but

<sup>68</sup> Gooptu (2005) pp. 53-65.

<sup>69</sup> Kimunn (2012).

<sup>70</sup> Lorrain (2012) pp. 308-322.





### Box 3.6 The Chongqing wastewater project, China

Chongqing is a booming metropolis at the confluence of the Yangtze and Jialing Rivers in central China. In 1990, the city's wastewater system discharged raw sewage into the two rivers, threatening water quality. Solid waste was dumped in unsanitary landfills. The opening of the Three Gorges Dam about 600 km downstream from the city worsened the situation as it reduced the Yangtze's flushing capacity. To solve its problems, Chongqing municipality planned to build 21 wastewater treatment plants along the two rivers. These plants would have taken up precious real estate, emitted malodorous gas and degraded the quality of life of nearby residents.

Approached by the Chinese government, the World Bank proposed a project to modify the city's master plan. It involved channelling the sewage to two large-scale wastewater treatment plants 15 km downstream from the city centre and treating the waste before releasing it in the rivers. Financing the project required grants from the Japanese and Italian governments for technical advice and assistance; a loan from IBRD, the World Bank's lending arm; and additional funding from both the Chinese central and local governments. After the project started, the Chinese central government provided an additional USD 70 million to finance projects focused on roads, water provision and flood control in eight small counties adjacent to the city. These projects, in turn, served as pilot efforts in the Chongqing Small Cities Infrastructure Improvement Project that eventually received a separate USD 180 million loan from the IBRD in 2007.

The Chongqing project transformed the public water and wastewater utilities into corporations made financially viable through a reformed tariff strategy. Tariff increases put the utilities on a sustainable path and generated resources for operations, maintenance and investments. The utility companies also upgraded management standards and provided technical training for the operation of a modern landfill facility and wastewater treatment plants. The most important accomplishment has been the improved quality of water in the Yangtze and Jialing rivers. Monitoring data from the city's Environmental Protection Bureau indicated that by 2006, 90% of water in the two rivers met class II drinking water source standards (on a scale of I to V) and 100% of the water met class III standards, considered safe for drinking after treatment.

Source: World Bank (2007).

also that of three neighbouring cities. Both Wellington City and its neighbour, Hutt City, have invested in PPP projects using the design-build-operate (DBO) approach. When several local governments encountered problems with PPP projects, the Government curtailed their use. But this policy was

repealed in 2010 and many local governments have launched PPP schemes since then.<sup>71</sup>

South Australia has used an "alliance contract" to finance and manage a water supply and waste management project worth USD 1.1 billion. The contract was signed

<sup>71</sup> Reid (2012).



**A serious problem with PPP projects supported by foreign firms is that they often require loans denominated in foreign currencies whose values fluctuate.**

with Suez Environment and its Australian subsidiary, Degremont, as well as with Transfield Services, a local enterprise. Capital shares were held as 25% by Suez, 25% by Degremont, and 50% by Transfield. The project involved construction, operation and maintenance of six water treatment plants, six wastewater treatment plants and 16,000 km of network and wastewater re-use systems serving 1.1 million people.<sup>72</sup>

The marked successes of PPP in Australia, China, Philippines, New Zealand and other countries do not mean that such projects have been trouble free. Some problems are associated with PPP ventures:

- Some PPP projects are over-designed and over-built because private partners often use the latest technological approaches which can be more expensive.
- Many projects are built in one stage instead of several stages, which often increases costs.
- Local governments often find it hard to manage projects after the private partners move on because institutional and staff development programmes are not included in the schemes.
- The benefits from PPP projects tend to be inequitably distributed among a city's population, with the urban poor often denied access because of their low ability to pay.

Some PPP projects in Asia Pacific have encountered specific problems. In Thailand, the Greater Bangkok mass transit project incurred massive cost overruns because of lack of coordination among competing agencies. The Expressway and Rapid

Transit Authority (ERTA) signed a concession contract with the Bangkok Expressway Co., Ltd. (BECL) in 1988 while the Department of Highways (DOH) signed a concession contract with the Don Muang Tollway, Co., Ltd. (DMT) in 1989. The fragmented contracts created confusion and inefficiencies. In 1996, in fact, the DMT was not able to meet its cash flow obligations because toll revenues were less than forecast.<sup>73</sup>

A serious problem with PPP projects supported by foreign firms is that they often require loans denominated in foreign currencies whose values fluctuate according to international financial conditions. This was a serious problem in the water PPP projects in Metro Manila. When contract started, the exchange rate was Philippine pesos 26.30 to USD 1.00 but when a global economic crisis hit in 1997, this plummeted, the foreign debt of the Philippine concessionaire doubled and it was forced to turn over the project to the government in March 2001 when it ran out of funds.<sup>74</sup>

#### Potential improvements to PPPs



<sup>72</sup> Moege (2012).

<sup>73</sup> Marome (2012).

<sup>74</sup> Laquian and Argo (2007).



Photo: The BigTouffe

## 3.5

### Existing and emerging challenges

Although a number of local governments in the Asia Pacific region have done quite well in meeting people's needs for local basic services, a number of emerging trends pose serious challenges:

#### *Demographic changes*

While population growth has been declining in the Asia Pacific, the persistent increase in the urban population, with its associated demands for improved provision, will continue to challenge and even overwhelm urban governments especially. The region is not expected to reach the urban “tipping point” until around 2026 but, between 2013 and 2020, some 411 million people (about 60% of the world's urban population) will be added to cities and towns in the region. A decline in birth rates will create a larger group of elderly people with special service needs at a time when the productive labour force will have significantly declined. This changed demographic make-up is particularly noticeable in Japan and Korea, which may soon have negative population growth rates, but is also apparent in China where population control measures have contributed to a higher proportion of elderly people. The change is also



**Countries fearful of local governments' independent spending are likely to re-centralize authority and power in the context of economic crises.**



**At least 38% of the world's port cities are in the Asia Pacific and most of them will need to be prepared for emergencies.**

most marked in urban areas where basic services demands will most likely increase at the same time that the productive age cohorts decrease.

Much of the urban growth in the region will occur in small and medium-sized cities. But at the same time, some metropolitan areas will become meta-cities with populations of 20 million or more. Some of these cities are old, with decaying urban cores where basic services need to be upgraded. Some have culturally important structures that may be destroyed in the obsessive rush to become “world class”. The sprawl from expanding urban agglomerations will engulf rich agricultural lands, reducing food supplies and straining the extension of basic urban services like transport, water and sanitation and solid waste disposal.

#### ***Energy costs***

Providing basic services to urban areas will require massive supplies of energy. Many Asia Pacific countries are dependent on fossil fuels, the bulk of which have to be imported and require valuable foreign exchange. Efforts to tap alternative energy sources remain costly. Electricity produced by solar panels in small area grids costs 51 cents per kWh while electricity from coal-powered plants in main grids costs 4 cents per kWh. The use of nuclear energy for electricity generation remains uncertain because of fear of accidents, as in Fukushima. While advances in the use of solar energy have been achieved in China, production of solar panels has been adversely affected by accusations of dumping and unfair trade practices from the United States and Europe.

#### ***Global economic crises***

The influence of globalization has penetrated Asia Pacific and some countries, especially those with export-oriented economies, are likely to be adversely affected by

economic crises. The economies of China, India, Japan, Korea and other countries were seriously affected by the latest crisis which began in 2008. Countries fearful of local governments' independent spending are likely to re-centralize authority and power in the context of economic crises. This, in turn, will weaken the ability of local governments to provide services.

#### ***Environmental problems and climate change***

Delivery of local basic services in Asia Pacific will be seriously challenged by environmental problems, particularly rising sea levels and the increasing frequency of destructive weather events. A number of Asia Pacific countries are located in the so-called “Ring of Fire,” where volcanic eruptions, earthquakes and tsunamis regularly occur. Small Pacific Island countries are already losing significant parts of their territories to rising sea levels. At least 38% of the world's port cities are in the Asia Pacific and most of them will need to be prepared for emergencies. Climate change may also disrupt the weather conditions in the region and adversely affect agricultural productivity. The implications in dense urban areas with poor infrastructure will be especially challenging.

#### ***Economic and social inequality***

Inequality among groups of people, as well as between growing and lagging geographical areas, is widening in the Asia Pacific. The 550 million or so people who live in slums are glaring proof of this inequality. In many cities, the rich enjoy modern services and conveniences in gated communities, while the poor have inadequate access to basic necessities. As this urban divide persists, it creates the conditions for social upheavals and potentially violent unrest. The energy and creativity of the urban poor have been tapped by NGOs and other civil society groups to enable people to use self-help



measures to provide basic urban services. Case studies have shown, however, that while these projects achieve significant results, they are difficult to sustain. Scaling-up efforts are needed to make these activities sustainable and integrate them into formal municipal services and programmes.

### **Revolution of rising expectations**

Economic growth and urbanization in the Asia Pacific are spurred by a revolution of rising expectations that is, in turn, fuelled by the explosive spread of information technology. Mobile phones and other means of communication have penetrated even remote areas, as shown by tele-density

figures (number of phone users per 100 persons) of 74.0 in China and 70.8 in India. As more people aspire to achieve the lifestyles enjoyed in technologically advanced countries, they will demand more amenities and services. The stark challenges become clear if one imagines a future where every person eats a calorie-rich North American or European diet, every pit latrine is replaced by a flush toilet, every stove fuelled with sticks and dried cow dung is replaced by an electric stove or microwave oven, and every bicycle or rickshaw rider drives a Toyota Land Cruiser or a Hummer. The world would need the resources of three additional planet Earths to meet such expectations.



### **Box 3.7 Asia's Urban Infrastructure Challenge**

Shortfalls in urban infrastructure are hampering development in many low and middle income countries in Asia by undermining the competitiveness and social and environmental sustainability of cities; about 20% of potential economic growth in India, for instance, is not realized because of urban infrastructure deficiencies nationwide.

Faced with the pace of urbanization and the stress put on urban infrastructure by migration and informal development, incremental approaches to infrastructure development are no longer adequate. As mentioned above, it has been estimated by the Asian Development Bank (ADB) that the annual requirement for new infrastructure and the replacement or improvement of existing assets in Developing Member Countries (DMCs) will be on the order of USD 100 billion per annum over the next two decades. At present, only about USD 40 billion a year is invested in urban infrastructures. In addition to the quantitative urban infrastructure investment gap of about USD 60 billion per annum, the quality and focus of current infrastructure investments also need to be improved in most DMC cities.

These quantitative and qualitative gaps in urban infrastructure development are caused, primarily, by the inability of national and local entities responsible for urban infrastructure delivery to access available sources of finance. This is caused, in large part, by a shortage of well-conceived urban infrastructure projects that are attractive for both public and private sector investors, compounded by a lack of communication between urban infrastructure investment project managers (particularly local governments) and financial institutions. There is a mutual lack of knowledge about urban-scale investment financing opportunities.

It is imperative that cities be able to clearly demonstrate the financial, environmental and social viability of their infrastructure projects, particularly to the private sector. Feasibility studies need to be reoriented towards private sector financiers, with simpler and more concise studies that thoroughly assess the financial and institutional risks of investment.



**In many cities, the rich enjoy modern services and conveniences in gated communities, while the poor have inadequate access to basic necessities.**

*Source: Contributed by Cities Development Initiative for Asia (2013).*



## CONCLUSIONS



**More appropriate laws are needed to enable local governments to levy more taxes and borrow funds from domestic and foreign sources, and to operate and manage public utilities.**

### ***Institutional and legal frameworks***

In most Asia Pacific countries, central governments play a dominant role in providing local basic services. They set policies and standards, provide the bulk of financial resources, and largely control access to foreign and domestic credit sources. But local governments are closer to people and generally more engaged with, and responsive and accountable to, their constituents. There is a need, therefore, for governance reforms that include legislation to change the institutional and legal frameworks structuring central-local government relations. In particular, laws that limit the authority and power of local governments should be revised and updated. More appropriate laws are needed to enable local governments to levy more taxes and borrow funds from domestic and foreign sources, and to operate and manage public utilities that deliver basic services. The governance and managerial capabilities of local officials should be developed through institution-building, and educational and training programmes focused on management of local basic services.

### ***Subsidiarity***

Coordination of actions among different levels of government needs to be based on subsidiarity, particularly in the choice of management systems for basic services. *Subsidiarity, however, requires that local governments should have adequate finan-*

*cial, managerial and technical-professional resources to enable them to deliver basic public services.* Local governments should be granted the authority and power to raise local resources to meet the principle that authority be commensurate with responsibility, as well as the availability of resources.

### ***Comprehensive development planning***

In many Asia Pacific countries, the fragmentation of governance institutions contributes to ineffective and inefficient delivery of local basic services. *A number of innovative planning approaches clearly reveal that positive outcomes can be achieved by collaborative programmes that formulate and adopt area-wide planning (such as those that encompass river basin areas).* Water and sewerage schemes, transportation networks and disposal of solid waste through commonly-owned landfill, incineration, waste-to-energy systems or other facilities could all benefit

### ***Special purpose authorities (SPAs)***

*SPAs are proving to be effective and efficient instruments for delivering local basic services and need to be encouraged in Asia Pacific.* With their autonomous status, SPAs avoid such problems as bureaucratization, fragmentation, overstaffing and political interference. When established as special purpose vehicles in PPP schemes, they are effective mechanisms for managing local basic services.

### **Financing of basic services**

*Many local governments that lack local revenue sources necessary to meet normal operating expenses and large infrastructure investments can adopt measures to enable them to meet basic local service needs. For example, they can coordinate tax rules and regulations to achieve mutually acceptable agreements on property assessments and common tax rates to avoid unnecessary competition in attracting investors. They can implement joint tax collection schemes to achieve efficiency, and pool resources to increase their credit ratings, enabling them to borrow for large infrastructure projects. They can also monetize the value of public land to finance basic services.*

### **Changing management models**

In many Asia Pacific countries, the main challenge facing local governments is how to provide local basic services through traditional departments or units. In more technologically advanced countries in the region, such as Japan, Korea, Australia and New Zealand, *local governments are starting to shift from the role of “service provider” to that of “service buyer.”* In these countries, other service delivery options are available, such as private enterprises, public utilities, and consortia of domestic and international service providers. Local governments are

developing new approaches and skills such as cost-benefit analysis, profitability analysis, environmental impact and social impact assessment in order to work effectively with these service providers. Some cities have even reached a point where, after long experience with private service providers, they are considering “re-municipalization” of basic services.

### **Citizen participation and accountability**

*Local basic services need to be delivered with special attention to meeting the needs of the poor and marginalized groups.* The active participation of all segments of society is a key element in service provision. In many countries, consultation with citizens has proven useful, both in eliciting inputs during programme formulation and in gathering feedback information from the public about actual performance. The setting up of “one stop” service centres by local governments to gather information from service users and respond to complaints and suggestions should be encouraged. Experience in the Asia Pacific region also shows that the efforts of NGOs and CBOs need to be integrated into municipal service delivery systems for hard to reach communities of the urban poor.



**Local basic services need to be delivered with special attention to meeting the needs of the poor and marginalized groups.**

## RECOMMENDATIONS BY SECTOR

### ***Water and sewerage***

- In the Asia Pacific region, there is a need for integrated water schemes based on a proper understanding of the “natural water cycle” that illustrate the holistic nature of water provision, especially as these cover whole river basins and other ecological zones.
- More attention should be given to regulatory measures such as the setting of appropriate water tariffs, proper metering, efficient collection methods, and ways and means of reducing non-revenue water rates.
- Technological innovations should be used by local water companies to improve efficiency (such as accurate, reliable meters, leak detection machines, and GIS to pinpoint water problems).
- Local governments should consider the advantages and disadvantages of small-scale water provision projects (mini-hydros) compared to the use of large metropolitan-wide water and sewerage networks, especially in small and medium-sized cities that may lack the financial and managerial resources for large schemes.

### ***Sanitation***

- A number of local governments in the region provide sanitation separately from water systems. A clear understanding of the advantages and disadvantages of this approach should be applied in the

design and management of integrated sanitation programmes.

- Data on “improved sanitation” in country reports (usually based on Demographic and Health Surveys) is often vaguely defined and unreliable. It should be corrected by more accurate data provided by local governments that usually know the situation first hand.
- People living in slum communities often undertake voluntary self-help efforts to set up communal toilets and other sanitation schemes. These should be properly acknowledged and, wherever possible, integrated into formal municipal programmes.
- The private sector plays an important role in the sanitation services in many cities, as in the construction, emptying and maintenance of septic tanks. Local governments need to adopt clear policies and procedures for these providers, and integrate them into formal governmental sanitation programmes.

### ***Transportation***

- Private sector contributions to transportation services should be closely aligned with the functions performed by local governments, especially those concerned with setting transport routes, regulating traffic, ensuring safety, etc.
- Local governments should be provided with the financial and technical resources to build more innovative transportation

systems (like light and heavy rail and bus rapid transit systems). Equitable charges should make such systems accessible to low income people.

- Many cities continue to rely on traditional para-transit modes like pedal-powered tricycles, motorized three-wheelers, etc., which often meet the mobility needs of low income people, but add to pollution, congestion and high accident rates. Whenever possible, these para-transit modes should be integrated into a holistic transport system – for example, as feeders to rail-based transit station networks.
- Schemes should be developed to lessen the environmental effects of transport systems based on the private automobile, motorcycles and other self-driven vehicles, such as “congestion pricing” where there are charges for taking their cars into the city centre, or various rationing or auction methods.

### **Energy**

- Innovations to shift cities and towns from their dependence on coal and other fossil fuels should be supported. The shift to compressed natural gas (CNG) and liquefied petroleum gas (LPG) for two and three wheeler vehicles in Indian cities has significantly reduced air pollution. Electric jeeps and tricycles are being tried in Philippine cities, as are experiments in public electric vehicle plug in stations in Guangzhou and other Chi-

nese cities. Local governments should also encourage walking and the use of non-motorized transport by building safe bicycle lanes and setting up bike share programmes.

- Local governments, with the support of higher levels of government and domestic and international financial institutions, should consider availing themselves of private sector and PPP financing and management in provision of energy, particularly when energy generation and distribution takes on a monopolistic status.
- Local governments should take advantage of the synergies arising from inter-sectoral linkages that exist among basic services such as energy generation, water provision, and solid waste management in the design of local basic services.

### **Solid waste management**

- Local governments should encourage private sector participation in solid waste management in carrying out activities such as collection, sorting, recovery, re-use, recycling, composting, and disposal of solid waste (as in landfills, incineration, waste to energy systems).
- The role of community groups should be integrated into formal municipal service activities. Many examples of innovative voluntary activities carried out by CBOs such as household-level sorting of by

types of waste, recovery of useful materials, recycling and selling of valuable waste, composting of organic waste, etc. have reduced the load that goes into landfills and contributed to the income of urban poor people.

- Local governments should devise systems for setting tariff rates and collecting user-charges that reflect the true costs of collecting and disposing of solid waste.

#### ***Slum improvement***

- Data on slums in Asia Pacific countries are from central government sources, based on country reports to the UN on the MDGs and demographic and health surveys. More accurate and timely local information should be collected and disseminated by local governments.
- The self-help efforts of slum dwellers should be integrated into the formal institutional programmes of local governments; these schemes often provide much more in the way of shelter and services than local governments do.
- Shelter provision should be assumed as an important function by local governments because slums continue to be

a serious problem in many Asia Pacific cities.

- Reports on how Asia Pacific countries are faring in achieving the slum targets tend to be positive, but subject to questions. More accurate and timely data on the number of slum dwellers and the provision of basic services in slum areas should be provided by local governments.

#### ***Disaster preparedness***

- Local governments should take a more active role in disaster preparedness, preparing and training residents to cope with disasters for at least 72 hours before outside help can arrive. There should be information campaigns on potential situations and practice drills on what to do in case of earthquakes, floods, fires, volcanic eruptions and other disasters.
- Disaster preparedness for people living in vulnerable areas such as tidal basins, the edges of rivers and creeks steep hillsides subject to erosion and mudslides should be emphasized.
- The inadequate allocations for disaster preparedness in most local budgets should be increased.



**// There are already nearly a billion slum-dwellers who have limited or no access to many basic services. A failure to address the urban access issue will have serious repercussions for human wellbeing, environmental sustainability, and economic development.**

Dr. Kadir Topbaş  
Mayor of Istanbul  
President of UCLG



КРУАЖ

Новый Год в ресторане «Круа́ж»



# IV. EURASIA



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Photo: Alberto Carrasco Casado

## 4.1 Introduction

After the breakup of the Soviet Union, the Eurasian countries under review in this chapter (Armenia, Georgia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Ukraine and Uzbekistan) were left with sufficiently developed water supply and sanitation systems, district heat supply and urban public transport. In general, the proportion of the population with access to basic services was almost comparable to that in high income countries. Infrastructure created in the Soviet period was characterized by high capital intensity and energy consumption, but service delivery was reliable.

At that time, the major shortcoming stemmed from the fact that infrastructure facilities were designed with unreasonably high levels of consumption of water and thermal energy in mind. This has resulted in a situation in which public utility companies of the Eurasian countries have been faced with significant overheads and other costs related to maintenance of a redundant infrastructure that are not covered by user tariffs. In contrast to other services, little attention was paid during Soviet rule to the management of solid domestic



**The degradation of the utility infrastructure in most countries has been halted and to some extent reversed, although basic service provision in most cases have not reached the levels of the Soviet period.**





**Local authorities lack the financial resources and autonomy to achieve the required level of investment and to implement services, and they continue to depend on transfers from the central budget.**

<sup>1</sup> The information for this overview of the situation was drawn from a number of open sources, including the Internet. These were supplemented with the results of a questionnaires disseminated among representatives from a number of cities of the all countries of the Eurasia region. In total, 41 questionnaires were completed, 25 of them by mayors. The Secretariat of Euro-Asian section of UCLG provided invaluable assistance in disseminating the questionnaires. A draft of the chapter was subsequently discussed and commented on by participants of the UCLG Gold III workshop held in Saint Petersburg (Russia) on April 22, 2013.

waste. Solid waste infrastructure facilities were financed from budget investments, while operating costs were mostly covered from high tariffs set for industrial users on the basis of cross-subsidies.

The break-up of the Union of Soviet Socialist Republics (USSR) triggered numerous structural changes in the public sector in the countries of the Eurasia region. The absence of any renewal of fixed assets caused a deterioration of the quality of basic services as well as a rise in the accident rate in utility facilities and networks. In many cities, water supply services became unsustainable. Facilities for waste water treatment and solid waste disposal stopped working. District heat services were discontinued in many cities of the Caucasus and Central Asia, including capital cities.

Over the past decade, the degradation of the utility infrastructure in most countries has been halted and to some extent reversed, although basic service provision in most cases have not reached the levels of the Soviet period. For example, the capitals of Armenia (Yerevan) and Georgia (Tbilisi) are currently experiencing enormous difficulties with regard to heat supply. All countries of the region, since the collapse of the USSR, have been marked by a decline in passenger traffic and a change in its structure due to the reduction of urban ground electric transportation (trams and trolley buses) and rapid growth of private transportation.

In most countries of Eurasia, local governance bodies assumed the responsibility for the provision of core public services. In many cases, this has resulted in excessive fragmentation of service providers. This has meant a number of problems. The scale of activity has been inefficient

and there have been difficulties obtaining finance because most municipalities lack the necessary organizational and financial capacities to manage communal infrastructure. Some countries made an attempt to scale up these services in order to attract private business into the sector (e.g. Armenia and Moldova).

Meanwhile, water and heat supplies in Belarus and Tajikistan are still highly centralized. Trends toward the centralization of public service provision are recorded in most countries, despite declarations of support for the principle of decentralization. Experiences in the region demonstrate that the transfer of the responsibility for the provision of basic services to local level authorities is a necessary condition for the successful decentralization of the public sector, but not a sufficient one.

Countries in the region now face a serious problem. In virtually all these countries, local authorities lack the financial resources and autonomy to achieve the required level of investment and to implement services, and they continue to depend on transfers from the central budget. Over the past decade, almost every country in the Eurasia region has succeeded in stopping the decline in the performance of basic services. Nevertheless, fundamental renovation of infrastructure facilities, the introduction of innovative technologies and environmental measures, and enhanced energy efficiency remain the issues of primary importance. These measures require huge financial resources. Given the artificially low tariffs charged for basic services in most Eurasian states, and the fact that institutional reforms in the basic services sector have not been completed, these resources are not forthcoming.<sup>1</sup>



## 4.2 Institutional and legal frameworks

The countries of the Eurasia region are characterized by different levels of urbanization. In some countries, most of the population lives in urban areas (in Armenia and Ukraine, almost two-thirds of the population; in Russia and Belarus, almost three-quarters). However, there are also countries in the region that remain predominantly rural (in Tajikistan, just over a quarter of the population lives in urban settlements, while in Kyrgyzstan and Uzbekistan a little more than one third of the population is urbanized). The structure of urban population also varies: while in Armenia, Georgia, Moldova and Kyrgyzstan, about half of the urban population lives in the capital cities of these countries, in Tajikistan and Uzbekistan the urban population is concentrated in small-size urban settlements. In Russia, Ukraine and Belarus the urban population is fairly evenly distributed (Table 4.1).

Within the urban settlements of the Eurasian countries, there are also differences in the way local authorities

**Table 4.1 Distribution of urban population by type of urban settlements**

| Countries  | Share of urban population living in urban settlements with the specified number of inhabitants, in thousands |                |                  |                |
|------------|--|----------------|------------------|----------------|
|            | Less than 50   | From 50 to 250 | From 250 to 1000 | More than 1000 |
| TOTAL      | 26.8%  | 24.1%          | 25.3%            | 23.8%          |
| Armenia    | 28.6%  | 5.3%           | 0.0%             | 54.1%          |
| Belarus    | 22.5%  | 9.3%           | 26.4%            | 26.2%          |
| Georgia    | 27.0%  | 5.5%           | 0.0%             | 49.0%          |
| Kazakhstan | 15.9%  | 11.6%          | 33.7%            | 16.2%          |
| Kyrgyzstan | 28.5%  | 13.9%          | 45.1%            | 0.0%           |
| Moldova    | 40.9%  | 0.0%           | 49.0%            | 0.0%           |
| Russia     | 22.8%  | 10.5%          | 26.5%            | 26.8%          |
| Tajikistan | 44.3%  | 11.2%          | 36.3%            | 0.0%           |
| Uzbekistan | 55.0%  | 7.3%           | 9.6%             | 14.8%          |
| Ukraine    | 29.2%  | 12.5%          | 26.7%            | 19.9%          |

<sup>2</sup> The law of the Republic of Kazakhstan “On local public administration and self-government in the Republic of Kazakhstan (dated January 23, 2001 № 148-II), the law of the Republic of Uzbekistan “On the government of places” (dated September 2, 1993 № 913-XII), constitutional law of the Republic of Tajikistan “About local authorities” (dated May 17, 2004, № 28).

<sup>3</sup> The law “On Local Government and Self-Governance in the Republic of Belarus” (dated January 4, 2010, № 108-3).

<sup>4</sup> The Federal Law of the Russian Federation “On General Principles of Local Government in the Russian Federation” (dated October 6, 2003, № 131-FZ), the law of Ukraine “On local self-government in Ukraine” (dated May 21, 1997, № 280/97-BP), the law of the Republic of Moldova “On local public authority” (dated December 28, 2006, № 436-XVI), the law of the Republic of Armenia “On local self-government” (dated June 5, 2002, № ZR-337).

Source: *The Interstate Statistical Committee of the Commonwealth of Independent States* (<http://www.cisstat.org>). NB: Uzbekistan data do not take into account changes in the administrative-territorial structure of residential settlements in 2009.

are organized. In Kazakhstan, Tajikistan and Uzbekistan local governance institutions (with publicly elected representative bodies) are typically combined with institutions of local public administration (with appointed executive bodies).<sup>2</sup> In Belarus, the three-tier system of local governance has a top-down structure where lower-level local self-governance bodies are subordinate to higher level local bodies.<sup>3</sup> In Russia, Ukraine, Moldova and Armenia, local governments develop more independently from national public authorities.<sup>4</sup> Even the terms legally used to refer to local governments differ. In Russia, Ukraine, Armenia, Georgia and Kyrgyzstan they are “local self-government bodies”; in Moldova, “local public administration bodies”. In Kazakhstan and Tajikistan, the term is “local bodies of public administration”; in Uzbekistan,

“bodies of public administration at local level”. In Belarus, the term “local government” is used.

This chapter will use the term “local government” to imply every form of organization of local governance in the countries under review.

In most countries of the Eurasia region, local governments are responsible for the provision of water supply and sanitation (with the exception of Armenia and Georgia), district heat supply (with the exception of Moldova and Tajikistan), solid waste management, and intra-urban passenger transportation services. A survey of representatives of cities in Russia, Armenia, Georgia, Ukraine, Moldova, Kyrgyzstan, Kazakhstan, Tajikistan and Uzbekistan revealed responsibility for basic services falls to municipal governments in 88% of cases (Table 4.2). Central

**Table 4.2 Local authorities' responsibility for the provision of basic services in the Eurasia region**

| Countries  | Water supply and sanitation | Heating | Solid waste collecting and transportation | Passenger transport |
|------------|-----------------------------|---------|---|---------------------|
| Armenia    |                             | X       | X   | X                   |
| Belarus    | X                           | X       | X   | X                   |
| Georgia    |                             | X       | X   | X                   |
| Kazakhstan | X                           | X       | X   | X                   |
| Kyrgyzstan | X                           | X       | X   | X                   |
| Moldova    | X                           |         | X   | X                   |
| Russia     | X                           | X       | X   | X                   |
| Tajikistan | X                           |         | X   | X                   |
| Uzbekistan | X                           | X       | X   | X                   |
| Ukraine    | X                           | X       | X   | X                   |

Source: Review of country laws carried out by the authors



**Many local authorities have had to assume the responsibility for the provision of basic services without the relevant authority or resources required to do so successfully.**

and regional governments play a minor role. Despite these local responsibilities, in most countries almost all regulation of basic services is the domain of central government (with the exception of the haulage and disposal of solid waste and passenger transportation services in some countries). State or regional public authorities, and especially established national regulatory bodies,<sup>5</sup> tackle the development of tariff policies for basic services.

There have certainly been decentralization reforms in most countries of the region, as well as the development of local self-governance. However, decentralization processes are frequently inspired by the wish to get rid of excessive centralization inherited from Soviet times, rather than by an understanding of the advantages of a proper distribution of authority between various levels of power. As a result, many local authorities have had to assume the responsibility for the provision of basic services without the relevant authority or resources required to do so successfully.

In all countries of Eurasia there is an urgent need for the elaboration of policy on basic services development at the national levels as well as attention to competency at different levels of power on basic services management (multi-level governance).

#### **Water supply and sanitation**

As indicated in Table 4.2, in most countries in the region, local authorities are responsible for water and sanitation. Armenia is one of the exceptions. According to Armenian legislation, the responsibility for water supply and sanitation rests with authorities at both the national and local levels. In practice, however, local governments have delegated this function to the national level. Municipalities do still cooperate with the relevant public authorities on these issues. The tariff policy for water supply and sanitation is implemented by the Committee for Regulation of Public Services.

In Georgia, the other exception, the responsibility for the provision of water supply and

<sup>5</sup> National regulatory bodies were established in Armenia (Public Services Regulatory Commission), Georgia (Energy Production and Water Supply Regulatory Commission) and Ukraine (the National Commission for the State Regulation in the Sector of Utility Services) as independent bodies subordinate only to parliament and the president.



sanitation services falls to state authorities.<sup>6</sup> The Ministry of Regional Development and Infrastructure is responsible for the development and implementation of state policy in the sector of water supply, and the Regional Development Agency, under this ministry, is responsible for the implementation of reforms in the water supply sector. The powers related to setting tariffs for drinking water are assigned to the National Commission for Regulation of the Energy Sector and Water Supply.

According to the legislation of Russia, Kazakhstan, Kyrgyzstan, Belarus, Ukraine, Uzbekistan and Tajikistan, local authorities are responsible for the management and provision of water supply and sanitation services, as well as for the development of local water supply and sanitation infrastructure. The tariffs in these countries are regulated, as a rule, by national or regional public authorities, with the exception of Kyrgyzstan, where urban and rural local governments also have tariff setting powers for water and sanitation services. In Ukraine, the regulation of tariffs for water supply and sanitation for settlements with more than 100,000 residents, as well for water supply and sanitation systems operating across two or more regions (oblasts), is performed by the National Commission for State Regulation in the sector of Utilities Services.<sup>7</sup>

In Russia, tariff ceilings for water and sanitation are set by the federal agency and the final tariffs are set by regional authorities. In Belarus, the tariffs for water supply and sanitation are set for the whole country by a Decree of the Council of Ministers; local governments are entitled, within the established limits, to adjust the level of state tariffs to take into account companies' actual costs. In Kazakhstan, regional governments set water and sanitation tariffs in consultation with a state body, the Agency for the Regulation of Natural Monopolies. In Tajikistan, the responsibility for designing and approving water tariffs lies belongs to an

authorized state body established to regulate the drinking water supply,<sup>8</sup> which body designs tariffs for its subordinate enterprises. These tariffs are subject to approval by the Anti-Monopoly Agency. According to the laws of Uzbekistan, prices are regulated by the Ministry of Finance, the finance departments of local oblast governments, and the city of Tashkent on the instructions of the Ministry.

### **Heat supply**

In Armenia, the tariff policy in the heat supply sector is implemented by the Commission for Public Services Regulation for boiler houses with capacities over 5.8 MW. Smaller district heating systems are exempted from state regulation so that they can operate in a competitive market on a commercial basis. This policy has resulted in the construction of new autonomous heating systems, usually run on natural gas with a nominal capacity ranging from 15 to 100 or to 200 kW, enough to meet the needs of a block of several houses or flats.<sup>9</sup>

In Georgia, the powers related to regulation of district heating systems are assigned to the National Commission for Energy Sector and Water Supply Regulation. In Russia, Kazakhstan, Belarus, Uzbekistan and Ukraine, local authorities are responsible for the provision of heat supply services; however, tariffs in the heating sector are regulated by central government authorities and regulatory bodies (with the exception of Ukraine, where regulation of tariffs in heat supply sector is also performed by the National Commission for Regulation of Communal Services). In Moldova and Tajikistan, the responsibility for the heat supply is held at national level. A positive example is Kyrgyzstan, where state powers related to heat supply provision and tariffs have been delegated to local governments since 2011, in accordance with the law on local self-government.<sup>10</sup>

<sup>6</sup> In accordance with amendments made in 2007 to the Law of Georgia "On Local Governments" the local governments were relieved of responsibility for the provision of water supply and sanitation services.

<sup>7</sup> The Law of Ukraine "On state regulation in the in the Sector of Utility Services" (dated July 9, 2010 № 2479-VI), the Presidential Decree of Ukraine "On the National commission for the state regulation in the Sector of Utility Services" (dated November 23, 2001, № 1073/2011).

<sup>8</sup> In accordance with the Resolution by the Government of the Republic of Tajikistan, № 679, of December 31, 2011, "On Approving the Procedure for State Control and Oversight over Drinking Water Supply", the authorized state body in the area of drinking water supply is the State Unitary Enterprise, Khochagii Manziliyu Kommunal.

<sup>9</sup> For more information see: Lukosevicius and Werring (2011).

<sup>10</sup> As per Article 31 of Law of the Republic of Kyrgyzstan №101 dated July 15, 2011 "On Local Self – Government", local authorities shall address issues related to approval of tariffs for the use of cold water, sewerage and heat supply as well as for collection, removal and disposal of solid domestic waste.



### **Urban transportation**

The provision of public transport services within the boundaries of urban settlements is a local responsibility. All issues relating to the quality of services, issuing of permits, and financing of city transport development are tackled at local level. As a rule, central or regional authorities do not interfere with the handling of city transport services, except for two aspects: putting a ceiling on maximum fares, and implementing mandates with regard to the licensing of individual types of passenger transportation (city, rural and inter-city transportation). For example, in Russia, regional authorities set the maximum tariffs for urban public transport, and the final tariff is established by either local authorities, or the service provider (in the case of commercial taxis). In Tajikistan, tariffs for public transport services in the cities of Dushanbe and Khudjand are set by local authorities in agreement with the central government. In Kyrgyzstan, tariffs for urban public transportation are set by local authorities, including tariffs for commercial taxis. In Armenia and Kazakhstan, an *ad hoc* state-authorized body addresses most issues relating to the development of the transport sector and sets the rules for its functioning: it designs regulations and technical standards and ensures the functioning of the unified system of passenger transportation through improved coordination.

### **Solid waste management**

Throughout the region, the responsibility for the collection, transportation, disposal, and utilization of solid waste lies with local governments. The legislation of some countries (Russia, Ukraine and Uzbekistan) specifies that local authorities determine the procedure for collection of waste, including the procedure for separating the waste into different types (food wastes, textile, paper, etc.). The countries vary in their regulation of solid waste management. In Kyrgyzstan, local governments set tariffs for solid waste transportation and disposal, while in Belarus this is a responsibility of regional and central governments. In Ukraine, tariffs for solid domestic waste removal are set by local governments, and tariffs for waste dumping and recycling by the National Commission for State Regulation in the Sector of Utility Services. In Uzbekistan, tariffs for solid domestic waste removal are set by local authorities. In Russia and Armenia, the tariffs for transportation of solid waste are unregulated, which is not the case with disposal tariffs, which are regulated by regional governments. In Kazakhstan, there is no regulation with regard to solid waste transportation or disposal tariffs. However, service providers are required to notify a state body of any planned increase in tariffs.



**Local authorities are responsible for water and sanitation. The tariffs as a rule are regulated by national or regional public authorities.**



Photo: Olga Kruglova

## 4.3

### Access to services: accounting for the needs of the population

In the 1990s, after the breakup of the Soviet Union, the countries of the Eurasia region witnessed a general decline in access to basic services, and a downward trend in their quality. In the past decade, the situation, as noted, has stabilized and shows some signs of improvement.

#### *Water supply and sanitation*

Access to water supply and sanitation services varies greatly across the region. More than half of the population living in Russia, Belarus, Armenia, Kazakhstan, Uzbekistan, and Ukraine has access to these services.<sup>11</sup> Russia has the highest proportion of the population with access to a piped water supply in the region, with 100% in cities and 96% in small towns with less 10,000 residents. However, even in Russia, only 31% of rural settlements have access to piped water. Piped sanitation services are provided to 100% of cities, 82% of smaller urban settlements and 6% of rural settlements.<sup>12</sup>

In Ukraine, despite the fact that the proportion of the population covered by the piped water supply is relatively high, a number of settlements – nearly 5% of the population – do not have access to a 24-hour-a-day water supply. In Georgia, most settlements suffer from intermittent water supplies; and

in towns and rural settlements, only 30% of the population has access to piped gravity-flowing water supply networks.<sup>13</sup> In areas where pump stations are used, the water is supplied only 3-4 hours a day. The rest of the population in those settlements uses other water sources, including wells, boreholes with manually operated pumps, and protected springs. More than half of the population in Kyrgyzstan and Uzbekistan lack access to reliable sources of drinking water, and a major part of the urban and rural population gets water according to a fixed schedule (whether delivered or supplied via pipelines). Inadequate access to drinking water is also a significant problem in Moldova and Tajikistan, especially for poor and rural populations.

The population of the Central Asian region (Kyrgyzstan, Tajikistan and Uzbekistan) quite frequently relies on wells and natural water sources. Contamination of open water basins is widespread, and results in considerable contamination of sub-soil water, including the water in wells. The quality of the treatment of water from wells is very

poor and a high level of water contamination contributes to the high incidence of disease in these countries and an increase in mortality rates, particularly among young children. Access to improved sanitation (sewerage systems or clean toilets with either with slab-covered pit latrines or connections to septic tanks) in Central Asia is also poor.<sup>14</sup>

In most countries, the level and quality of water supply and sanitation coverage has been increasing over the past decade, although in Kyrgyzstan, there has been a decline of over 20% in the provision of these services in urban areas (Tables 4.3 and 4.4) as a consequence of political events in the past decade, specifically the overthrow of governments as a result of numerous revolutions. In most countries, the quality of water supplied through the water pipelines, especially in small settlements, does not meet proper standards for drinking water. Sanitation and waste water treatment systems are underdeveloped, and most waste water is dumped, untreated, into natural water basins (Table 4.5).



**In most countries, the level and quality of water supply and sanitation coverage has been increasing over the past decade.**

**Table 4.3 Coverage of the urban housing stock with water supply services**

| Country    | 2000  | 2005  | 2010  | Changes for the period 2000-2010, percentage points |
|------------|-------|-------|-------|---|
| Armenia    | n/a   | 96.9% | 99.0% | n/a   |
| Belarus    | 84.8% | 86.5% | 87.6% | +2.8%   |
| Georgia    | n/a   | n/a   | n/a   | n/a   |
| Kazakhstan | 51.0% | 78.3% | 82.7% | +31.7%  |
| Kyrgyzstan | 78.4% | 76.5% | 54.8% | -23.6%  |
| Moldova    | 77.0% | 79.0% | 82.8% | +5.8%   |
| Russia     | 73.4% | 75.6% | 89.3% | +15.9%  |
| Tajikistan | 24.2% | 31.0% | 71.0% | +46.8%  |
| Uzbekistan | 79.8% | 86.3% | 91.1% | +11.3%  |
| Ukraine    | 75.3% | 76.6% | 77.9% | +2.6%   |

Source: The Interstate Statistical Committee of the Commonwealth of Independent States

<sup>11</sup> OECD (2011a).

<sup>12</sup> According to the Federal Law of the Russian Federation "On General Principles of Local Government in the Russian Federation", there are five types of municipalities in the Russian Federation: urban or rural settlement; municipal district; urban district or intra-city territory of a city with federal status. A rural settlement is one or several rural settlements integrated in the same territory (townships; rural communities; Cossack villages; villages; farm yards; kishlaks; auls and other rural settlements). An urban settlement is a town or a township.

<sup>13</sup> A water transportation system where water is supplied from elevated natural sources.

<sup>14</sup> For more information, see: OECD (2011a) p. 53-55.

**Table 4.4 Coverage of the urban housing stock with sanitation services**

| Country    | 2000  | 2005  | 2010  | Changes for the period 2000-2010,<br>percentage points |
|------------|-------|-------|-------|--|
| Armenia    | n/a   | 88.4% | 96.1% | n/a  |
| Belarus    | 83.9% | 85.7% | 86.8% | +2.9%  |
| Georgia    | n/a   | n/a   | n/a   | n/a  |
| Kazakhstan | n/a   | 69.2% | 73.5% | n/a  |
| Kyrgyzstan | 70.7% | 70.4% | 50.6% | -20.1%   |
| Moldova    | 75.9% | 77.9% | 82.7% | 6.8%   |
| Russia     | 69.0% | 71.5% | 87.3% | 18.3%  |
| Tajikistan | 22.3% | 26.2% | 66.7% | 44.4%  |
| Uzbekistan | 55.8% | 54.2% | 49.0% | -6.8%  |
| Ukraine    | 73.7% | 75.4% | 76.7% | 3.0%   |

Source: The Interstate Statistical Committee of the Commonwealth of Independent States

**Table 4.5 Under-treated waste water and untreated waste water as a proportion of total waste water dumped in natural water reservoirs**

|                   | 1985 | 1992 | 1996 | 2001 | 2006 | 2011 |
|-------------------|------|------|------|------|------|------|
| <b>Armenia</b>    | 33%  | 33%  | 39%  | 67%  | 73%  | 58%  |
| <b>Belarus</b>    | 11%  | 6%   | 9%   | 10%  | 10%  | 12%  |
| <b>Georgia</b>    | 55%  | 17%  | 61%  | 58%  | -    | -    |
| <b>Kazakhstan</b> | 46%  | 5%   | 6%   | 10%  | 6%   | 7%   |
| <b>Kyrgyzstan</b> | 6%   | 2%   | 3%   | 3%   | 4%   | 16%  |
| <b>Moldova</b>    | 16%  | 3%   | 5%   | 9%   | 10%  | 10%  |
| <b>Russia</b>     | 46%  | 38%  | 47%  | 50%  | 55%  | 57%  |
| <b>Tajikistan</b> | 24%  | -    | -    | -    | -    | -    |
| <b>Uzbekistan</b> | 32%  | -    | -    | -    | -    | -    |
| <b>Ukraine</b>    | 22%  | 23%  | 29%  | 39%  | 48%  | 55%  |

Source: The Interstate Statistical Committee of the Commonwealth of Independent States

### Millennium Development Goals

All countries of the Eurasian region have signed The United Nations Millennium Declaration. One of its Goals – Goal 7 – is to ensure environmental sustainability. This Goal includes Target 10 – “To reduce by half the proportion of people without sustainable access to safe drinking water and sustainable sanitation compared to base-line year – 1990.” In some countries of the Eurasian region, the access of the urban population to better quality drinking water has significantly improved since the mid-1990s. Although the core trends in these countries are more or less similar, the condition of their water supply systems and the impact on the environment and public health vary widely. While, in some major cities in the wealthier countries of the region, there have been positive changes, the situation in small and medium size cities and rural areas remains critical, with water supply systems frequently in a state of total collapse. Since the early 1990s, the situation has significantly improved in Armenia and Georgia, but has deteriorated

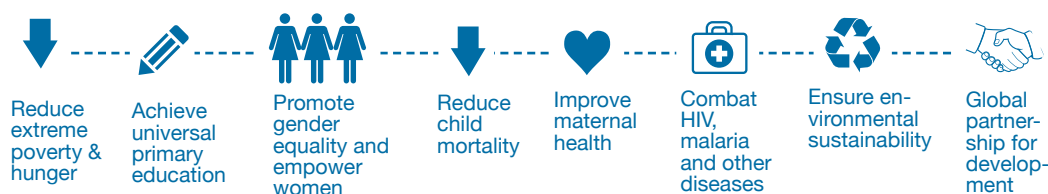
ress in providing access to better quality drinking water for the rural population, a lot remains to be done, particularly in the rural regions of Tajikistan and Kyrgyzstan.

Despite having one of the best water reservoirs in Central Asia, Kyrgyzstan has not yet adequately addressed the issue of providing access to safe drinking water. The process of implementing the MDG in Kyrgyzstan is facing a number of challenges. Provision of drinking water is the key objective of the *Taza Suu* programme, financed by a range of international organizations and the Government of the Republic of Kyrgyzstan. The Asian Development Bank (ADB) has disbursed a loan for the “Infrastructure Services Provision at the Settlement Level” project worth USD 36 million. The project involves the restoration and construction of water pipelines in 730 villages and 7 cities of Chuiskaya, Oshskaya, Dzhahalal-Abadskaya and Batkenskaya regions. Within a shared financing scheme, the Government of the Republic has allocated USD 9 million. A similar project, Rural Water Supply and Sanitation, worth USD 24.5



**The situation in small and medium size cities and rural areas remains critical, with water supply systems frequently in a state of total collapse.**

### Goals that have been met by Eurasian countries



in Kazakhstan, Moldova and Uzbekistan. In spite of the efforts made over recent years, data for the sector confirm the on-going trend of infrastructure degradation and deterioration in the quality of services. To attain the Millennium Development Goal (MDG) major additional efforts are required, especially with regard to improving the access to improved sanitation. Although some states have made substantial prog-

million, financed by the World Bank, also pursues the key goal of the restoration and construction of rural water pipelines in 270 villages in the Issyk-Kulskaya, Narynskaya and Talasskaya oblasts. Taking into account the contribution of the Kyrgyzstan Government, almost USD 70 million has been earmarked for the improvement of the safe water supply to the local population. The projects of the ADB relied on a





**In Russia more than 40% of the population has access to water of inadequate quality.**

population-centred approach – they targeted the rural communities directly affected, which assumed the responsibility and were involved in decision making at all stages of the projects' implementation. However, the initial plans have not been implemented in full because of cost increases in the “rural water supply per capita” component, from USD 20 to USD 80. The ADB and World Bank projects will cover 300 villages in the Chuiskaya, Oshskaya, Dzhahal-Abadskaya and Batkenskaya oblasts and 200 villages in the Issyk-Kulskaya, Narynskaya and Talasskaya oblasts. It is expected that Kyrgyzstan will achieve the MDG by 2015, despite recent political events.

#### Water supply and improved quality water programmes in Eurasian countries

|  |                   |   |
|--|-------------------|---|
|  | <b>Uzbekistan</b> | 2003 programme: water supply to 66.6% of the rural population                         |
|  | <b>Kyrgyzstan</b> | Asian Development Bank programme: Water supply to 50% of the total population by 2015 |
|  | <b>Kazakhstan</b> | Drinking Water programme  |
|  | <b>Belarus</b>    | Clear Water programme 2011-2015   |
|  | <b>Ukraine</b>    | Drinking Water in Ukraine for 2011-2020   |
|  | <b>Armenia</b>    | Water supply to 86% of the total population   |

According to the Ministry of Health of the Republic of Tajikistan, access to drinking water from piped water systems is available to 58.1% of the total population (95.3% of the residents of large cities and townships, and 32.1% of rural residents). In general, no more than 23% of the population of the Republic is covered by sanitation services. In cities, almost every second resident has access to sanitation; in rural areas, this figure does not exceed 10%. Only 60% of the population of Tajikistan has access to piped water, whereas 40% draw water directly

from rivers, canals, small-size irrigation systems and other water sources that do not meet sanitary requirements. In the city of Dushanbe they are implementing investment projects financed by the World Bank, Islamic Development Bank and the Government of Japan, aimed at renovating the water pipeline network. Expenditures required for the attainment of MDG 7 in Tajikistan are estimated at almost USD 1 billion. The anticipated investment for the construction of new water supply systems stands at USD 19-26 per resident. In general, the financing gap amounts to USD 595 million, or 60.7% of the needed financing, which means that without foreign investments the country will not be able to attain the MDGs.

To attain the MDGs, Uzbekistan will need to improve the technical condition of operating water pipelines, develop and implement measures aimed at accelerating the shift to water saving technologies and manage water resources more sustainably. This requires metering for water consumption and the automation of technological processes. Even with the population growing at 50-60 thousand people per year, the coverage of piped water to the rural population increased to 66.6% in 2005. This was thanks to a 2003 programme on improving the supply of drinking water and natural gas to rural settlements.

Kazakhstan is one of the countries in the region that suffers the most acute water deficits. The problem of providing access to a safe water supply and waste management is of special importance for public health. Today, at least 10% of households lack access to piped water and nearly 25% to sanitation. Within the framework of the state sectoral programme, Drinking Water,<sup>15</sup> more than 1,200 kilometres of water pipelines have been built, renovated or subjected to capital repairs. It improved the water supply to 645 residential settlements and almost 450 thousand people. With international support, Kazakhstan will be able to

<sup>15</sup> Sectoral Programme “Drinking Water for 2002-2010” (approved by the Resolution of the Government of the Republic of Kazakhstan № 93 dated January 23, 2002).

meet the goal with regard to water supply and sanitation, which will significantly facilitate the attainment of the remaining MDGs.

In Russia, despite considerable progress in providing water services, the quality of the drinking water is still unsatisfactory in many regions, mainly due to the discharge of untreated wastewater in surface water reservoirs. More than 40% of the population has access to water of inadequate quality. In 2009, the Ministry of Health and Social Development of the Russian Federation estimated that 37% of surface sources of drinking water and 16.9% of underground sources failed to meet the state sanitary norms and standards in the Russian Federation as a whole. Over 32% of surface sources of drinking water have no sanitary protection zones.

In Belarus, the share of population with access to drinking water is relatively high. However, the quality of drinking water, in particular in rural areas, does not always meet sanitary standards. The water supply for domestic and agricultural use comes mainly from underground sources and contains a high concentration of iron. This water needs to be treated in special stations for it to be safe to use. Belarus has been developing and implementing a five-year state programme (2011-2015) on water supply and sanitation called “Clear Water”, aimed at providing a continuous supply of quality drinking water to the population and improving water supply and sanitation management methods. The programme aims to complete the construction of stations for elimination of iron in the water supply to cities and district centres, provide assured quality water supply to rural residents of agro-townships and address the problem of clear water supply in all residential settlements.

In Ukraine, the population in general has fair access to drinking water, but nearly 15% only have access to water that does

not meet the national standards set for drinking water, or the access to water supply is based on a schedule. Current laws require the monitoring of the drinking water supply and for consumers to be informed about the quality of drinking water. According to the national law, “On Drinking Water and Drinking Water Supply,” the authority responsible for the management in this area is required to prepare and widely disseminate the National Report on the Quality of Drinking Water annually, which, among other things, should contain the information about all cases of drinking water contamination and reasons behind it. Since 2012, Ukraine has been implementing a 15.5 million Euro project, financed by the European Investment Bank, to upgrade the water supply system in the city of Nikolayev. Moreover, Ukraine has approved the national programme “Drinking Water in Ukraine, for 2011-2020.” However, the financing of this programme is unreliable and its amount is much smaller than initially envisaged.

Today, all cities and 36.5% of rural settlements in Armenia have a piped water supply. According to the “Strategic Programme on Overcoming Poverty,” the piped water supply should be provided to 86% of the total population, which requires investments to the tune of USD 400 million. The Programme envisages that, by 2012, the 24 hour coverage of piped water to the urban population will reach 98%, and to the rural population, 70%. However, the existing water supply systems are not very reliable. The anticipated investments will be used both for the extension of the water supply system, and for the enhancement of reliability of the existing systems.

At present, water supply and sanitation services in all countries of the Eurasian region are affordable. The highest expenditures on water supply and sanitation services as a proportion of household incomes are found in Moldova, at 3%.



**The countries plan to gradually increase access to the urban population by constructing thermal power plants and introducing innovative high performance technologies.**

### Heat supply

District heat supply systems,<sup>16</sup> drawing on piped steam or hot water from centralized plants, are widely used in Russia, Ukraine, Belarus, Kazakhstan, Uzbekistan and Kyrgyzstan. Over 70% of housing stock relies on these systems in Russia, over 60% in Ukraine, and above 50% in Belarus and Kazakhstan. According to national policies, the countries plan to gradually increase access to the urban population by constructing thermal power plants and introducing innovative high performance technologies. In Kyrgyzstan and Uzbekistan a relatively high proportion of population still has access to district heating, although there is a general deterioration of heat networks in these countries. Yet, in Kyrgyzstan, electricity is increasingly used for heating purposes, due to its relatively inexpensive generation by hydro-electric power plants.

Quite a different situation prevails in Armenia, Georgia, Moldova and Tajikistan, where the district heat supply systems have either collapsed, or are on the point of doing so, as a result of insufficient investment and poor

maintenance over a prolonged period. In Tajikistan, as a result of sharp deterioration in the quality of district heating along with universal access to low-cost electric power, electricity became the major source of heating, and gas and coal, if available, played only a supplementary role. Today, district heating is provided only in the centre of Dushanbe, the capital of the country. Even in Dushanbe, the Dushanbinskaya combined heat-and-power plant services the needs of less than 10% of the city population and only for 3-4 months during the winter. District heat supply systems and thermal power plants are available in five other cities of the country (Kurgan-Tube, Khudjant, Tursunzad, Kulab, Rogun), but are rarely used. Out of 181 boiler houses, only 18 actually operate near large hospitals and schools and these were inherited from the Soviet era. Two major heat generating sources, the Dushanbinskaya and Yavanskaya combined heat-and-power plants (CHPP), are in decline.<sup>17</sup> The following factors have contributed to the degradation of district heat supply: lack of investment in the heat supply systems over a prolonged period of time; unsatisfactory

**Table 4.6 Access of the urban housing stock to district heating**

| Country    | 2000  | 2005  | 2010  | Changes for the period 2000-2010, percentage points |
|------------|-------|-------|-------|---|
| Armenia    | n/a   | 3.0%  | 0.4%  | n/a   |
| Belarus    | 86.5% | 88.0% | 89.0% | 2.5%  |
| Georgia    | n/a   | n/a   | n/a   | n/a   |
| Kazakhstan | 60.0% | 61.9% | 64.6% | 4.6%  |
| Kyrgyzstan | 65.8% | 60.0% | 27.2% | - 38.6%   |
| Moldova    | 74.8% | 73.8% | 77.6% | 2.8%  |
| Russia     | 73.4% | 79.8% | 92.0% | 18.6%   |
| Tajikistan | 19.4% | 16.9% | 43.2% | 23.8%   |
| Uzbekistan | 68.2% | 61.0% | 58.6% | - 9.6%  |
| Ukraine    | 72.8% | 74.2% | 76.7% | 3.9%  |

<sup>16</sup> District heating is an environmentally friendly, safe and economical system for distributing heat produced by a boiler, a cogeneration plant, or a geothermal source in a centralized location for residential and commercial heating requirements such as space heating and water heating. In a district heating system, heat is distributed to buildings via a network of pipes with flowing hot water or steam.

<sup>17</sup> Energy Charter Secretariat (2010).

Source: *The Interstate Statistical Committee of the Commonwealth of Independent States*

**Table 4.7 Availability of hot water supply in urban housing stock**

| Country    | 2000  | 2005  | 2010  | Changes for the period 2000-2010, percentage points |
|------------|-------|-------|-------|---|
| Armenia    | n/a   | 21.7% | 58.1% | n/a   |
| Belarus    | 76.6% | 80.2% | 81.1% | 4.5%  |
| Georgia    | n/a   | n/a   | n/a   | n/a   |
| Kazakhstan | 75.0% | 63.1% | 58.5% | -16.5%  |
| Kyrgyzstan | 38.6% | 35.6% | 6.8%  | - 31.8%   |
| Moldova    | 55.2% | 55.0% | 66.6% | 11.4%   |
| Russia     | 59.4% | 62.9% | 80.1% | 20.7%   |
| Tajikistan | 13.9% | 13.8% | 33.0% | 19.1%   |
| Uzbekistan | 40.1% | 49.4% | 42.3% | 2.2%  |
| Ukraine    | 58.4% | 59.7% | 60.9% | 2.5%  |

Source: *The Interstate Statistical Committee of the Commonwealth of Independent States*

technical servicing; outdated technologies; high prices for imported heat carriers (gas and fuel oil); low level of payments for services by consumers.

In Armenia, due to the collapse of the district heat supply system in the 1990s, the percentage of district heating in residential housing heating shrank from 35% in 1990 to 9% after 1999 in spite of all state-level attempts to revive it, including an attempt to mobilize the funds of international organizations.<sup>18</sup> At present, in Armenia, as well as in Georgia, homes are heated mainly by individual heating units using electricity and natural fuel. Moldova faces the same situation. The increase in heat tariffs caused users to transition to individual heat supplies. By the end of 2011, district heating continued in just 7 out of 35 cities. In fact, 97.7% of apartment buildings still relying on a district heat supply systems are found in just two major Moldavian cities – Chisinau and Balti. Today individual heat systems or built-in boilers are installed in almost in every newly constructed building in the Republic, while new connections to district heating systems are rare. District heating is

considerably more advantageous from an environmental point of view. The combined heat and power plants' (CHP) combustion products are produced locally and eliminated from high pipes spreading to larger areas outside the city. Their relative concentration is very low. Individual gas boilers exhaust all the combustion products right near the housing, polluting the air nearby.

Information about the coverage of the urban housing stock with district heating and hot water supply is presented in Tables 4.6 and 4.7.

### **Urban transportation**

In the former Soviet Union, public transport was highly subsidized and was an essential and widely used service. The use of private cars was a limited and expensive privilege. The use of public transport has declined sharply since the 1990s, following economic recession and subsequent economic reforms. The state authorities transferred responsibility for urban public transport to the municipalities, but usually without allocating sufficient funding. This reduced



**State authorities transferred responsibility for urban public transport to the municipalities, but usually without allocating sufficient funding.**

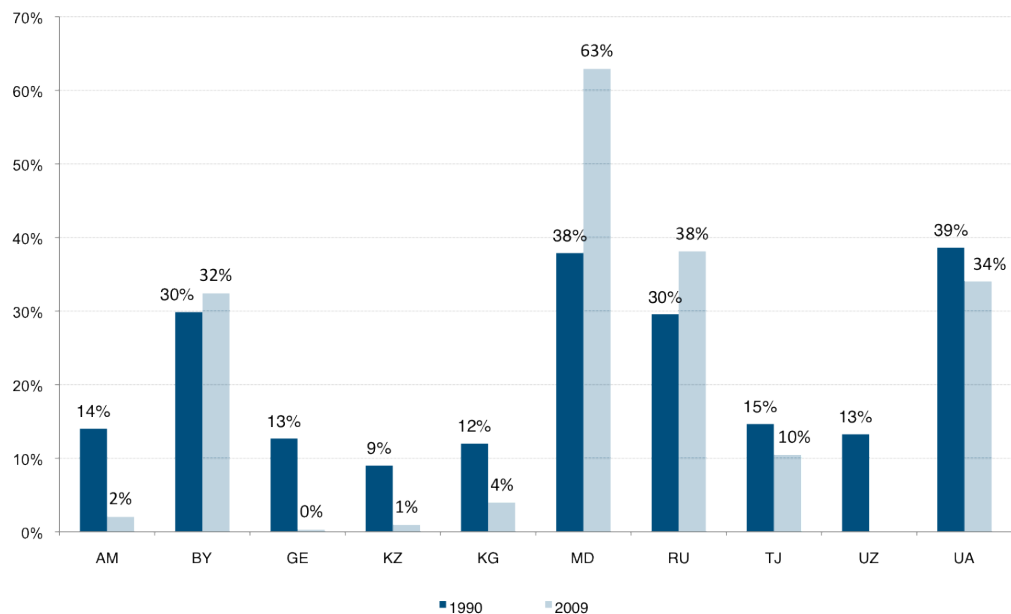
<sup>18</sup> Pasoyan et al (2007).

the quality and quantity of public transport services, and its competitiveness relative to private transport. There have been multiple increases in fares (particularly in Russia where there was a sevenfold increase in the cost of 50 intercity shuttle bus trips from 1990 to 1998). Yet, fares in general are too low to cover costs.

for Kazakhstan, public passenger transportation significantly decreased over the past two decades.

The use of urban ground electric transport (trams and trolleybuses) in the cities of Armenia, Georgia, Kyrgyzstan, Tajikistan, Uzbekistan, Ukraine and Kazakhstan is

**Figure 4.1 Proportion of passenger traffic by urban electric transport relative to total volume of passenger ground transportation along existing intercity routes, 1990 and 2009**



Source: Rosstat (2009).

The increasing rate of car ownership and motorization is especially pronounced in capitals and in large cities. This increase reflects economic growth and changes in social aspirations and attitudes and in the mobility and accessibility needs of the population in Eurasian countries. Nevertheless, it is promoted by the decline in the quality and quantity of public transport, which is experiencing great difficulties in maintaining or regaining competitiveness in the absence of supportive policies and investments. In all countries of the region, except

unfortunately declining. Trolleybuses are environmentally sound and reduce the hazards associated with emissions from internal combustion engines, which makes them more attractive in the development of public transport. In Georgia and Uzbekistan, urban trolley lines were completely put out of operation. (In Tbilisi, the number of buses serving public transport also decreased from 137 in 1990 to 75 in 2002; of these, only 43 still operate. The new form of public transport is minibuses.) Only in Moldova did urban electric transport become



**Table 4.8 Urban electric transport in countries of Central Asia and the Caucasus region in 1990 and 2010**

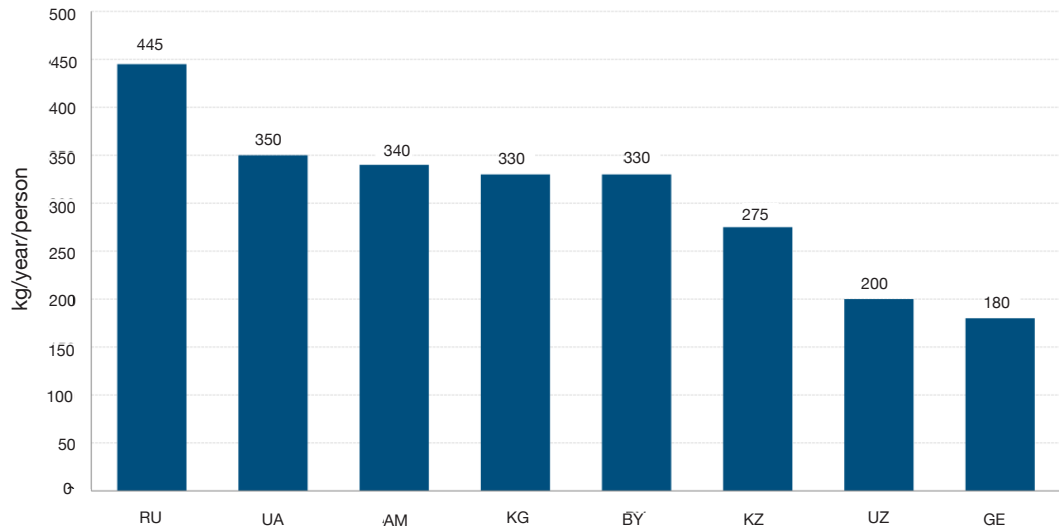
| Country   | Tram  |       | Trolley-bus |       | Underground |      |
|---|-------|-------|-------------|-------|-------------|------|
|   | 1990  | 2010  | 1990        | 2010  | 1990        | 2010 |
| <b>Number of cities with lines for urban electric transport</b> |       |       |             |       |             |      |
| Armenia   | 1     | 0     | 2           | 1     | 1           | 1    |
| Georgia   | 1     | 0     | 11          | 0     | 1           | 1    |
| Kazakhstan  | 5     | 4     | 8           | 4     | -           | 1    |
| Kyrgyzstan  | -     | -     | 2           | 3     | -           | -    |
| Tajikistan  | -     | -     | 2           | 2     | -           | -    |
| Uzbekistan  | 1     | 1     | 7           | 1     | 1           | 1    |
| <b>Length of two-way lines, km</b>                              |       |       |             |       |             |      |
| Armenia   | 41.4  | 0     | 146.4       | 0     | 10.5        | 12.1 |
| Georgia   | 38.5  | 0     | 300         | 0     | 25.2        | 26.4 |
| Kazakhstan  | 135.4 | 115.3 | 298         | 225.5 | -           | 8.56 |
| Kyrgyzstan  | -     | -     | 101.5       | 131.6 | -           | -    |
| Tajikistan  | -     | -     | 84.3        | 67.2  | -           | -    |
| Uzbekistan  | 117.9 | 79.1  | 280.3       | 40.5  | 25.7        | 36.1 |

Source: Zyuzin (2012).

the main mode of urban passenger transportation in the capital of the country, Chisinau. This was due to a decrease (by half) of private motor vehicle transportation countrywide and a well-developed electric transport infrastructure. (Figure 4.1).

Over the past two decades, the only type of transport to have seen a slight increase in construction of new lines is underground railways (metro systems). Several new underground stations were commissioned in Armenia and Georgia (Table 4.8). On December 1, 2011, the first ever underground line was opened in the city of Almaty (Kazakhstan).

The number of journeys by public transport over the recent years across the Eurasia region decreased by more than half, although in Russia, Ukraine and Belarus the decline was not so sharp. In many cities, the state and municipal transport of high passenger capacity (buses, trolleybuses, and trams) was replaced by privately-owned micro-buses of lower capacity that work the same routes as the state transport. The growing popularity of this new type of transportation, which can be explained by a much higher level of comfort provided for the same price, contributed to large-scale ousting of the traditional public transport

**Figure 4.2 Amount of solid waste produced annually per person**

Sources: Khashimov and Bakhtiyor (2011); Baekenova (2011); USAID, DFID and Eurasia Foundation (2007); Kadatskaya et al (2010).

<sup>19</sup> Antadze and Gugushvili (2006).

<sup>20</sup> The present situation with the solid waste management in Eurasia has roots in the Soviet Union, where waste management was not high on the policy agenda. At the same time there were some positive aspects of the Soviet system with respect to waste management: the generation of household and municipal waste and, especially, packaging waste was much lower than in most developed countries and there were systems in operation to recycle paper and for the reuse of glass bottles.

<sup>21</sup> In mid-2006 a joint initiative to develop a complex programme called *Behaviour with Waste in the City of Dnepropetrovsk for 2007–2011* was launched. The programme tried to set up conditions that support comprehensive waste collection, transport, sorting, recycling, utilization, and landfills. Both collection of waste and the disposal activities have been outsourced, and significant investments made in new equipment such as waste bins and waste collection trucks. In the case of Dnepropetrovsk, strong action was taken by NGOs and the political and administrative sector to develop this municipal waste strategy.

from the market. However, there is a problem of safety with the new transport, since the private transportation companies that most frequently provide such services tend to reduce spending on driver training. In addition, the public transport fleets in all countries are in poor condition, and do not even meet minimum environmental standards. Increased traffic loads due to the growing number of private vehicles, impair the performance of public transport.

### **Solid waste management**

In the Eurasia region, solid waste management is given low priority by governments and municipalities. This is combined with a low level of environmental public awareness.<sup>19</sup> Waste management, as a rule, is limited to the collection and transportation of waste to be dumped in landfills. Waste is not “managed” in the modern sense of this term.<sup>20</sup> Delays in collection, non-sanctioned landfills and illegal dumping are common problems for most countries in the region. The

legal regulation of waste management in the Eurasian region is targeted mainly at environmental pollution, rather than the reuse and recycling of solid waste. In Russia, for instance, 90–92% of solid waste is transported for disposal at landfills, while only 1.8% of solid waste is incinerated, and only 3–4% is recycled. In Kazakhstan and Belarus, the proportion of solid waste intended for re-use is around 4%. In other countries, less than 1% of solid waste is reused or recycled. In Ukraine, solid domestic waste is reused only in two cities – Kiev and Dnepropetrovsk.<sup>21</sup>

Russia produces the largest amount of solid waste per person in the region (445 kg), and Georgia the least (180 kg) (Figure 4.2). Only large cities boast sanitary landfill sites.

In most Eurasian cities, solid waste is dumped at specially designated sites without any further levelling and covering. The worst situation is found in Uzbekistan, Kyrgyzstan and Tajikistan, where more than 90% of operating waste disposal facilities

and landfill sites are in a critical state. These landfills are unfenced and the soil is not protected by concrete, raising the possibility of the contamination of subsoil water. Waste is left to decay in dirt collectors, on sludge draining beds, landfills and composting fields, resulting in harmful emissions. The collection and management of landfill gases, which also contain the potent greenhouse gas methane, is rare, leading to a high risk of fires and explosions. Moreover, the growth in municipal waste generation is expected to cause a substantial rise in greenhouse gas emissions in the coming years because of the significant amount of organic material in municipal waste.

These problems are most severe for large cities. For example, the mayor of Almaty (Kazakhstan) stressed that the city's landfill situation is critical: "Domestic wastes accumulating in the city are removed to Kara-saisky landfill located some 34 km from Almaty. Its area is 34 hectares and it has been operating for almost 25 years. According to tentative estimates, nearly 4 million tons of waste is buried there, and the landfill has obviously exhausted its service resources. The technology of storing solid waste is violated. There are numerous spots of spontaneous combustion, filtrate leakages through the levees."<sup>22</sup>

In most countries of the region, the system of sorting, recycling and secondary utilization of solid domestic waste is not fully

developed due to the lack of a system of separate collection for different kinds of waste. However, new approaches to waste recycling are emerging in a number of cities of Russia, Ukraine, Kazakhstan, Belarus and Uzbekistan, involving selective collection, sorting, and secondary use of resources. In Armenia and Georgia, some small-size companies recycle paper to produce toilet paper and packing materials. In Armenia, there are no systems for collecting and sorting of solid domestic waste on a national scale, but there are 29 private organizations that produce goods using waste products (paper, glass, plastic, metal, etc.) which they get from the streets, in the absence of a system of waste collection or under contracts for waste collection with local governments in some cases. A paper manufacturing company in Tbilisi is the largest of its kind in Georgia. It produces packing materials and cardboard boxes from waste.

New national regulations on sorting, storage, and organized haulage of solid waste came into effect in the city of Tashkent, capital of Uzbekistan in August 2012. These regulations are mandatory, and require household waste to be sorted into five categories. In Ukraine, the sorting of solid waste has been mandatory since February 2010. As of early 2013, this law has been applied in 185 settlements (mostly, in small- and medium-sized). Eight settlements have waste sorting stations, and 16 more such stations are under construction.



**New approaches to waste recycling are emerging in a number of cities of Russia, Ukraine, Kazakhstan, Belarus and Uzbekistan, involving selective collection, sorting, and secondary use of resources.**

<sup>22</sup> Results of the questionnaire survey of mayors and technical experts.



## 4.4

### Management and financing of basic services

In Eurasia, there are positive trends in the evolution of management models, and most local authorities select the models they find appropriate for managing the enterprises that provide basic services. At the same time, local authorities generally lack the power to set tariffs for basic services, which makes it difficult for them to fulfil their responsibilities for provision.

#### ***Water supply and sanitation***

In almost every country of the Eurasia region, notably in Kyrgyzstan, Tajikistan, Ukraine, Belarus and Russia, water supply and sanitation providers are owned by municipal and higher-tier governments.

In Kyrgyzstan, most water companies are state- or municipally-run public companies. In rural settlements where water system rehabilitation or new construction projects have been financed by the World Bank or the Asian Development Bank, the responsibilities for operation and maintenance are taken on by the Rural Public Associations of Water Users (an elected public organization with several employees who are paid from water tariffs). These public companies own the water systems. In Tajikistan, the state body that manages

drinking water provision is the state unitary enterprise, *Khochagii Manziliyu Kommunalni*. It is responsible for drinking water and sanitation service provision to cities, districts, townships and villages, as well as for controlling the quality of water. In the cities of Dushanbe, Khudjand, Nurek, Rogun, and in the Faizabadski and Varzobski districts, the drinking water supply facilities are managed by specialized enterprises owned by the municipalities of the same name. In Kazakhstan, water and sanitation systems are owned mainly by local executive bodies, and operated by state-owned companies.

In Armenia, all specialized enterprises in the water and sanitation sector are contracted out to the private sector. Water supply and sanitation facilities are municipal property and are managed by private operators under the public-private partnership (PPP) contracts. Currently, five water operators deliver water supply and sanitation services to 80% of the country's population, four of them operators at regional level, whilst Yerevan Water (CJSC) provides services for the capital and suburbs. In addition, water supply networks in 580 rural settlements (where about 18% of the population lives) are owned and maintained by local governments.<sup>23</sup>

In Georgia, the water supply and sanitation systems have, until recently, been managed limited liability enterprises. A small part of the water supply is provided by open Joint Stock Companies (JSCs). In both cases, they are 100% state-owned. Engineering infrastructure and other fixed assets of the water supply and sanitation in small and big cities of Georgia used to belong to municipalities, but starting from 2008, JSCs Rustavivodokanal, Mtskhetavodokanal, Tbilisi Water and Gruzvodokanal have been transferred to private owners. In Russia, about 25% of the population is provided with water and sanitation by private operators under PPP contracts.

### Heat supply

The heat supply situation varies across the region. In Russia,<sup>24</sup> Kazakhstan, Uzbekistan, Ukraine and Kyrgyzstan, the heating market is patchy, with segments under the control of various owners, including JSCs (private or with a stake held by the state) which own large combined heat and power sources and their heating pipes, and state or municipally owned utilities which generally hold low-power heat sources (municipal boiler houses) and heat distribution networks. In Belarus and Tajikistan, the practice of vertically integrated heat providers (centrally controlled and locally operated) continues to exist, though there are fewer than in the Soviet era.

In Belarus, state enterprises provide the heat supply (with the exception of some power generating facilities and heat supply systems belonging to enterprises or municipalities). In Kyrgyzstan, the heating enterprises operate as JSCs with the essential stake of state participation and state (communal) enterprises. In Uzbekistan, 25% of heating and hot water supply services are provided by combined heat-and-power plants owned by the state JSC, Uzbekenergo, by large boiler stations, owned by oblast-level bodies (30%) and by district-level bodies of public authority (45%). In Moldova, the heating enterprises are structured either as municipal enterprises, or as JSCs in which private operators have a minimal stake. For example, the heat supply enterprise in the city of Ungen (AO "Comgaz plus") was founded in 2000 as a JSC by the municipality (mayor's office) and a private gas company. At present, the municipality owns a 99% stake in the company.

### Solid waste management

The models applied for managing the utilities engaged in solid waste collection, haulage and disposal vary across the countries. In Uzbekistan and Kyrgyzstan these services are provided by municipal agencies



**In almost every country of the Eurasia region water supply and sanitation providers are owned by municipal and higher-tier governments.**

<sup>23</sup> Khachatryan (2010).

<sup>24</sup> There is a mosaic of different institutional models and settings in Russian district heating markets across the country. The share of the private sector in district heating ranges from no involvement to 100%, and it declines as one goes along the heat supply chain from generation to distribution. Municipalities predominantly own district heating facilities, and are increasingly leasing them to private operators. In some cases they transferred ownership of some parts of the district heating system to private companies.





**Private operators dominate the market of taxi and bus transportation services.**

or utilities authorized by local governments. In some cities, primarily in Uzbekistan, local governments use private operators for the collection and removal of solid waste.

In Moldova, all municipalities sign contracts with private companies for removal of waste, with the principle of “polluter-pays”. This system covers almost 60-90% of urban areas. In rural areas, the private sector is also involved in waste removal, although these services are unaffordable for a most of the rural population. In Russia, Belarus, Ukraine, Kazakhstan, Armenia and Georgia, solid waste collection and haulage services are in the hands of private operators, who are generally selected by municipalities through competitive tendering or, in Russia, by the companies servicing apartment buildings, which are entitled to make contracts for domestic solid waste collection. Management responsibilities with regard to landfill sites lie with municipal agencies and authorized enterprises. Landfill sites may also be handed over to private operators on the basis of management contracts.

Box 4.1 describes the PPP waste collection arrangement serving both the domestic and commercial sectors in Saransk, Russia.

In Kyrgyzstan, domestic waste is only collected and removed by municipal and private companies in major cities (Bishkek). Small cities rely on informal waste collection with subsequent sorting and sale to waste recycling factories. In Armenia, informal waste collectors specialize in collecting metals, plastic, cardboard, etc. This sector is so well developed that if the national government pursues a sound policy, the country could soon organize separate waste collection with subsequent recycling, and thus resolve the problem of landfills beyond city boundaries.

In Tbilisi, the establishment, within the municipality, of a unified department for managing solid domestic waste improved the control and monitoring of the quality of services in this area; the reduction of the number of service providers from nine to just one simplified the management.



#### Box 4.1 Selective waste collection in Saransk, Russia

In Saransk, the private German company, Remondis, is involved in a public-private partnership project, providing solid waste collection, haulage, and sorting services. The company uses special containers for paper and plastic waste in order to minimize spending on their sorting and reuse. Remondis provided new plastic bins for solid waste collection, with different colored containers for paper and plastic waste. The company has new fleet of, mainly German, waste trucks. There is a wide public awareness campaign on environmental benefits of solid waste sorting in the town. The company's successful operation is proved by the fact that residents sort solid waste in accordance with marks on the bins. What is more important, Remondis is also effective at reusing and recycling the sorted out waste. The company sells cardboard and paper to pulp-and-paper mills located in Nizhniy Novgorod Oblast, and plastic waste to manufacturers of plastic containers. A site of a municipal sorting plant (built in 2008 but never put into operation), serves for extra sorting activities and waste crushing.

Remondis is planning to build up its capacity by renovating the plant and upgrading the landfill site, using the public-private partnership mechanisms.

*Source: Interview with local government officials and senior managers of solid waste management utilities (Saransk)*

### Urban transportation

In the sphere of public transportation services, the proportion of municipally owned transport is minor, as noted – all electric vehicles and some buses. Private operators dominate the market of taxi and bus transportation services. Municipal governments typically seek to encourage a wider private involvement in provision of passenger transportation services with a view to a revitalized competitive environment and incentive-based service provision. Box 4.2 describes the rapid growth in the use of private minibuses in Uzbekistan.

In Georgia, public transportation services are provided by municipal enterprises. Any individual may perform public transportation services provided they are granted a permit from the municipal authorities. In Tajikistan, only the city of Dushanbe has functioning municipal transport enterprises; in other cities public transportation services are provided by private entrepreneurs. In Ukraine, the responsibility for urban trans-

port is divided between the municipal operators, who are responsible for electric vehicles, and private operators, who are responsible for motor vehicles. In Belarus, all transport companies, with the exception of the unitary enterprise, Minsktrans, are state-owned<sup>25</sup>. Responsibility for the regulation and management of transport sector is assigned to the Ministry of Transport.

### Financial standing of public service providers

Regardless of the form of management (state, municipal or private), most of the enterprises providing public services in the countries of the Eurasian region have to face the problem of a shortage of funds. All city representatives who were surveyed were of the view that there are serious financial problems with regard to basic service provision: 31% of respondents reported a lack of funds for even basic operational activity; 53% emphasized that the funds available could



**Regardless of the form of management (state, municipal or private), most of the enterprises providing public services in the countries of the Eurasian region have to face the problem of a shortage of funds.**



#### Box 4.2 Turning to private minibus service in Uzbekistan

Since 1991, Uzbekistan has been facing a sharp deterioration in the performance of its passenger transportation system. Within only a few years, the country witnessed a many-fold reduction in a number of urban passenger routes and journeys while the performance of passenger transportation services became substandard, failing to meet even basic standards of comfort and safety.

Despite this deterioration, demand for urban passenger transportation services remained, and municipal and state-run transport operators were unable to satisfy it. This paved the way for arrival of private transport operators.

A rapid growth in private passenger transportation services was driven by the launch (in 1995) of a Daewoo Damas minibus production line at a local automobile plant UzDaewoo. The unprecedented low cost for these vehicles (4-6 thousand euros, depending on the vehicle configuration), as well as the opportunity for installment purchasing made the minibus essential for passenger transportation across the republic. In fact, in the second half of the past decade, more than five thousand such minibuses were running in Samarkand, the second largest city of Uzbekistan, where they accounted for over 90% of all intra-urban passenger transportation.

Source: The results of interview with local government officials and senior managers of urban public transport enterprises (Asaka), and information from <http://www.uzdaewoo.ru/>

<sup>25</sup> In Belarus, private carriers make up no more than 10% of passenger services. Not counting Minsk, private carriers serve more than 750 city and suburban routes.

hardly cover the operational activity; and only 16% confirmed that enterprises and the city had enough funds both to cover costs and to invest. Most Eurasian utilities engaged in water supply, sanitation and heating face underfinancing, with insufficient funds not only for upgrading systems but also for covering their operating costs.<sup>26</sup> This is accounted for by politically driven tariff regulation based on a principle of “socially acceptable tariff rates”. Gaps between costs and tariffs for water, sanitation and heating for households are covered by budget subsidies or cross-subsidizing. For example, in Ukraine, tariffs for water supplies to households account, on average, for 74% of the production cost of this service; for sanitation, 64% of the cost, and for heating, 48%. In Russia, Kazakhstan and Belarus, tariffs generally cover operating costs, but are not high enough to finance necessary investment.<sup>27</sup>

Georgia provides an example of good practice: the tariff regulation guidelines require obligatory compensation of reasonable expenses of the water company, including both operating costs and costs for upgrading and renovation. Box 4.3 describes an approach to setting fair tariffs in Tbilisi.

The highest level of cross-subsidizing in the region is found in Tajikistan, where the tariff for heat supply to industrial consumers in 2010 was 28 times higher than the tariff for households (20 and 0.7 Euro/Gcal respectively). Utilities dealing with collection, haulage and disposal of solid waste are mainly financed by direct payments from users, which are calculated on the basis of the rate of accumulation of solid waste, or on the basis of the actual volume for the prior period. Budget funds may serve as an additional source of finance. In Tajikistan and Kyrgyzstan, utilities engaged in the collection, haulage and disposal of solid waste are facing the worst situation of all those in the region. Utilities in these countries lack funds even for their operating activities.<sup>28</sup> This leads to gradual deterioration of the service performance. Grant funding from international organizations is the only source for the rehabilitation of solid waste collection, haulage and disposal systems in Tajikistan. In Georgia, Russia, Ukraine, and Kazakhstan, utility tariffs generally suffice to cover operating costs and provide for the proper maintenance of landfill sites.



#### Box 4.3 Setting socially fair tariffs for solid waste management services in Tbilisi, Georgia

Tbilisi provides an example of good practice. In order to set socially fair tariffs for solid waste haulage and, eventually, increase collection rates, the municipal government based tariff calculation on how much electricity was used by residents. The city's mayor emphasized that “A tariff based on a number of persons living in an apartment fell short because of intensive migration in Tbilisi which is a factor complicating the accounting. A tariff calculated on the basis of floor space is not socially justified and technically unrealizable because private buildings and ‘Italian yards’ abounding in the capital resist cadastral accounting. Besides there is a difficulty with closed apartments in which nobody lives at the moment. For that reason, a criterion reflecting the affluence of a household has been chosen.” In the opinion of the head of the municipal government, more than half of the metropolitan population will benefit from these new regulations and pay less for solid waste haulage than before.

<sup>26</sup> The situation comes from the Soviet system which disregarded water tariffs as an economic tool for efficient management and a source for cost recovery. Sivaev and Danilenko (2003).

<sup>27</sup> In Russia and Kazakhstan the possibility of setting long-term tariffs for water supply, sanitation and heat supply companies is stipulated in national legislation. These tariffs are set to mobilize investments in the modernization and rehabilitation of utility infrastructure.

<sup>28</sup> For more information see UNDP (2011).

Source: results of the questionnaire survey of mayors and technical experts

The main sources of financing for transportation companies in the region are passenger fares and revenues from activities not related to passenger transportation. For example, in Belarus, cargo and passenger transportation based on one-time orders, provision of a guarded parking, repair services for automobile transport on the production base of the transport enterprise, contribute 10% to the total revenue of transport companies, and, as a rule, almost 30% of total enterprise resources are from such non-core activities.

Financial problems suffered by providers of water supply, sanitation and heating services in Moldova, Tajikistan, Kyrgyzstan, Armenia and Georgia, stem mainly from mass non-payments of tariffs due to the high poverty levels in these countries. State policy-makers in the region agree that it would be politically unacceptable to increase tariffs for basic services to the levels required to cover costs. Box 4.4 describes an approach taken in Armenia.

Compared to European states, the burden of payments for housing and utility services is not critical for households in Eurasia as a result of tariff-control policies.<sup>29</sup> While the percentage of spending on these services as a proportion of total consumer expenditure has increased in all countries except Kazakhstan, it does not exceed 11% in any country of the region, and in Kyrgyzstan and Tajikistan, the two poorest countries in the region, it is below 5% (Table 4.9). Moreover, most countries (Russia, Kazakhstan, Kyrgyzstan, Uzbekistan and Ukraine) subsidize housing and utility fees, with the size of subsidies depending on household income. In Russia, the maximum acceptable proportion of household expenditure on housing and communal services of total household income is set at 22%, in Ukraine, at 10% for the disabled and 15% for the able-bodied.

The laws in Ukraine establish various benefits for different categories of citizens. More than 13 million people, or 29% of the population, are entitled to social benefits.



**It would be politically unacceptable to increase tariffs for basic services to the levels required to cover costs.**



#### **Box 4.4 Forgiving customer debt for water and sanitation services in Armenia**

In Armenia, the law “On establishing benefits with regard to repayment of debts for water supply, sanitation and irrigation water provision” played a crucial role in improving the condition of the water and sanitation sector. It allowed service user debts accumulated prior to 2000 to be written off, provided a service user had repaid 15-20% of their debt in 2000-2002. Almost 90% of service users took advantage of this scheme and signed contracts with local water and sanitation companies for water supply and sanitation services. As a result, more than 42 thousand new subscribers were registered and, along with the improvement of the performance of water and sanitation companies, there were signs of stabilization of their financial situation, the accumulation of debts receivable reduced over the recent years, and the expenditures of the water supply and sanitation companies began to match the actual revenues. Contracts for the lease and management of water and sanitation systems included incentives for improving the quality of services, full cost recovery and capital investment at the expense of cash flow. The installation of water meters on the premises of subscribers has been an important component of the reform in all companies.



**Debt financing  
for infrastructure  
projects is rare.**

Depending on the category of benefits, the discount in payments for housing and communal services varies from 25 to 100%. In Moldova, the amount of targeted compensation also differs depending on the household income and varies from 25 to 50%. In 2005, in Russia, subsidies and benefits were replaced by cash payments, and the efficiency of this approach became obvious. On the one hand, cash payments ensure the targeted nature of assistance, and on the other hand, they enable communal enterprises to get payments on time and directly from households without application of any compensatory mechanisms by state authorities.

stations) or by local or higher-tier governments (for losses at boiler houses). The Government of Armenia raises loan funds and grant financing to cover capital costs for the rehabilitation and expansion of water supply and sanitation systems; however, government policies entail a gradual curtailing of budget subsidies for the water supply and sanitation sector. In Belarus, state funding of transport enterprises accounts for 70 to 80% of total finance. Local subsidies for intra-urban passenger transportation services make up about 15% of total finance, but the amount is being gradually reduced. Since April 1, 2013, in

**Table 4.9 Expenditures for housing and utility services as a proportion of consumer expenditures of the population (based on randomized survey of household budgets)**

| Country    | 2000  | 2005  | 2009  | 2010  | 2011  |
|------------|-------|-------|-------|-------|-------|
| Armenia    | 5.8%  | 6.5%  | 10.7% | 10.5% | 10.9% |
| Belarus    | 3.0%  | 9.1%  | 7.7%  | 7.0%  | 5.5%  |
| Georgia    | n/a   | n/a   | n/a   | n/a   | n/a   |
| Kazakhstan | 11.9% | 11.1% | 9.9%  | 9.9%  | 8.3%  |
| Kyrgyzstan | 4.9%  | 4.9%  | 4.7%  | 5.7%  | 4.9%  |
| Moldova    | n/a   | n/a   | n/a   | n/a   | n/a   |
| Russia     | 4.7%  | 8.3%  | 8.7%  | 9.2%  | 9.5%  |
| Tajikistan | 1.8%  | 3.4%  | 4.6%  | 4.7%  | 4.3%  |
| Uzbekistan | n/a   | n/a   | n/a   | n/a   | n/a   |
| Ukraine    | 6.6%  | 7.4%  | 8.9%  | 8.7%  | 9.1%  |

Source: *The Interstate Statistical Committee of the Commonwealth of Independent States*

Deficits in funds on the part of Eurasian public utilities are mainly compensated for by central and municipal governments. Private financing of the sector is scarce. In Kyrgyzstan, losses sustained in the course of electricity generation and transportation are covered by electricity export revenue (for losses at thermal electric power

Russia, heat suppliers and water and sanitation companies that receive less revenue than they are owed due to tariff regulation can get compensation from the budget of the Russian Federation.

In Uzbekistan, there is a combination of public and private funding of heat supply projects (Box 4.5)





#### Box 4.5 Upgrading and financing heat supply in Chirchik, Uzbekistan

In August 2012, the German company, Bosch Termotechnik GmbH, signed a contract with the agency Uzkommunkhizmat to upgrade the heat supply system in the town of Chirchik (Tashkent Oblast).

Under the contract, the German company will renovate Chirchik's system by switching it to indirect hot-water supply. In place of heat-carrying agents, the new system will rely on hot water prepared in boiler houses servicing one or several buildings. This upgrade will allow for a more than 30% reduction in heat losses and a drastic improvement to the quality of hot water.

Bosch Termotechnik will supply ready-to-operate equipment for upgrading basic and ancillary equipment of boiler houses servicing 725 buildings in the town. The project is to be implemented over a three year period. For Uzbekistan this will be a first project aiming at transition to an indirect hot-water supply. The project, with an estimated total cost USD 20 million, will be financed by central government and from Uzbekistan's bank loans.

Source: <http://www.uzdaily.uz/articles-id-12357.htm> (in Russian)

Similar examples are found in other countries. In Russia, the European Bank for Reconstruction and Development (EBRD) granted EUR 273 million to the Rosvodokanal group of companies for the development of the Kaluzhskiy Oblastnoi Vodokanal LLC and TverVodokanal LLC enterprises, and for debt restructuring. In Moldova, the World Bank will finance the upgrading of the Termokom JSC. Currently, the Government of the Republic of Belarus is working on the details of the mobilization of loans and grants from international financial institutions (EBRD, North Investment Bank, Environmental Partnership of the Northern Dimension) to finance water and sanitation projects in the cities of Vitebsk, Baranovichi, Slonim, Grodno and Brest. Up to EUR 30 million will be spent between 2011 and 2015.

It is noteworthy that projects in the area of public services are currently financed mostly by international banks for development, rather than by local commercial banks. The mobilization of loans from national commer-

cial banks is constrained by the low credit-worthiness of water and sanitation, heat supply, urban passenger transport, and solid domestic waste management enterprises. These enterprises often resort to borrowing only to deal with cash-flow shortages. Debt financing for infrastructure projects is rare, due to the unavailability of long-term rates and the considerable political risks of raising tariffs. Another important factor is that part of the revenue of municipal enterprises is generated by budget allocations. Because of utility subsidies which, in some cities, are paid for by the municipal budget, enterprises depend on the availability of funds in the city budget, which further increases potential credit risks. Policies pursued in the Eurasia region thus result in most countries resorting to financing from external sources, including international organizations, for the implementation of projects oriented toward improving the performance of piped water supply, sanitation, heat supply services and also towards developing the market of public services and the energy sector as a whole.



**Private operators are being attracted to the utility sector in the Eurasian region by the various models of PPP in use.**

### Role of the private sector in basic services provision<sup>30</sup>

In Armenia, Belarus, Ukraine, and Tajikistan, full private ownership of water supply and sanitation infrastructure is forbidden by law. Until recently, in Russia, the process of privatizing the fixed assets of water and sanitation systems was rather dynamic, and was implemented through the inclusion of these fixed assets in the start-up funds of JSCs. A law banning the privatization of water and sanitation systems was enacted on January 1, 2012. Since then, privatization in this sphere is allowed only if their fixed assets are included in the start-up capital of the unitary enterprise, and the state (federal or regional level) or municipal unitary enterprise is subsequently transformed into a JSC. In Tajikistan, the law prohibits full private ownership of all types

of water systems, although individuals and legal entities may own water supply facilities and systems built at their expense.

The law in Georgia contains no restraints on the transfer of water supply and sanitation systems to private ownership. Moreover, the law doesn't mention specific forms of ownership as such, and, as is the case in laws in a number of European countries, uses a common term "owner". Water supply and sanitation facilities and systems, therefore, may be owned, without any restriction, by central government, local government, or private individuals and legal entities.

Kazakhstan had a positive experience in restructuring and privatizing the heat supply sector, and privatizing water supply and sanitation systems. The town of Shymkent provides a good example of water company privatization (Box 4.6).



#### Box 4.6 Privatizing the water system in Shymkent, Kazakhstan

Vodokanal of Shymkent - Vodnyie Resursy – Marketing (VRM) – is a private company that owns the assets of the water system, while municipal government holds a 22% stake in its capital stock.

The responsibility for repairs, maintenance, renovation and operation of the existing water and sanitation systems lies with the company, while issues related to investing in new assets and the expansion of the utility system are a municipal responsibility. The municipal government also assigns the responsibility for the operation of the new assets to the VRM.

The VRM became the only water company entitled to establish a medium-term tariff (the "ceiling price" approach) rather than a classic annual tariff (the "costs plus profit" system). The medium-term tariff is set for a three-to-five-year period. This approach allows certain capital expenditures to be built into the tariff along with operating costs and revenue.

The VRM provides round-the-clock access to water supply and sanitation services. The company meets every local sanitary standard applied to drinking water. It is laying water conduits to outer boroughs under a project financed from loan funds. The water company is a leader in Kazakhstan and ranks among the best water companies in the Eurasia region.

<sup>30</sup> This section has drawn on Sivaev et al. (2006); Sivaev (2008); OECD (2008).

Source: OECD (2006).

Private operators are being attracted to the utility sector in the Eurasian region by the various models of PPP in use, primarily in Russia, Ukraine, Kazakhstan, Armenia, and Moldova.<sup>31</sup> Over recent years, both the legal and institutional conditions necessary for the implementation of PPP projects have been established. The most widely used forms of private sector participation in the utility sector in the Eurasian region are lease contracts.<sup>32</sup> In this model, a lessee assumes responsibility not only for the system management, but also for the collection of payments for the provided services. Authorities remain responsible for investments, which can be made, partially or fully, using lease payments. There are cases when the operator is also responsible for investments under a lease contract. Contracts for concession and management are less frequently used in the Eurasia region. The results of the questionnaire survey confirm that lease contracts are the dominant form of public-private partnership in the area of basic services due to the well-developed legal framework regulating the conclusion of lease contracts in contrast to the other types of contracts.

However, many countries, particularly Russia, Kazakhstan and Tajikistan, have enhanced their legislation by adopting special laws regulating the conclusion of concession agreements over the last ten years.<sup>33</sup> Similar laws in Moldova and Uzbekistan were adopted as early as 1995, but recently the governments in the two countries have significantly amended these laws to attract private operators. The adoption of such laws is also helpful for setting the rules for selecting operators in order to enhance competition for the right to operate utility infrastructure facilities.

Nevertheless, the practice of interaction between public authorities and the business community is not always successful. This can be seen in the case of Rostov-on-Don

(Russia) where the former city administration transferred waste and sanitation facilities to a private operator under a lease contract for a 49-year term. The contract does not stipulate any performance indicators, which is a great obstacle to the assessment of private operator's performance according to the current city mayor.<sup>34</sup> In Ukraine, according to official statistics, there are 19 PPP water projects, 14 in the heat supply sector, and 5 in solid waste management. However, these examples can hardly be characterized as positive. One of the best known concession agreements in Ukraine, an agreement to transfer the waste and sanitation system in the Luganskaya oblast to a private operator (the Russian company "Rosvodokanal") was cancelled in December 2012, just 3 years after signing. Neither the oblast authorities, nor the private partner were satisfied with the partnership; tariffs for services increased significantly, the quality of water supply deteriorated and the number of accidents surged.<sup>35</sup>

In terms of PPP development, the Eurasian countries can be divided into four groups:

**Armenia and Russia:** The involvement of privately owned enterprises in the water and sanitation sector is common in these countries. Despite different forms of cooperation between businesses and authorities, PPPs have generally been successful in these countries (Box 4.7).<sup>36</sup>

**Georgia, Kazakhstan and Ukraine:** Recently, these countries have been doing a lot to try to attract privately owned enterprises to the utility sector. However, the involvement of private companies in this sector is still rare, with only a few examples.

**Kyrgyzstan, Moldova, Tajikistan and Uzbekistan:** In these countries, the participation of private sector in basic services provision is either non-existent or very modest. However, there is a sound basis for private involvement due to the decentralization of utility management according to which

<sup>31</sup> While both Kazakhstan and Ukraine have seen basically only domestic operators express interest in water utilities, Armenia has openly invited international operators to participate in the management of water infrastructure in the country and has worked closely with donors and IFIs to prepare the contracts. This has resulted in significant improvements in the operations of the two water utilities.

<sup>32</sup> For more information see: OECD/Institute for Urban Economics (2010); OECD (2011).

<sup>33</sup> The laws encouraging investment in utilities sector have been adopted over the past decade in a number of Eurasian countries: the law on concessions in Russia (2005), Kazakhstan (2006) and Tajikistan (2011); "On Specificities of Leasing and Concessioning of Centralized Water Supply-, Heat Supply-, and Sanitation Facilities in Communal Ownership" in Ukraine (2010); and laws "On Public-Private Partnership" in Kyrgyzstan and Tajikistan in 2012.

<sup>34</sup> Sivaev and Shakirov (2011).

<sup>35</sup> Zapatrina (2010); Zapatrina and Lebeda (2011).

<sup>36</sup> For more information see Khachatryan (2009); and OECD/Institute for Urban Economics (2010).

central government transfers associated responsibilities to regional or local authorities.

**Belarus:** This country has a centralized national system that manages the utility sector. All responsibilities in the sector rest with the state authority. Privately owned companies are not welcome in the utility sector and, moreover, it would be impossible to attract them without radical institutional changes.



**Virtually no countries in the region have high levels of citizen participation.**

### **Role of local communities: citizen participation in public service provision**

For a range of reasons, social, economic, political and legal, virtually no countries in the region have high levels of citizen participation. The role of local self-governance in most cases amounts to providing a number of social services established by laws for citizens; these services are subsidized from the state budget, rather than being self-

organizing and self-financing. The amount of public service financing is determined by state, rather than local, policy, and frequently depends on the funds allocated by the central bodies of power. In this situation, potential forms of citizen engagement in the process of exercising power at the local level, as provided by law, are losing their significance. Instead, they give rise to incredulity at the possibility of influencing decisions taken at the local level. Nevertheless, the population of all countries of the Eurasian region participates to some degree in the process of rendering public services.

### **Water supply and sanitation**

Kazakhstan and Georgia have laws which provide for active public involvement in decision-making around water supply and sanitation. In Kazakhstan, prior to adopting new tariffs for water and sanitation, territorial bodies of the Agency for



#### **Box 4.7 Using a PPP for heat supply in Novoshakhtinsk, Russia**

The town of Novoshakhtinsk (Russia) provides a good example of enhanced energy efficiency and improved reliability of heat supply systems.

Novoshakhtinsk emerged as a pioneer in implementing a pilot project based on using heat pumps to use the low-potential thermal energy of abandoned coal mine waters to heat educational and health care facilities. The company, Teplonasosnye Systemy-Novoshakhtinsk LLC, implements the project. The first phase of investment for construction of Heat Pump Station #1 (HPS #1) amounts to USD 5 million.

The pilot project resulted in the improved performance of heat supply services, which may be explained, by, among other things, the adjustment of supplied heat volumes according to weather conditions and building usage.

The municipal government intends to engage a private operator on the basis of a public-private partnership for the purpose of switching the entire town to renewable energy sources for heat supply. The entire heat supply system will be handed over to a private operator under a lease agreement with investment commitments. The private operator will upgrade the heat supply system by constructing heat pump stations, and be required to reach the performance indicators in compliance with their bid. The municipal government, as a leaseholder, has the right to supervise the private operator.

Natural Monopolies' Regulation have been organizing, on a mandatory basis, public hearings to discuss issues relating to the operations of water and sanitation companies, the level of technical and commercial losses of water, enterprises' expenditures, and changes to tariffs. Various public organizations and representatives of local communities are invited to such hearings.

Democratization in Georgia has led to an intensification of the activity of different community organizations, which represent the best-organized and most conscientious part of the society. Due to the fact that water and sanitation problems directly influence levels of wellbeing, public health and the environment, various social organizations actively contribute in tackling these problems. A wide range of tools and procedures for public participation in the process of decision-making in the area of water and sanitation are incorporated into both national legislation and international conventions. In Armenia, community organizations are also involved in the processes of setting tariffs for water.

Ukrainian legislation recommends the engagement of representatives of community organizations and owners of multi-family buildings in verifying the conformity of water and sanitation services with the standards, norms and rules established for

their provision. Laws of Uzbekistan and Kyrgyzstan also encourage voluntary public participation in the renovation, repair and maintenance of the water, sanitation, and heat supply networks, as well as in the creation of local partnerships engaged in public service provision. Kyrgyzstan's *Taza Suu* programme envisaged the participation of local communities in the renovation of water supply infrastructure. Their involvement entails the borrowing and repayment of loans, the maintenance of the water supply systems and tariff setting. In Tajikistan, the inhabitants of many settlements are making efforts toward creating their own models of organization for water supply and sanitation. Specifically, the practice of establishing public committees of water users with local administrations is widely used. A water committee consists of 10-12 people, elected by the community. These committees are entitled to make decisions on every issue relating to the organization of water supply and sanitation in a settlement. The committees accumulate funds through monthly payments in the amount of 1-2 somonis (USD 0.2) made by each household. The accumulated funds are then used to finance the maintenance and operation of water supply and sanitation systems. Box 4.8 describes an example of their activities.



#### Box 4.8 Local volunteers build toilets in Tajikistan

In Muminabadskiy Rayon, Temurmaliyskiy Rayon, and Beshkentckiy Rayon of Tajikistan's Khatlonskaya Oblast, all the locals voluntarily participate in building toilets, and cleaning water pipes and reservoirs. In some settlements community involvement has built school toilets, cleaned reservoirs for drinking water, and organized the co-financing of a water network construction project. The water committee of Shibonai settlement, whose inhabitants have long suffered from high incidence of malaria because of a weedy collecting ditch, together with religious leaders of the community hired a power shovel and paid for its driver's services with money collected from the inhabitants. As a result, the problem has been solved, and the water committee now supervises the maintenance and operation of the collecting ditch.





**Laws provide for community participation in transport service provision. However, the population rarely gets involved in the process.**

### ***Heat supply***

In some parts of Moldova and Armenia, homeowners' associations are involved in organizing and/or managing heat supply systems. There have been successful pilot projects in the sphere of heat supply implemented in the Armenian cities of Yerevan, Gyumri, and Spitak. The experience gained in these cities proves that cooperatives may be effective in organizing rehabilitation/renovation and in managing heat supply systems via raising loan funds.<sup>37</sup>

### ***Urban transportation***

In all the countries under review, laws provide for community participation in transport service provision. However, the population rarely gets involved in the process. Most often civic involvement is limited to making changes to the urban route network. Routes can be cancelled, extended or changed in some other way at the request of residents, if the request is deemed reasonable. For instance, in Ryazan (Russia) a bus route was changed and extended, and the number of buses per route was increased. This shortened the journey time by 15 minutes. In Minsk (Belarus), at the request of locals who expressed their dissatisfaction with certain routes, a scheme of roadside stations was reconsidered. As a result, journey times were reduced. In Donetsk (Ukraine), there is a practice of introducing new routes at the request of inhabi-

tants, provided that passenger flows along the routes are heavy.

### ***Solid waste management***

Community involvement in the area of solid waste management is rather anaemic. However, there are good examples of selective waste collection in Russia (Saransk, Yekaterinburg), Uzbekistan (Tashkent), Georgia, and Ukraine. Specifically, since 2010, an EU financed project on the development of a comprehensive strategy of waste management has been carried out in the Zakarpatskaya Oblast of Ukraine. The project provides a regional platform for co-operation between all tiers of government and community organizations. Under the project a great many activities take place to change the public opinion on solid waste management and the environmental situation in the country. Large companies, community associations and religious organizations take part in these awareness-raising activities. For instance, the municipal government participated in cleaning the Latoritz riverbed and collected about 60 cubic metres of waste, including plastic containers. Much attention is paid to the promotion of environmental protection measures and the proper treatment of waste by young people. Special training aiming at upbringing young generation with proper attitude to environmental issues is regularly conducted.<sup>38</sup>

<sup>37</sup> UNDP/GEF (2010).

<sup>38</sup> [http://www.wastegovernance.org/ukraine\\_rus.html](http://www.wastegovernance.org/ukraine_rus.html)



## 4.5 Existing and emerging challenges

Basic service provision in the Eurasia region has shown some improvements over the last decade but performance remains generally unsatisfactory, with negative impacts on the population, the environment and the economy as a whole. Countries have progressed at different paces and there are some examples of successes, but in most cases, where improvements in performance have been observed they have usually remained at a limited scale.

The development of basic service provision in the Eurasia region, as repeatedly noted in this chapter, is held back by a number of factors. The results of the survey undertaken for this investigation specified a range of factors that affect the development of basic services and their relative significance. The rise of energy prices (14%) was found the most important, followed by utility infrastructure wear (13%). The affordability of new technologies and a lack of finance and support from other levels of authority received 12% each; and these were followed by other factors (Figure 4.3). Some of these factors are discussed in more detail below.

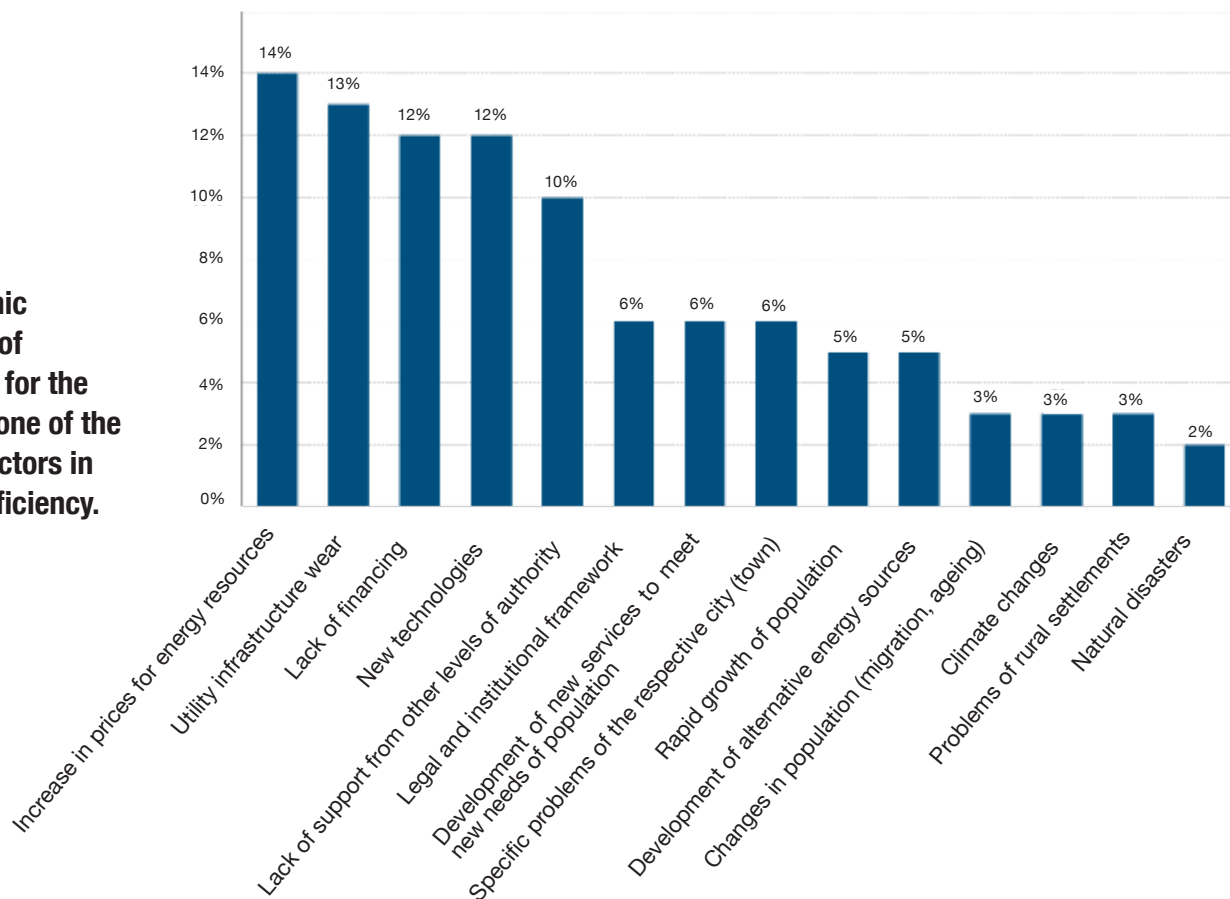


**Basic service provision in the Eurasia region has shown some improvements over the last decade but performance remains generally unsatisfactory.**

**Figure 4.3 Factors which affect the development of the public service sector the most according to the questionnaire survey of city representatives from some countries of Eurasia region**



The chronic shortage of financing for the sector is one of the crucial factors in its low efficiency.



Source: Results of the questionnaire survey of mayors and technical experts

**Price increase for energy resources:**

These inevitably result in rising prices for all goods and services, including utility services, and obviously lead to a reduction in real household incomes. The increased prices for energy resources most adversely affect the utility sector, because money in the form of consumers' payments is channelled towards the coverage of continuously growing cost of energy resources, rather than the repair of worn-out utility infrastructure.

**Lack of financing:**

The chronic shortage of financing for the sector of the basic services reviewed here is one of the crucial factors in its low efficiency. Tariffs and collections in some countries (especially in Central Asia) are too low, so enterprises lack money to invest. Most of the revenue of enterprises that provide public services comes from consumers' payments, with the remainder provided with the help of budget financing. Tariffs are kept at an artificially low level,

and state expenditures are not increased to cover this shortage. Repayment financing from private sources is still very insignificant although, in recent years, the private sector in the Russian Federation has undertaken considerable obligations with regard to investments. Basic services are still under-financed, and their operation implies high expenditures that scare away potential investors. The social aspect of policy in the area of public services provision remains highly relevant for the countries of the Eurasian region, especially as far as tariff policy is concerned.

**Significant wear and tear of infrastructure:** In most cases, the condition of networks and facilities fails to meet the requirements of sustainable, high-quality basic service provision. The existing utility infrastructure networks and facilities are significantly worn-out. This means growing accident rates, disruptions in the operation of utility infrastructure, across the board over-spending of material and technical resources, and a waste of energy and water. The lack of maintenance and reconstruction of outdated water distribution networks in the Eurasia region, for example, results in high water losses in networks. Non-revenue water can reach about 50 to 60% of the total volume of water delivered to the network, which is four to five times higher than best practices in adequately operated utilities in the Western Europe. It is most important to prevent the further wearing-out of fixed assets by conducting repairs and renovation, since these costs will only grow if left for the future. Fixed assets in water and sanitation and heat supply have a long service life, and in some cases it is difficult to estimate their ability to ensure sustainable service provision. Deterioration of the

quality of services observed over recent years in the countries of the Eurasian region is, as a rule, the first sign that, in the past, their fixed assets were not properly maintained. It means that the lack of proper repairs and maintenance will result in much higher expenditures in the future.

**Climate change:** the importance of ensuring a reliable water supply and the reduction of contamination will only increase within the context of climate change. Some countries in the region already experience an acute shortage of water resources (Kazakhstan and Uzbekistan). This shortage is even a problem for some regions in countries that are considered to be rich in water resources – for example, the southern parts of the Russian Federation and Ukraine.

**The inconsistency of reforms:** Although it is not a factor included in the survey results, this bears discussion here. Almost every country of the Eurasia region carries out programmes seeking to develop and rehabilitate its water, sanitation, heat, and solid waste management sectors. The countries have a long history of participation in programmes that focus on enhancing the performance of heat services, which are implemented with the assistance of international financial institutions (European Commission and United Nations Development Programme, European Bank for Reconstruction and Development (EBRD), World Bank, U.S. Agency for International Development). Admittedly, although a huge body of work has been done, the countries have a long way to go to solve the problem of access to basic services of high quality. The reforms have failed to yield the expected results because they were incomplete, inconsistent, and their implementation was inefficient.



**The importance of ensuring a reliable water supply and the reduction of contamination will only increase within the context of climate change.**

## CONCLUSIONS



**A centralized approach still dominates provision of the basic services.**

Basic services provided in Eurasian countries fall roughly into two groups. One group encompasses water supply, sanitation, and heat supply services, with the responsibilities for their provision and regulation in the hands of local governments and higher-tier governments, respectively. The second group includes solid waste management and passenger transportation services, the responsibilities for which lie mainly with local governments. For both groups, however, local governments face the problem of substandard performance, stemming from their common institutional environment: the inadequate state of public infrastructure and facilities, the lack of resources and instruments needed to enable financing for basic service provision, and a high reliance on higher-tier governments.

As for the region as a whole, a centralized approach still dominates provision of the basic services. The access of the Eurasian population to basic services is generally satisfactory. Compared to other countries of the region, Russia, Ukraine, Belarus and Kazakhstan enjoy the most favourable situation, with access to all basic services. In the Caucasus region, in Moldova, Tajikistan, Kyrgyzstan and Uzbekistan, a substantially smaller proportion of people have access to all basic services. However, the wear and tear on the systems, low level of operation and inefficient management have made it impossible to provide basic services of assured quality to the population on sustainable basis. All countries in the region have developed, to different degrees, a legal

framework to ensure public participation in the process of decision-making on issues of basic service provision. They have also ratified various international conventions obligating them to build public awareness and participation in decision-making. Quite frequently, countries understand “public participation” as the right of the local community to have access to information about various processes, rather than any further public participation in decision-making, which is deemed to be of minor importance.

Forms of ownership and management of enterprises and organizations engaged in provision of basic services in Eurasian countries include municipal enterprises, private companies and private sector involvement on a PPP contracts basis. Most water and sanitation companies continue to be municipally owned, while in the sphere of heat supply, solid waste management, and passenger transportation, the share of municipal and private enterprises are much the same.

In virtually all countries of the region, the state subsidizes water and sanitation and heat supply enterprises by allocating funds for operation and technical servicing. As a rule, tariffs for public services are under-priced to decrease the burden on household budgets and mitigate potential social discontent. Naturally, with such mechanisms in place, and an extremely poor accounting of resources, it is difficult to attain the high level of payment for services and stabilization of the financial standing of enterprises-providers of these



services. Subsidies from the state budget are, as a rule, insufficient. As a result, enterprises are not cost-efficient, they are unattractive for the private sector, and they fail to fully perform their core functions.

The practice of the countries of the Eurasia region with regard to attracting the private sector in the public services provision is not unified and or equally widespread everywhere. Armenia, Russia, Ukraine, Georgia and Kazakhstan have, in general, positive experience of implementing projects involving public-private partnership in various areas of public services provision. Moldova, Kyrgyzstan, Tajikistan and Belarus are just making the first steps towards development of PPP aimed at improving the quality of public services provision.

All countries in Eurasia are making efforts aimed at improving the quality of basic service provision. However, they have to walk a rather difficult and long way to really address the task of providing a better coverage and quality of public services, including the task of attaining the Millennium Development Goals.

Activities at the national level aimed at enhancing the level and quality of basic services should include decentralization of powers and resources to manage the sector, an increase in the overall financing, an improvement in the investment climate, the adoption of national programmes and measures to ensure both financial and administrative incentives and support for local initiatives.



**All countries in Eurasia are making efforts aimed at improving the quality of basic service provision.**

## RECOMMENDATIONS



**Economies of scale and scope have to be considered. The appropriate scale for water supply may not be the same as for sanitation.**

To improve the provision of basic services it is advisable to carry out, at the national level, a number of activities aimed at developing grassroots initiatives, reinforcing and disseminating positive practices.

### Overall recommendations

#### *Decentralization*

At present, in most countries of the region, centralization processes are underway. On the one hand, there are government statements about the legal decentralization of the basic services sector, but on the other hand, an increasing centralization of decisions is witnessed. Legal decentralization of mandates in the public services domain should be reinforced by both administrative and financial mandates of local authorities; the delegated functions should be supported with adequate financial resources. This involves such important issues as budget co-financing of the public services sector at the local level and tariff policies designed with due regard for people's ability to pay. The small scale of basic service provision at the local level and the poor competencies of local managerial staff should be addressed, not through the transfer of authority to "higher echelons of power", but rather by developing horizontal links in the form of inter-municipal cooperation and, eventually, private sector partnerships for better services provision. More discretionary power should be given to local governments

to adopt the models for provision that are most appropriate at local level.

#### *Improved multi-level governance*

Although more practical attention should be given to subsidiarity and to the realization of the decentralization objectives articulated by government, it is also important to bear in mind that many challenges in basic services provision are of both local and national concern. There are also functions that are more effectively located at higher levels. Genuine partnership is the goal here, and coordination between jurisdictions is essential. Well-balanced policies should be developed, based on the decentralization of responsibilities and resources, with the parallel creation of national mechanisms to encourage the development and modernization of services through legislative frameworks and state programmes to support local reforms. This calls for the facilitation of a policy dialogue among key stakeholders, including not only different tiers of government, but also civil society and the range of service providers. Both vertical and horizontal links can be encouraged to improve the effectiveness and efficiency of local services. Policy reforms also should be considered in order to facilitate cooperation among municipalities in enhancing efficiency of basic services provision through supporting inter-municipal cooperation agreements which will allow local governments manage services jointly and undertake local development programmes.

### ***Attention to maintenance***

It is most important to prevent the further deterioration of fixed assets related to the basic services provision by conducting repairs and renovation, since these costs will only grow if left for the future. In order to improve maintenance of service infrastructure, it is necessary to ensure the kind of minimum tariff levels that would cover the operational expenses of basic service provision. At the same time, there is an important task in enhancement of infrastructure maintenance, which involves such measures as introduction of modern methods of management, use of IT-technologies, personnel development, and investment in human capital assets.

### ***Increase the overall financing of the public services sector and improve the investment climate in the sector***

The task of attracting investment in basic services is essential to enhancing the level and quality of services. Establishing the credit-worthiness of local government is an important step. The major challenge in the region is to improve the tariff regulation, increase cost recovery through user fees, and target state assistance to low-income households. Moreover, to improve the investment climate, it is necessary to create a system of incentives for service providers to cut expenses, modernize their operations and enhance the level and quality of services. Verification of the financial affordability of public services should be an integral component of the tariff establishment process and new schemes for social support of low-income households should be reviewed (or the already existing schemes

must be strengthened). At the same time it is critical to attract other investment, and to find better ways to harness the involvement of the private sector.

### ***Attention to environment protection and energy efficiency enhancement***

A modern level of basic service provision is characterized not only by high quality for consumers, but also by rational energy consumption and the minimum negative impact on the environment. These tasks have to be the focus of attention when policies are created to modernize the basic services sector. A routine focus on enhancing energy efficiency leads to a decrease in unproductive expenses, and the task of environmental protection can be viewed, both environmentally and economically, as being in the public weal. Budgetary financing should include a focus on handling the problems related to environmental protection.

### ***The Involvement of citizens in development planning of basic services sector***

Sustainable urban development, minimizing conflict on use of urban areas, and balanced policy on providing high-quality basic services to the maximum number of people are all connected to the establishment of long-term systems of urban planning. Such urban regulation requires that local authorities adequately ensure the changing needs of citizens. An important tool for this purpose is the involvement of citizens in discussion and negotiation on the main issues related to basic services development – from solid waste collection technologies to the route plans of public transport.



**Governments of Eurasian countries would benefit from supporting local levels to improve management and contracting.**

## Sectoral recommendations

### *Water and sanitation*

The water and sanitation sector in the Eurasia region has shown some improvements over the last decade but performance remains generally unsatisfactory, with negative impacts on the population, the environment and the economy as a whole. Countries have progressed at different paces and there are some examples of successes that can provide inspiration for other countries in the region. Most countries have experimented with several solutions, such as different scales of operation or different models of private sector participation contract, before identifying the solution that was most suitable to their context on a “trial and error” basis. Where improvements in performance have been observed, however, they have usually remained at a limited scale. There is considerable uncertainty as to where additional financing is going to come from in order to finance improvements in performance and much needed capital investment.

A number of actions and policy measures can be undertaken in order to initiate, consolidate and scale-up improvements in the water and sanitation sector in Eurasian countries:

- **Elaboration of strategies for small-scale water supply and sanitation systems:** some of the Eurasian countries are still searching for the optimal scale of operations of water supply and sanitation systems, by grouping water and wastewater operators that are too small to operate efficiently. The establishment of regional operators is not necessarily the optimal option. Economies of scale and scope have to be considered. The appropriate scale for water supply may not be the same as for sanitation. Overcoming the effects of over-fragmentation can take

different forms, including: promoting inter-municipal cooperation, permanent groupings with transfer of asset to a single new operator, or temporary grouping and no asset transfer. Temporary grouping can also be used for reaching an appropriate scale to let private sector participation contracts.

- **Development and implementation of water supply and sanitation projects to introduce advanced, acceptable and affordable technologies on water supply and sewage treatment:** Water-related investment planning in Eurasian countries can be more systematically based on sound technical and financial analyses. Investment plans can be designed strategically so as to avoid “detriments” along the way. For example, connecting the population to the sewerage network but without adequate investments in wastewater treatment can generate negative impacts in some cases, when there is no appropriate outlet for the untreated sewage and this effectively transforms diffuse pollution into end-point pollution. Preventive maintenance and depreciation allowances are cost effective ways to avoid large investments in the future.
- **Improvement of tariff setting procedures:** Tariffs and tariff setting are areas where regulation can be improved. Tariff setting methodologies should be developed and applied, considering estimates of the overall revenue requirements to cover all costs (including operations and routine maintenance, large maintenance expenditure and capital expenditure), alternative sources of finance and capacity to pay from different groups of consumers. Different tariff structures can be considered to meet specific objectives. In particular, tariff structures can be designed to allow for tariff increases without negatively impacting the poor.



**Market-based pricing policies should be developed that allow full cost recovery.**

- **Strengthen local capacities to set contractual arrangements:** Contractual arrangements can be powerful tools to regulate providers of water supply and sanitation services, public or private, to improve performance monitoring and to increase transparency. Governments of Eurasian countries would benefit from supporting local levels to improve management and contracting (e.g. preparing model contracts at national level which can be used and adapted at the local level, improving mechanisms for tariff-setting that enable moving towards cost-recovery, and developing transparent rules and mechanisms for disputes resolution). Central governments can then provide guidance and support to local authorities in charge of contracting, particularly in countries where the water and sanitation sector remains highly decentralized. The objective should be to strengthen the capacity of local authorities to carry out water service regulation, with a focus both on tariffs and service quality regulation.
- **Local energy planning:** Zoning should allocate various heating options to the areas of coverage in a way that utilizes the least cost supply option and achieves the most affordable tariffs, the best return on investments, and the most environmentally friendly performance and demand-driven service. This should be based on heat load density and the development of municipal plans that compare and evaluate all possible heat supply options, potential fuel sources (including renewable energy), generation costs and energy efficiency. There should be an evaluation of future heat demand and necessary investments to accommodate the additional supply and incorporation of heating options into urban planning, requiring that new residential buildings or existing public buildings connect to the recommended heating option available in the area. Local heat planning should be coordinated with related regional territorial and sectorial development policies and plans.
- **Regulatory and legal framework:** Market-based pricing policies should be developed that allow full cost recovery, and subsidies and cross-subsidies that impede fair competition between district heating and individual gas heating should be eliminated. The establishment of a regulatory framework that includes the institutional capacity to foster investment in sustainable heat systems, and reliable customer service is advisable. Ensure successful opening of the heating sector for private sector participation: the experience shows that leasing, concessions, partial privatization and other PPP schemes can support local authorities in district heating sector restructuring and district heating systems modernization.
- **Energy efficiency:** While there is an incentive for efficiency in private, profit-oriented businesses, in other cases



**All Eurasian countries would benefit from improvements in their waste management systems, both in the development of policies and the actual management of the waste.**

### ***District heating***

The share of the market served by district heat is much higher in Eurasian countries than in the European countries. This is one of the legacies of central planning and many argue that energy efficiency, economic, and environmental advantages of district heat should be preserved. In some countries the valuable heating assets inherited from the Soviet era are fully depreciated. Russia and particularly Ukraine have started making some progress in heat sector reform. The modernization and implementation of reform should be further promoted to minimize supply costs, promote efficiency and provide these large nations' populations with affordable heat. Based on a review of heat sector of Eurasian countries, several key recommendations can be articulated for national and local governments in area of heat sector reform:





**Legal decentralization of mandates in the public services domain should be reinforced.**

policy interventions can promote the efficiency of heat supply and end use. These include energy efficiency standards for heat generation equipment and heating networks, certification and labelling programmes, building energy codes, regulatory requirements on metering and customer relations prescribed in the supplier's license, debt amnesties for installing metering devices, training for local personnel (particularly in small towns) and government support for investments in low income households.

#### ***Urban transportation***

The transport sectors of the Eurasian countries have reflected the economies of these countries for the last 20 years: gradual increases to 1990, then a sharp decline in the early and mid-1990s, followed by a recovery. Public transport has not been able to benefit from the increased demand in many countries, as a result of relatively poor levels of infrastructure, rolling stock and services, and due to a decline in investment in the 1990s. Municipal authorities are faced with local transport problems caused by increased car use and a decline in the use of public transport. In the absence of firm policy action, growing car traffic could literally crowd out public transport, while at the same time reducing demand for its services. Some recommendations on improving public transport services include:

- **Maximizing the potential for public transport:** public transport has a potentially significant role to play in the development of sustainable models of transport. This potential should be maximized by integrating the development of the public transport infrastructure within the development of the wider transport system — in other words, ensuring that the development of the public transport infrastructure is complementary to the infrastructure for individual transport.

The first step in this process is simply to preserve the public transport systems that still exist and to ensure that these are sufficiently funded to retain existing and to attract new users. The development of a public transport infrastructure should then be considered as an integral part of a general transport plan, so that it is developed to complement the road network, rather than be replaced by it. In the longerterm public transport operations must be put on a more sustainable basis, from the financial and administrative points of view, maintained, developed and delivered well into the future.

- **Traffic management:** traffic management is also a tool that can be used to support public transport. Priority measures, including dedicated lanes and traffic light settings, can favour trams and buses over individual transport. Computerized traffic management systems can likewise help to improve traffic flow and to ease congestion. The recent proliferation of privately owned buses is potentially complementary to the state-owned public transport systems, although concerns about the safety of these privately-owned buses will need to be addressed.
- **Greening the vehicle fleet:** Much of the vehicle fleet in Eurasian countries is relatively old and, therefore, in need of renewal. Given that many countries in the region have little or no domestic vehicle production, policies focusing on controlling the characteristics of the vehicles imported into the country can be a useful tool to improve the environmental performance of the vehicle fleet. This should, of course, be supported by national legislation, establishing emissions standards for newly registered vehicles. Where there is domestic production of vehicles, emission standards should be introduced that require the use of more advanced technologies. It is important to



**Well-balanced policies should be developed, based on the decentralization of responsibilities and resources.**

ensure that vehicles, once in use, maintain their environmental performance. So, regular inspections of passenger vehicles, including their emissions performance, need to be carried out, and, where such programmes are already in place, be properly enforced.

### **Solid waste management**

All Eurasian countries currently face problems with proper collection, treatment and disposal of municipal waste. Contrary to the situation in the EU, regulations and legal requirements have not resulted in significant improvements in waste management in the Eurasian region; there has been no significant improvement in the municipal waste sector over the last 10–15 years. All Eurasian countries would benefit from improvements in their waste management systems, both in the development of policies and the actual management of the waste. Areas requiring attention are:

- **Regulatory and legal framework:** Development and implementation of waste strategies and related legislation could include defining preferred treatment options for different waste streams, setting up goals for recycling, and ensuring proper standards for disposal and recovery facilities. A review of the waste tariff system to implement the ‘polluter pays’ principle and to provide stronger financial incentives for better waste management and waste prevention is also recommended. Improve coordination and cooperation between the different authorities dealing with waste at national, regional and municipal level. This should include more clear division

of tasks and allocation of responsibilities to avoid overlaps.

- **Solid waste collection systems:** In many municipalities in Eurasian countries, the systems of solid waste collection need to be modernized with a view to:
  - providing a sufficient number of waste bins and ensuring the regular collection of waste;
  - implementing separation of waste at source, to collect those waste fractions which can easily be reused or recycled;
  - introducing collection trucks with compacting facilities and, if possible, the ability to collect different kinds of recyclable waste materials separately;
  - revising the tariff system for waste collection and disposal to improve payment collection rates and better link the fees with the actual waste generation;
  - ensuring regular collection of data on the quantity and composition of municipal waste and using the results in planning;
  - making the most urgently needed improvements to ensure that the waste is landfilled in a proper way, to minimize illegal waste dumping, and to assure minimum technical standards for safe landfilling;
  - raising public awareness about waste issues and about specified actions they can take;
  - achieving better cooperation between the public waste sector and the private sector.



**It is necessary to create a system of incentives for service providers to cut expenses.**



**Stablishing the credit-worthiness of local government is an important step.**







# V. EUROPE



**Pierre Bauby and Mihaela M. Similie**

*Reconstruire l'action publique*

[www.actionpublique.eu](http://www.actionpublique.eu)





## 5.1 Introduction: diversity and unity

Compared to other world regions, Europe has a small area in relation to its population size, and thus has a relatively high population density. European countries have a long history of free local government administration on the one hand and, on the other, of public services. The phenomena of urbanization are ancient and, nowadays, they are less sensitive than in other parts of the world. At the same time, the issues concerning the sharing of powers and responsibilities between different levels of public authorities remain essential.

Since the 2008 social, economic and financial crisis, local and regional authorities have had to adapt to a new political and economic context. The functioning and practices of sub-national and local authorities have been subject to many reforms, largely initiated by national governments. Budgetary restrictions, recentralization tendencies and the progressive disengagement of central governments impact local and regional self-government in Europe and the freedom of action of local governments.<sup>1</sup>

Across Europe, local public authorities have responsibilities for basic public service provision and management.



**Local basic services are the expression of an essential dimension of local autonomy.**

<sup>1</sup> For a detailed presentation of these reforms, Victor Gnis, study for the Council of European Municipalities and Regions (CEMR), June 2013, to be published on [www.ccre.org](http://www.ccre.org).



**Amidst national diversity, there is a profound unity in Europe as regards basic public services.**

Local basic services are the expression of an essential dimension of local autonomy.

Overall, about 70% of the EU's population live in urban areas, but there are significant discrepancies between and within countries. Large cities and metropolitan areas make up an important part of national GDP (for instance, the Athens and Dublin have an almost 50% of national GDP).

At the same time, cities and towns themselves, in particular large ones, are confronted with specific challenges in ensuring balanced development and cohesion. The urbanization challenge in Europe is quite different than in other regions of the world. In Europe, urbanization is not a recent phenomenon; in most countries, the movement of rural populations to urban areas continues, but with neither the same intensity nor with the same consequences as in low- and middle-income countries. In Europe, urbanization is accompanied by phenomena such as urban sprawl, “rurbanization,” shrinking city-centre populations, and deprived or unintegrated populations, often concentrated in suburban areas. These phenomena, developing in different ways in different countries and regions, have important implications for basic public services, which have difficulties in anticipating these transformations and in responding to them appropriately.

In Europe, the basic services under analysis are regarded as “public services” or “services of general interest” (SGI). The specific history, traditions, culture and institutions in each country continue to mark the nature and evolution of these services across the continent.

The notions and concepts defining public services, as well as public services’ areas of delivery and provision, their economic or non-economic nature, the management models (public, mixed, private or associative), and the authorities responsible for them, vary across Europe.

Each of the 31 countries covered by this chapter is the subject of a country-sheet presenting the state and issues of its local basic services.<sup>2</sup> There are 27 official languages in use across these countries, and the terminology and concepts used to define and discuss ‘public services’ are, consequently, diverse. However, the process of European integration has led to a common set of terminology to allow mutual understanding between the different languages and traditions covered by this report (services of general interest, services of general economic interest, non-economic services of general interest, social services of general interest, universal service, etc.) We will use the terms “public services” and “services of general interest” (SGI) interchangeably in this chapter.

Beyond linguistic and cultural diversity, there are two fundamental approaches to public services in Europe. On the one hand, the *organic approach* defines a ‘public service’ as any service provided by a public entity. Under this approach, privatized services are no longer considered public services. By contrast, the *functional approach* emphasizes services’ aims and particular tasks and defines public service as those which are considered essential. The functional approach is not concerned with whether the service operator is public, mixed or private. This second approach is common to European countries and was formalized in the Treaty of Rome of 1957, which coined the expression “services of general economic interest”. It explicitly emphasized the aim of public services (to serve the general interest) and recognized their “particular task”, while proclaiming the neutrality of the Community/European Union, as regards service ownership in Member States.<sup>3</sup>

At the same time, amidst national diversity, there is a profound unity in Europe as regards basic public services. They are subject, not only to common competition law

<sup>2</sup> This report draws from 31 country sheets summarizing the evolution and/or the situation of local basic public services in the European countries covered by GOLD III project. These are available at [www.uclggold.org/](http://www.uclggold.org/)

<sup>3</sup> Articles 106 and 345 of the Treaty on the Functioning of the European Union (TFEU).

and market rules, but are also organized and regulated according to specific norms. These norms have the following three aims which constitute their tripod of legitimacy:

- guaranteeing each inhabitant the right to access to essential goods or services;
- building solidarity, developing social bonds, ensuring economic, social and territorial cohesion, promoting the general interest of the community concerned;
- taking into account long-term considerations, the interests of future generations, addressing market failures, creating the conditions for economic, social, environmental and sustainable development.

These objectives of general interest are at the heart of the system of values which characterizes all European Member States and are a common value of Europe (Art. 14 Treaty on the Functioning of the European Union - TFEU).<sup>4</sup>

An analysis of recent developments and the current state of basic public services in Europe reveals three major influences, which work in combination to shape the gradual changes that are taking place in all EU Member States:

- national histories, traditions and institutions, which continue to deeply mark models of organization and regulation in each country;
- sectoral logic, i.e. telecommunications, electricity, water, and transport cannot be organized in the same way or be subject to identical rules in the Single European market;
- the “Europeanization” of basic public services. This does not mean that all services are regulated or organized in an identical way. Europeanization is shaped by national traditions and the specificities of each sector.

## National traditions

Each European country has specific a historical background and traditions, a particular geography, and specific institutions, models of organization and forms of regulation. However, we can identify some common features within this diversity, which, without claiming to give an exhaustive typology, allow us to define meaningful general models.

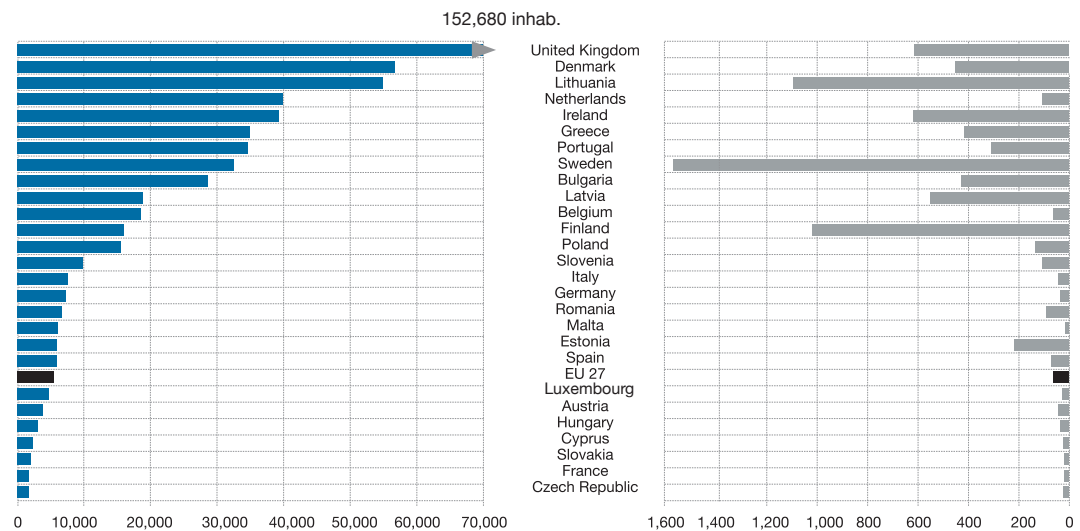
The disparities in size and population between the Member States are relatively well known (see figure 5.1). For an average EU density of 114 inhabitants per km<sup>2</sup>, some States have a very low density (17 for Finland, 22 for Sweden), others are close to the average (94 for Romania, 99 for Austria, 109 for Hungary, 110 for Slovakia, 114 for France, 122 for Poland, 132 for the Czech Republic), while Germany has 231 inhabitants/km<sup>2</sup>, the United Kingdom 247, the Netherlands 482 and Malta 1272! Population density plays a major role in organizing SGIs as meeting the basic needs of inhabitants and societies implies that these services have a direct relationship with localities and their populations.

The number and size of municipalities, as well as their powers, resources and responsibilities, vary across Europe. France alone accounts for 40% of the total number of municipalities of the entire EU, but the average number of inhabitants per French municipality is one of the lowest in Europe. On the other hand, the United Kingdom has only 0.5% of the total number of municipalities in the EU, but British “local authorities” are the largest in terms of population. The variety of States’ political and administrative structures (see Table 5.1) complicates the picture even more.

However, municipalities often have the same responsibilities, whatever the population levels and densities of their community.

Traditionally, in most European countries, local communities enjoy self-government

<sup>4</sup> Cf. Bauby and Similie (2010); Bauby (2011).

**Figure 5.1 Average population and area of municipalities in Europe in 2011**

Source: [http://www.ccre.org/docs/Note\\_CCRC\\_Dexia\\_EN.pdf](http://www.ccre.org/docs/Note_CCRC_Dexia_EN.pdf)



**Over the last 15 to 30 years, a series of decentralization initiatives have reinforced local and regional self-government across Europe.**

with either general or specific limited responsibilities. Furthermore, over the last 15 to 30 years, a series of decentralization initiatives have reinforced local and regional self-government across Europe. However, public authorities' responsibilities in the area of local basic services are not identical, and depend on the history and institutional structure of each country. Moreover, while all Member States have municipalities or similar entities, eight EU Member States have no intermediary level of government between local and national levels (six countries with low population and surface area, and Finland and Bulgaria). Conversely, eight EU Member States have two intermediate levels between local and national governments (six countries that cover a large geographical area, such as Poland and France, as well as Austria and Belgium). Between these two extremes, eleven countries have one intermediate level of government.

This institutional heterogeneity has consequences for where the responsibilities for basic public services fall, which varies

greatly between countries. Moreover, the EU has no jurisdiction to harmonize this diversity by introducing common rules on basic public services, as confirmed by the Lisbon Treaty.

Another issue to be taken into consideration is the very different forms of organization of each Member State, from centralised unitary states (even if they implement 'decentralization' policies) to federal states, which result in very different responsibilities between levels and across sectors (cf. *infra*).

Physical geography also plays an important role in the organization of basic public services, the responsibilities of local authorities, and the precise definition of their tasks. Water services are not organized in the same way in areas with easy access to good quality water resources as in areas where water is scarce, difficult to access and/or polluted. Transport networks, their accessibility, building and maintenance costs are very different in urban and densely populated areas from in sparsely populated mountains.

**Table 5.1 National geographies and institutions**

| Country                    | Population<br>M. inhab | Area<br>10 <sup>3</sup> km <sup>2</sup> | Density<br>inhab/km <sup>2</sup> | Communes<br>or equivalent | 2 <sup>nd</sup> level                       | Regions or<br>Federated States |
|----------------------------|------------------------|---|----------------------------------|---------------------------|---|--------------------------------|
| <b>Austria</b>             | 8.2                    | 83.9                                    | 98                               | 2 357                     | -   | 9 federated states             |
| <b>Belgium</b>             | 11.1                   | 30.5                                    | 364                              | 589                       | 10 provinces + 6 communities<br>and regions |                                |
| <b>Bulgaria</b>            | 7.6                    | 111.0                                   | 68                               | 246                       | -   | -                              |
| <b>Croatia</b>             | 4.4                    | 56.5                                    | 78                               | 429                       |   | 20 counties                    |
| <b>Cyprus</b>              | 0.8                    | 9.3 (5.6)                               | 86                               | 520                       | 2 (Kainuu<br>and Åland)                     | -                              |
| <b>Czech<br/>Republic</b>  | 10.2                   | 78.9                                    | 129                              | 6 250                     |   | 14 regions                     |
| <b>Denmark</b>             | 5.5                    | 43.1                                    | 128                              | 98                        |   | 5 regions                      |
| <b>Estonia</b>             | 1.3                    | 43.7                                    | 30                               | 226                       | -   | -                              |
| <b>Finland</b>             | 5.4                    | 337.0                                   | 16                               | 336                       |   | 19 regions                     |
| <b>France</b>              | 65.4                   | 552.4                                   | 118                              | 36 683                    | 101<br>counties                             | 26 regions                     |
| <b>Germany</b>             | 81.9                   | 357.0                                   | 229                              | 12 629                    | 439<br>districts                            | 16 federated states            |
| <b>Greece</b>              | 9.9                    | 132.0                                   | 75                               | 325                       |   | 13 regions                     |
| <b>Hungary</b>             | 10.0                   | 93.0                                    | 107                              | 3 152                     |   | 19 counties                    |
| <b>Iceland</b>             | 0.3                    | 103.0                                   | 3                                | 75                        | -   | -                              |
| <b>Ireland</b>             | 6.4                    | 84.4                                    | 76                               | 114                       |   | 8 regional authorities         |
| <b>Italy</b>               | 59.6                   | 301.3                                   | 198                              | 8 096                     | 110<br>provinces                            | 20 regions                     |
| <b>Latvia</b>              | 2.3                    | 64.6                                    | 36                               | 119                       |   | -                              |
| <b>Lithuania</b>           | 3.2                    | 65.3                                    | 49                               | 60                        | -   | -                              |
| <b>Luxembourg</b>          | 0.5                    | 2.6                                     | 192                              | 106                       | -   | -                              |
| <b>Malta</b>               | 0.4                    | 0.3                                     | 133                              | 68 local<br>councils      | -   | -                              |
| <b>Norway</b>              | 5.0                    | 385.3                                   | 13                               | 429                       |   | 19 counties                    |
| <b>Poland</b>              | 38.5                   | 312.7                                   | 123                              | 2 479                     | 314<br>counties                             | 16 regions                     |
| <b>Portugal</b>            | 10.6                   | 92.2                                    | 115                              | 308                       |   | 2 autonomous regions           |
| <b>Romania</b>             | 19.0                   | 238.4                                   | 80                               | 2 858                     |   | 41 counties                    |
| <b>Slovakia</b>            | 5.4                    | 49.0                                    | 110                              | 2 883                     |   | 8 regions                      |
| <b>Slovenia</b>            | 2.1                    | 20.3                                    | 103                              | 210                       | (58 provinces – not yet created)            |                                |
| <b>Spain</b>               | 46.2                   | 506.0                                   | 91                               | 8 117                     | 50 (+ 2)<br>provinces                       | 17 autonom. com.               |
| <b>Sweden</b>              | 9.5                    | 441.4                                   | 22                               | 290                       |   | 18 county councils + 2 regions |
| <b>The<br/>Netherlands</b> | 16.8                   | 41.5                                    | 405                              | 415                       |   | 12 provinces                   |
| <b>United<br/>Kingdom</b>  | 62.0                   | 243.8                                   | 254                              | 406                       |   | 3 devolved nations             |
| <b>Ukraine</b>             | 45.6                   | 603.6                                   | 76                               | 11 519                    | 488<br>districts                            | 24 regions                     |

Source: Dexia – CEMR, *Subnational public finance in the European Union, Summer 2012*, [http://www.eetaa.gr/enimeroseis/17-01-13/Note\\_CCCE\\_Dexia\\_EN.pdf](http://www.eetaa.gr/enimeroseis/17-01-13/Note_CCCE_Dexia_EN.pdf) (updated and completed by the authors in December 2012).





**The same sectors, governed by the same body of EU law, may be organized and regulated very differently in different Member States.**

The jurisdiction, responsibilities and resources of local public authorities are continuously evolving and are extremely varied, according to the specific administrative organization of each European country (countries can be unitary, federal or regionalized, centralized or decentralized). The same sectors, governed by the same body of EU law, may be organized and regulated very differently in different Member States of the European Union.

On these bases, we have framed four historical state “models” which impact basic public service provision in Europe (this is not a typology of European countries):<sup>5</sup>

**Centralized unitary states** (France is a typical example) traditionally define policies and norms at central level and leave less freedom of decision-making and discretionary power to the local level. Some major basic services are managed at the national level and operated by national enterprises. This centralized and national organization permits, not only a degree of unified public action, but also the concentration of resources. In some countries and/or sectors, this has yielded positive technical and economic results, explaining why this model continues today in many sectors, even if it has not been dominant since the trend towards privatization in the 1980s and 1990s. This kind of centralized organization is sometimes criticized for being rigid, enclosed, and bureaucratic, making social exchange, innovation and change difficult, as well as the adaptation of basic services to evolving needs, preferences and capacities. Central government may exercise important powers of supervision and control over local governments. Paradoxically, in some cases, the development of delegated management models of basic services, subject to the competence and responsibilities of local governments, came in response to some of their limited powers or “subordinated” position. In France, for instance, for a long

period, local governments did not have the right to engage in economic activities. Later, when they could provide industrial and commercial services, they were restricted in the management of such activities. Thus, until the end of the 2000s, local governments in France could not provide local basic services through a public company whose capital it entirely owned.

**Unitary states with strong local autonomy** in the organization and regulation of public utilities often found in the Northern Europe. Their histories and traditions explain their important degree of ‘socialization’, as well as the significant jurisdiction and responsibilities of local authorities in the field of welfare and basic services. Thus, in 2005, the expenditure of local authorities in Denmark and Sweden represented 33% and 25.1% of GDP, respectively; that is, 62% and 44.2% of all public expenditure. Health and social services often represent the most important or even the largest part of the local public budget in these systems. Furthermore, the degree of welfare services ensured in kind in these countries is much higher than in other parts of Europe, where expenditure in the field of social protection and welfare takes the form of financial allowances. While municipalities have been turning to the private sector for the provision of some services over the last two decades, social services are still mainly provided by public entities.<sup>6</sup>

**Federal states** (Austria, Germany, and Belgium) **and regionalized states** (such as Italy, Spain, the UK) are characterized by the existence of sub-national authorities which are conferred with some legislative powers, in particular regarding local basic services. However, the degree of local autonomy varies greatly among federal and regionalized states. For instance, in Germany, the 1949 Constitution established the principle of German federalism; the sharing of political and legislative powers between the federal,

<sup>5</sup> Bauby and Similie (2010).

<sup>6</sup> Bauby (2013) pp. 25-52.

the Land and local levels, according to the principle of subsidiarity (the higher level assumes jurisdiction only if it cannot be assumed by the lower level). The country's Fundamental Law guarantees municipalities' right to autonomy in dealing with all issues within their community, and they are therefore in charge of most basic services for citizens. In Germany, urban transport infrastructure (road, highway, river, sea, port and airport) is included in the definition of basic public services. A particular public service management model used in these countries is the multi-service enterprise (the *Stadtwerke*, in Germany). These permit horizontal cross-subsidization between different local services (e.g. profits from electricity or water used to finance transport services). Thus, unlike in France, where a national and sectoral equalization system has been organized in the field of electricity, with a single tariff for the whole country, in Germany, electricity services fall within the jurisdiction of local governments, which are responsible for supply and price setting.

**Central and Eastern European countries** have specific features, influenced by their transition to democracy and a market economy since 1990. They are experiencing a gradual process of more or less extended decentralization and increased involvement of sub-national authorities in the design of local, regional, national and European integration processes. Local governments are also improving their institutional capacity to collaborate in the provision of local basic services with both the private and not-for-profit sectors.

However, if “national models” ever existed, it is clear that reforms in the field of basic public services over the past 25 years have destabilized them and further complicated the situation. Hybridization is underway, meaning that paradigmatic models no longer exist.

## Specific characteristics and rationales of the eight sectors

Each of the sectors covered by this report has its own technical, economic and social characteristics, and its own specific rationale of organization and regulation.

The **water and sanitation** sectors are dependent on geographical resources and, therefore, production and supply is local and the responsibility for service provision and management tends to be situated at local level. While there are few networks or connections that cross territorial boundaries, cross-jurisdictional water basin issues have resulted in the development of more or less complex systems of authority-sharing in many countries. Water is subject to a cycle in which many different processes and factors lead to changes in its availability and quality. Water is vital for the life, environment and public health. Unlike water, **solid waste** is the result of human activities. However, it is also produced locally and thus requires local collection, and treatment. Waste can be an economic resource, which, through recycling, permits the development of new products and services (e.g. energy) and reduces a community's impact on environment. At the same time, the quantity and nature of waste are increasingly complex, and treatment and recycling cannot be always adequately carried out at local level. For this reason, the regional level has acquired an increasing role in waste management. The concept of ‘municipal waste’ (subject to municipal competence) varies from municipality to municipality and from country to country. It consists, to a large extent, of waste generated by households but may also include ‘similar’ wastes generated by public institutions and small businesses that are collected by the municipality.

**Transport** is key to local life, structuring and linking communities, giving access to



**Local governments are also improving their institutional capacity to collaborate in the provision of local basic services with both the private and not-for-profit sectors.**

<sup>7</sup> Conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=122&CM=8&DF=26/05/2013&CL=ENG

The Council of Europe, larger but less ambitious than the EU, was created in 1949. Although some countries have made declarations according to which they do not consider themselves bound by some of the provisions (cf. Article 12, paragraph 1 of the ECLSG). The perception of the legal force and the direct applicability of the Charter is also a sensitive question. Thus, some countries consider the Charter as part of, and superseding any other, domestic legislation. At the same time, in many states, a legislative intervention is needed in order to make the Charter (or some of its provisions) self-executing and directly applicable. Therefore, in general, it is understood as a set of legal principles for the interpretation, application and development of domestic law, with its legal impact varying in different countries.

<sup>8</sup> REC(90)12E of 25 April 1990 on services and infrastructures in rural areas, REC(97)7E of 1 April 1997 on local public services and the rights of their users, REC 114 (2002) on local authorities and public utilities, REC(2003)2 on neighbourhood services in disadvantaged urban areas, REC (2007)4 on local and regional public services, REC 235 (2008) Services of general interest in rural areas, a key factor in territorial cohesion policies, REC(2007)16F on measures to promote the public service value of the Internet.

resources and social, economic activities and other basic services. Transport services seek to adapt to the specific needs of each locality and its population. Their provision implies dealing with mobility, interconnection and multi-modality issues, as well the challenges associated with their environmental impact. As a consequence, in some cities, the integration of climate change objectives into the local transport policy led to the establishment of specific infrastructure for new, “green” transport modes, such as bicycles (either privately or publicly operated) shared electric car rental, and an extend use of trolley buses which run on electric power.

**Electricity** production is generally centralized, but energy resources also exist at local level. The networks and transport of electricity are organized as natural monopolies. Undisrupted regulation is needed because electricity cannot (yet) be stored and thus production and consumption must be always balanced.

Due to technological development, access to **broadband** has become increasingly important in social and economic life, as well as functioning as a route by which many other public services are accessed. Nevertheless, its development is recent, and access is unequal. Therefore, coordinated investment is still needed to ensure universal coverage.

Finally, **child care** and **elderly care** are personal services that need to be provided as close as possible to where their recipients live, if not in their homes themselves. They also function to reinforce social solidarity and cohesion between generations.

## A gradual process of Europeanization

Compared to other regions of the world, Europe has two unique features:

- On one hand, all the countries of the European continent consider that local

autonomy is a fundamental value or principle and element of “European identity”, as shown by the European Charter of Local Self-Government adopted by the Council of Europe on 15 October 1985, which has been ratified by 46 countries. The Charter has significant transnational influence. All the states covered by this chapter have ratified the Charter.<sup>7</sup>

- On the other hand, there has been a process of Europeanization of basic public services over the past 25 years. Basic public services are subject to the shared jurisdiction of the EU and its Member States, governed by the principle of subsidiarity. This means that the Union takes responsibility only if it is more effective than each Member State acting separately. This specific characteristic of the process of European integration is reinforced by the Lisbon Treaty, in force since 1<sup>st</sup> December 2009. Europe is the only area of the world to have developed shared competence and a complex system of multilevel governance in these sectors.

In addition, the Committee of Ministers,<sup>8</sup> the Congress of Local and Regional Authorities,<sup>9</sup> and the European Conference of Ministers responsible for Spatial/Regional Planning<sup>10</sup> of the Council of Europe have adopted a series of Recommendations and Resolutions regarding public services/services of general interest. According to the Committee, “a *local or regional public service* is a service in respect of which, pursuant to a broad social agreement expressed usually through a decision of a competent democratic public authority, overall continuity and individual access are ensured by a local or regional public authority through direct provision (through the local or regional public sector) and/or through the financing of its provision by third parties and/or by establishing specific regulations which go beyond those which apply to other services” [REC(2007)4].

## Europeanization and the EU “Acquis”

For the last 60 years, a process of European integration has been taking place. However, the Europeanization of basic public services only developed after the adoption of the Single European Act of 1986. Until then, a consensus existed between Member States that each country would define, organize and finance its basic public services according to its policies, traditions, institutions, culture, social movements and power relations.

For us,<sup>11</sup> the concept of “Europeanization” refers to the transition from traditional national frameworks for defining and organizing basic public services to shared responsibilities between the EU and its Member States. The Europeanization of basic public services is both a *bottom-up* and a *top-down*, gradual, multi-actor, contradictory process. Europeanization involves a difficult and evolving balance between the common EU interest and the interrelated national interests of each Member State. Europeanization is not a linear process, but a charged and difficult one in which the interests and strategies of all actors play a role.

The objective of the Single Market, based on the four fundamental freedoms of movement (of persons, goods, services and capital), led European institutions to start the Europeanization process of “services of general economic interest” (SGEI), at that time limited to the communications, transport and energy sectors, that is, to major infrastructure networks needed to ensure freedoms of movement. However, in many EC/EU Member States, basic services under the competence of local authorities were not directly subject to this Europeanization process. The Europeanization of these sectors was based on strategies of liberalization, progressive introduction of competition, and market logic. However it did not define clear European objectives or norms to ensure the European “economic, social, and territorial cohesion.”<sup>12</sup>

Since then, European debates and initiatives tried to balance liberalization and the general interest and to define universal and/or public service obligations for some sectors at EU level.

The Lisbon Treaty made several major changes in the field of basic public services (see Annex 5 of Gold III, in particular Article 14 TFEU, the legal force of the Charter of Fundamental Rights, and a Protocol annexed to the treaties). These provisions are complementary and have removed legal uncertainties surrounding services of general interest, ensuring they meet their objectives and guaranteeing the diversity of their forms of organization. More generally, the Lisbon Treaty reinforces the role and prerogatives of the states and their sub-national public authorities. This is essential for the definition, organization, commissioning and financing of public services.

Today, there is a European *Acquis* (body of shared law) in the field of public services that defines the framework for the organization of basic services and gives clear guarantees to local governments.<sup>13</sup>

The *Acquis* can be summed up as follows (see Box 5.1):

In Europe, basic public services, or services of general interest, are at the heart of multiple and complex tensions between:

- balancing the realization of an idealized common internal market with the fact that basic public services are anchored in specific local areas that have their own needs and objectives;
- public service obligations, in general and for each precise sector, to carry out “particular tasks” defined by public authorities to meet the general interest objectives they pursue;
- fulfilling public service obligations, in general and for each precise sector, to carry out “particular tasks” defined by public authorities to meet general interest objectives;



**“Europeanization” refers to the transition from traditional national frameworks for defining and organizing basic public services to shared responsibilities.**

<sup>9</sup> Resolution 87 (2000) on the role of local and regional authorities in the provision of social services, Recommendation 114 (2002) on local authorities and public utilities and Resolution 140 (2002) on local authorities and public utilities, Resolution 252 (2008) Services of general interest in rural areas, a key factor in territorial cohesion policies.

<sup>10</sup> Draft European Charter on Access to Essential Goods and Services in the Context of Spatial Planning of the European Continent (1st version of 7 March 2008) and CEMAT Resolution N° 1 on the contribution of essential services to the sustainable spatial development of the European continent.

<sup>11</sup> Bauby (2011) p. 18.

<sup>12</sup> As expressed in the Treaty on the European Union.

<sup>13</sup> Duperon (2011).



- implementing the subsidiarity principle in the context of shared authority between European, national, regional and local levels in order to offer optimal public services;
- working towards the objective of economic, social and territorial cohesion of the EU, particularly in relation to Article 174 TFEU (see Annex 5).<sup>14</sup>

These trends and the relationships between them can be synthesized in a “Magic Square of Services of General Economic Interest” (see page 195), which will continue to mark the future of public services in the European Union in their inextricable unity and diversity.



#### Box 5.1 Service of General Interest (SGI): European Acquis

- Member States (national, regional, local authorities) have the general competence in “providing, commissioning and organizing” SGI, as well as financing Services of General Economic Interest (SGEI);
- European institutions have the same competence for European services that are necessary to accomplish EU objectives;
- As concerns non-economic services of general interest (NESGI), the rules of competition and internal market do not apply; NESGI are only subject of fundamental principles of the EU (transparency, non-discrimination, equal treatment, proportionality);
- As for services of general economic interest, public authorities must clearly define their “particular task” (principle of transparency);
- On that basis, they may define appropriate means for the proper accomplishment of the “particular task” (principle of proportionality), including, if it is necessary and proportionate, aids and subsidies, exclusive or special rights;
- Member states have free choice of management mode: internal, in-house, delegated, etc.;
- These definitions should clearly establish the objectives of “a high level of quality, safety and affordability, equal treatment and the promotion of universal access and of user rights”;
- Rules of competition and internal market apply only if they does not obstruct the performance, in law or in fact, of their particular tasks;
- Member states have free choice of ownership of enterprises (principle of “neutrality”);
- In all cases, abuses may appear because of an “evident error” that the Commission may raise, under the control of the European Court of Justice.

<sup>14</sup> “In order to promote its overall harmonious development, the Union shall develop and pursue its actions leading to the strengthening of its economic, social and territorial cohesion. “[...] [T]he Union shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions ... Among the regions concerned, particular attention shall be paid to rural areas, areas affected by industrial transition, and regions which suffer from severe and permanent natural or demographic handicaps such as the northernmost regions with very low population density and island, cross-border and mountain regions.”



## 5.2

### Institutional frameworks: the responsibilities of local authorities

In Europe, basic public services continue to be defined, organized, commissioned, financed, controlled and regulated in diverse political, administrative, economic, territorial, demographic and cultural conditions. European law recognizes Member States' jurisdiction, and the essential role and the wide discretion of national, regional and local authorities in providing, commissioning and organizing services of general economic interest as closely as possible to the needs of the users, with respect for the Treaties.<sup>15</sup> Moreover, the provisions of the Treaties do not affect, in any way, the powers of Member States to provide, commission, and organize non-economic services of general interest.<sup>16</sup>

As noted in the Introduction, local public authorities in Europe, in particular municipalities, have jurisdiction over some basic public services, and assume responsibilities and engage resources in their provision and management. Across Europe, the local public services are an essential dimension of the local autonomy that is at the centre of the European social model.

However, even if we can identify some similar areas of jurisdiction, in the sense

<sup>15</sup> Article 14 TFEU and Article 1 of the Protocol 26 on services of general interest annexed to TEU and TFEU.

<sup>16</sup> Article 2, Protocol 26 on services of general interest annexed to TEU and TFEU.



**National (and sub-national) traditions and cultures are key elements of European integration.**

that local authorities play a role in similar sectors, when specific sectors are considered, we have found a great variety of situations, ranging from: compulsory powers and responsibilities to voluntary responsibilities; from no responsibilities (e.g. in Cyprus, municipalities have no jurisdiction over transport) or a very limited jurisdiction in some fields (e.g. energy) to almost complete responsibility; from general responsibilities to define, organize, commission and finance basic public services and to control their performance to shared, limited, or no responsibility for aspects of local services including staff management, wages, work relations; from multi-actor democratic governance to a limited or no role for users, civil society, private actors and staff.

When considering the levels of governance involved in the design, delivery and monitoring of basic public services we also found differences by countries and sectors, municipal and inter-municipal levels, sub-national decentralized or deconcentrated levels, and national or supra-national levels. Each government level exercises different functions and responsibilities (regulation, planning, strategy, provision, or control) and exhibits different kinds of relationships (execution, consultation, co-

operation, information, or representation) between institutions.

During the current economic and financial crisis, decentralization and metropolization processes have taken place in some European countries, while, in others, recentralization (in part due to, or claimed to be caused by, the crisis) has been observed. These trends may vary across time, space and sectors.

The urban-rural divide must also be considered, less from the point of view of legal responsibilities, and more in terms of access and local capacities to meet users' needs (see Table 5.2.).

National (and sub-national) traditions and cultures are explicitly recognized by the principle of subsidiarity not as obstacles, but as key elements of European integration. This principle (see *supra*), complemented by the Community principle of proportionality to the objectives pursued, has been further strengthened by the Lisbon Treaty.

In almost all European countries, the responsibility for **water and sanitation** management falls under the jurisdiction of municipalities or other local institutions, which decide to either manage such services themselves (*in-house*), to delegate their

**Table 5.2 Population by urban-rural typology (2011) (% of total population)**

|                     | EU27 | AT | BE | BG  | CY  | CZ | DK | EE | FI | FR | GE | GR | HU | IE |
|---------------------|------|----|----|-----|-----|----|----|----|----|----|----|----|----|----|
| <b>Urban</b>        | 41   | 35 | 68 | 17  | -   | 24 | 22 | -  | 27 | 36 | 43 | 47 | 17 | 27 |
| <b>Intermediate</b> | 35   | 27 | 24 | 45  | 100 | 43 | 36 | 52 | 31 | 36 | 40 | 11 | 36 | -  |
| <b>Rural</b>        | 23   | 39 | 9  | 38  | -   | 33 | 42 | 48 | 43 | 29 | 17 | 43 | 47 | 73 |
|                     | IT   | LV | LT | LU  | MT  | NL | PL | PT | RO | SK | SI | SP | SE | UK |
| <b>Urban</b>        | 36   | 49 | 26 | -   | 100 | 71 | 28 | 49 | 11 | 12 | 26 | 49 | 22 | 71 |
| <b>Intermediate</b> | 44   | 13 | 31 | 100 | -   | 28 | 34 | 15 | 44 | 38 | 31 | 38 | 56 | 26 |
| <b>Rural</b>        | 20   | 38 | 43 | -   | -   | 1  | 38 | 36 | 46 | 50 | 43 | 13 | 22 | 3  |

Source: Eurostat, News release 51/2012, 30 March 2012, [http://epp.eurostat.ec.europa.eu/cache/ITY\\_PUBLIC/1-30032012-BP/EN/1-30032012-BP-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/1-30032012-BP/EN/1-30032012-BP-EN.PDF)

management or to completely privatize them (as in England and Wales).

Municipalities are also generally responsible for municipal **solid waste** collection and transfer. Recycling, treatment and disposal may fall under the jurisdiction of different authorities. There are also differences in the responsibilities of different levels of government, depending on waste type (hazardous or non-hazardous, municipal, industrial, agricultural, commercial, or construction). The (re)organization of waste services has been influenced, in some cases, by the increasingly rigorous environmental standards imposed by EU law. However, this does not seem to have precluded very different implementation of waste management, collection coverage, sufficient and appropriate treatment and the capacity and option for treatment (treatment according to the waste hierarchy principle, with some countries still being highly dependent on landfilling<sup>17</sup>), the status of recycling<sup>18</sup> and energy recovery, the existence and quality of waste planning, the use of pay-as-you-throw systems<sup>19</sup> (economic instrument to implementing the polluter-pays principle), compliance with technical requirements, progress in decoupling waste production from growing consumption, and the implementation of waste prevention in environmental policies (environmentally/sustainable management of waste).

In the context of the decentralization of transport services, **urban transport** generally appears as a responsibility of municipalities (in particular in cities and metropolitan areas). This is particularly significant, given the fact that about 70% of the European population lives in urban areas. In most European countries, urban transport was traditionally managed by local governments. Some exceptions should be noted, such as the reorganization of the sector in Central and Eastern European countries, where municipalities only took over responsibility for public transport after 1989, at the

same time as many of them were confronted with a dramatic fall in public transport use by the population. In Italy, the responsibility is delegated by regions to provinces and municipalities. In the Netherlands, seven urban regions are responsible for all means of transport. At central level, in most countries one or several ministries and/or agencies have executive and/or regulatory competences. Sub-national authorities are often responsible for regional transport.

In most European countries, **electricity** and gas services in the second half of the 20th century were organized by integrated enterprises – most often public – of production-transport-distribution-supply, which had national or regional exclusive rights. The responsibilities of local authorities in these areas are still limited in most countries, despite trends towards the territorialization of energy policies. However, in some European countries,<sup>20</sup> municipalities are the main vehicles for EU and national policies and strategies in the field of electricity, and transition to renewable energies may reinforce their role still further. Some municipalities have already undertaken the production and/or provision of renewable energies by harnessing energy sources in their regions.

In a more general perspective, until now, the directives or regulations for harmonization within the EU set common rules, but they conferred their “regulation” to national authorities in each Member State. This generates real differences in the implementation of common rules and standards.

## Framing European rules

In each sector, the process of Europeanization of basic public services led to common rules that frame the “free administration” powers of national, regional and local authorities. However, transversal rules were also adopted, in particular impacting

<sup>17</sup> Landfill rates range from less than 0.5% to 100%, with some countries banning landfilling and others with restrictions which may or not be enforced. Nevertheless, in many countries important changes have occurred in the last twenty years with Greece and Ireland passing from 100% landfilling in 1990 to 82% and 57%, respectively, in 2010. Other falls in landfill use include: UK from 90% to 49%, Italy from 80-85% to 51%, Finland from 78% to 45%, Spain from 74% to 58%, Germany from 70% to less than 0.5%, France from 52% to 31%, Netherlands from 52% to less than 0.5%, Belgium from 49% to 1%, Austria from 48% to 1%, Sweden from 35% to 1% and Denmark from 15% to 3%. For 1990 data, see: Nicolas Buclet, Olivier Godard, “The evolution of Municipal Waste Management in Europe: How different are national regimes”, October 2000. For 2010 data, see Eurostat. For an overview of the current situation, see BiPRO et al., Screening of waste management performance of EU Member States, Report for the European Commission, 2 July 2012, accessed 11 July 2013, [http://ec.europa.eu/environment/waste/studies/pdf/Screening\\_report.pdf](http://ec.europa.eu/environment/waste/studies/pdf/Screening_report.pdf)

<sup>18</sup> In 2010, according to Eurostat, the rate of municipal waste recycled ranged from 0% to 70%. [http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php?title=File:Municipal\\_waste\\_treated\\_in\\_2009\\_by\\_country\\_and\\_treatment\\_category,\\_sorted\\_by\\_percentage,\\_2011.PNG&filetimestamp=20110708153221](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Municipal_waste_treated_in_2009_by_country_and_treatment_category,_sorted_by_percentage,_2011.PNG&filetimestamp=20110708153221)

<sup>19</sup> This refers in particular to the choice of container size (volume), the number of sacks set out for



### Box 5.2 Current state of the European law in the field of:

#### Water and sanitation

Since the 1970s, the European Community has issued several directives concerning water, chiefly with an eye to the protection of public health and the environment. A distinction can be made between three phases:

- a first generation of directives (from 1973 to 1988) concerned the protection of the quality of water used for human activities (1980 directive relating to the quality of water intended for human consumption, amended in 1998);
- a second generation of directives (from 1988 to 1995), centring on the prevention of pollution (in particular a directive of 1991 concerning urban waste-water treatment that set an agenda for the construction of wastewater treatment plants in all urban areas);
- the third wave from 1995 led, in particular, to the Framework Water Directive 2000/60/EC, which laid down the general principles of production and management of water and updated the provisions concerning the quality of water and protection against pollution by repealing a part of the previous legislation concerning water quality and the protection against pollution. At the same time, this directive introduced the principle of full-cost recovery from 2010 onwards.

A Communication from the European Commission [COM (2012) 673 A Blueprints to Safeguard Europe's Water Resources] of 14 November 2012 emphasises several key themes for further EU policy and action securing the availability of good-quality water for sustainable and equitable water use.

#### Solid waste

In the framework of EU primary law, only one explicit provision refers to waste: "measures affecting land use, with the exception of waste management" [Article 192, paragraph 2 (b) TFEU, Title XX Environment]. On this basis, EU waste legislation was developed as one of the EU environmental policy priorities.

The current European waste policy is based on the concept of the "waste hierarchy"<sup>21</sup> and the very complex framework includes both transversal legislation<sup>22</sup> and the legislation regarding waste treatment and disposal.<sup>23</sup>

#### Urban transport

Regulation n°1370/2007 of 23 October 2007 [which the European Commission has recently proposed reviewing – see COM (2013)28] states that "unless prohibited by national law, any competent authority (...) may decide to provide public passenger transport services itself or to award public service contracts directly to a legal distinct entity over which the competent local authority (...) exercises control similar to that exercised over its own departments [in-house operator]" (Article 5). "Any competent authority which has recourse to a third party other than an internal operator, shall award

collection, the frequency with which a container is set out for collection and the weight of material collected in a given container. For most countries, these systems only reach sub-national coverage.

<sup>20</sup> See country sheets at [www.uclgold.org/](http://www.uclgold.org/)

<sup>21</sup> Waste prevention->re-use->recycling->recovery of waste that cannot be prevented (e.g. energy recovery) -> discharge. According to Eurostat, for 2010, the rate of municipal energy waste recovery ranges from 0% to 54% (with eight countries having no recovery at all). As for disposal (waste deposit onto or into land and incinerated without recovery), the rate of municipal waste disposed ranges from 0.4% to 100% in 2010.

<sup>22</sup> Waste Framework Directive (whose revision is planned for 2014), Directive on dangerous waste, regulation on waste transfer, etc.

<sup>23</sup> Directives on discharge and incineration, management of specific waste streams, the packaging directive, etc. There are more than 200 texts. See <http://ec.europa.eu/environment/waste/legislation/index.htm>

public service contracts on the basis of a competitive tendering procedure, except in the cases specified in paragraphs 4 [for contracts whose value or distance concerned are less important], 5 [in case of emergency] and 6 [rail transport, with the exception of metro or tramways or other track-based modes.]”

The Regulation also regulates the award of contracts and establishes the circumstances which require competition. Thus, it states that, “where a competent authority decides to grant the operator of its choice an exclusive right and/or compensation, of whatever nature, in return for the discharge of public service obligations, it shall do so within the framework of a public service contract.” This public service contract shall clearly define public service obligations with which the operator must comply as well as the geographical areas concerned and the agreed counterparties. (Articles 3 and 4). According to Recital 23, “Competent authorities should not be permitted to split up contracts or networks in order to avoid tendering.”

### **Energy and electricity**

The Lisbon Treaty introduced energy as a new common EU policy (Title XXI, Article 194 TFEU).

In the framework of the internal market and the objectives of improving the environment and solidarity between Member States, it aims to ensure the functioning of the internal market, promote energy efficiency, energy savings, renewable energy development, and the interconnection between energy networks. Member States continue to have the power to determine the conditions of operation of their energy sources, their choice between different energy sources and the general structure of their energy supply.

In this sector, European rules aim at developing a competitive, safe and sustainable market in electricity. They are based on the principle of a free choice of provider for each user, with networks aiming at the realization of this objective.

In the field of public and universal service obligations, Article 3 of the different Directives, enriched from the first electricity directive (of 19 December 1996) and the third directive (of 13 July 2009), defines the universal service as “the right to be supplied with electricity of a specified quality within their territory, at reasonable, easily and clearly comparable, transparent and non-discriminatory prices” (paragraph 3). “Member States may impose on undertakings operating in the electricity sector, in the general economic interest, public service obligations which may relate to security, including security of supply, regularity, quality and price of supplies and environmental protection, including energy efficiency, energy from renewable sources and climate protection” (paragraph 2). National consumers shall have an equal access to electricity enterprises; the protection of vulnerable consumers is introduced, too; clients shall have access to a range of information concerning the nature of electricity which is available to them; the States must impose actions that promote social and economic cohesion, environmental protection and the fight against climate change, and they shall inform the Commission on the measures they take to implement the directive.



**The EU leaves Member States and sub-national governments with the free choice to decide the management model for basic public services.**





### The process of Europeanization led to the liberalization of the production and supply of electricity.

<sup>24</sup> EP Resolution of 18 February 1982 on the situation and problems of the aged in the European Community, EP Resolution of 10 March 1986 on services for the elderly and EP Resolution of 14 May 1986 on Community measures to improve the situation of old people in the Member States of the Community.

<sup>25</sup> See in particular two Communications concerning the health care and the care for the elderly [COM(2001)723, The future of health care and care for the elderly: guaranteeing accessibility, quality and financial viability and COM(2002)774, “Health care and care for the elderly: Supporting national strategies for ensuring a high level of social protection”], as well as the Council Recommendation 92/241/EEC of 31 March 1992 on childcare.

<sup>26</sup> See, in particular, COM(2006) 177 of 26 April 2006 and COM(2007) 725 of 20 November 2007.

<sup>27</sup> Bauby (2013).

the funding of public services (see part III) and public procurement regimes.

The EU leaves Member States and sub-national governments with the free choice to decide the management model for basic public services. The EU is neutral on the issue of the ownership of basic service providers (Art. 345 TFEU).

At the same time, the rationale of the process of Europeanization is based on different policy approaches. While, for twenty years, the fields of electricity, telecommunications, postal services and transport experienced a process of liberalization, the water and sanitation sectors have been subject to a process of Europeanization, not on the basis of the accomplishment of the internal market rules, but on the framing of ambitious and legally binding quality standards based on the protection of the environment and public health (see Box 5.2).

There are also public policies regarding **solid waste** in Europe to meet sanitary, hygiene and health needs. They have seen a renewed expansion due to growing environmental awareness and increasing of environmental standards.

EU legislation imposes a series of requirements, especially with regard to municipal waste management, whose implementation varies greatly between Member States.

From the end of the 1980s, when **urban transport** became the subject of European transport liberalization, urban transport policy became a progressively a multi-level issue, involving urban, regional national and European institutions. Current relevant EU initiatives are those related to common transport, environmental and cohesion policies.

Since the 1990s, the process of Europeanization, which was based on the creation of internal markets, led to the liberalization of the production and supply of **electricity**, without undermining transport-distribution network monopolies, and to separate

activities, while guaranteeing public service or universal service obligations.

There is no public service obligation at EU level to provide **broadband access**. The Directive 2002/22/CE only requires Member States to ensure access at a fixed location on a reasonable request. The connection should be “capable of supporting voice, facsimile and data communications at data rates that are sufficient to permit Internet access, taking into account prevailing technologies used by the majority of subscribers and technological feasibility” (Article 4). Nevertheless, the broadband sector is being explored in the context of debates on the issue of the extension of universal service to other telecommunication fields.

At the moment, European countries, including EU Member States, continue to have powers and responsibilities for **childcare and elderly care** services. There is no EU policy in this field. However, in particular in the last two decades, following the European Parliaments resolutions concerning the situation of the elderly,<sup>24</sup> the Community has increased its actions in this field (see Box 5.3).<sup>25</sup>

More generally, the Commission has started to develop a Community approach on “social services of general interest,”<sup>26</sup> which includes many elderly care and child care services.<sup>27</sup>

### A general trend towards the sharing of powers and responsibilities

Given their function – meeting the needs of inhabitants, citizens and of each community – basic public services are rooted in local areas. They adapt to local realities, their governance is part of the global governance of societies, and is particularly linked with urban governance and development. At the same time, they integrate local specificities, structure regions, create networks

between places, and connect the local and the global. The powers and responsibilities of municipalities are usually integrated in regional, national and European policies, whose (decentralized) evolution cannot be managed without local and sub-national authorities (e.g. environmental and climate change policies impacting all water, sanitation, waste, energy and transport services) and acknowledging the “mutual (across



### Box 5.3 Current state of the European law in the field of:

#### Elderly care and child care

The *Community Charter of the fundamental social rights of workers*, adopted by the Heads of State and of Government of eleven Member States at the European Council meeting in Strasbourg on 9 December 1989, states in particular in its section entitled ‘Elderly Persons’:

“According to the arrangements applying in each country: 24. Every worker of the European Community must, at the time of retirement, be able to enjoy resources affording him or her a decent standard of living. 25. Every person who has reached retirement age but who is not entitled to a pension or who does not have other means of subsistence must be entitled to sufficient resources and to medical and social assistance specifically suited to his needs.”

#### *Charter of Fundamental Rights of the European Union TITLE III –EQUALITY*

**Article 25 - The rights of the elderly.** The Union recognises and respects the rights of the elderly to lead a life of dignity and independence and to participate in social and cultural life.

**Article 24 - The rights of the child.** 1. Children shall have the right to such protection and care as is necessary for their well-being. They may express their views freely. Such views shall be taken into consideration on matters which concern them in accordance with their age and maturity. 2. In all actions relating to children, whether taken by public authorities or private institutions, the child’s best interests must be a primary consideration. 3. Every child shall have the right to maintain on a regular basis a personal relationship and direct contact with both his or her parents, unless that is contrary to his or her interests.

#### Current EU strategies on childcare

Currently, in the framework of the European Strategy for Growth and Employment, following the second annual Spring meeting of the European Council on the economic, social and environmental situation in the Union (European Council, 15 and 16 March 2002, Barcelona), the Council adopted the “Barcelona objectives”. In the Presidency Conclusions, the Council stated that “Member States should remove disincentives to female labour force participation and strive, taking into account the demand for childcare facilities and in line with national patterns of provision, to provide childcare by 2010 to at least 90% of children between 3 years old and the mandatory school age and at least 33% of children under 3 years of age.” (Paragraph 32)<sup>28</sup>



**The powers and responsibilities of municipalities are usually integrated in regional, national and European policies.**

<sup>28</sup> See also the EU 2020 Strategy, COM(2010)2020 A strategy for smart, sustainable and inclusive growth.

<sup>29</sup> A survey conducted in the member states of the Council of Europe in 2006 across 29 European countries showed that in 57% of participating countries only one ministry is responsible for solid waste related issues. The authors of the report remarked on the concentration of waste responsibilities which in preceding decades were split between several ministries or central agencies. See Preda (2007).

<sup>30</sup> The 2006 survey led by the Council of Europe has clearly showed that unlike EU Member States, where aspects related to environment enjoy legal recognition and enforcement, national planning is missing in some other European countries.

<sup>31</sup> See, for instance, the Polish case presented in World Bank (2004).

<sup>32</sup> According to the European Commission, “‘Governance’ means rules, processes and behaviour that affect the way in which powers are exercised at European level, particularly as regards openness, participation, accountability, effectiveness and coherence” [COM(2001) 428 European Governance – A White Paper]

<sup>33</sup> More generally, European institutions regularly express their commitment to the principle of “integrated approach” to ensure improved policy coherence. Moreover, Article 99 of the draft Common Provisions Regulation on EU structural funds [COM(2011)615 Title II, Chapter IV-Territorial development], provides for an integrated territorial investment instrument and, within this framework, a possible delegation of tasks to one or more local authorities, regional bodies or non-governmental organizations.

and within) dependence” of all levels of public authority.

Overall, there is a general trend towards the sharing of powers and responsibilities between different levels of government, and between different institutions in each country and region, though differences exist in the intensity, scale and sectors of these interactions. This sharing of authority may be vertical or horizontal, inter-sectoral, or some combination of all three dimensions. Thus, in Europe, basic public services are increasingly subject to *multi-level governance*.

For instance, the key actors in solid waste management include central governments (through the environment ministry or agency, and other government agencies with varying degrees of executive responsibilities), sub-national and local authorities.<sup>29</sup> Planning responsibilities<sup>30</sup> generally fall under the jurisdiction of central authorities, with the exception of Italy, Netherlands and Germany, which assign waste planning to the regions, provinces and the 16 *Länder*. In some countries, sub-national authorities have responsibility for establishing regional waste strategies. Sometimes this results in a lack of coherence among different government levels and may lead to lack of clear sector policy guidelines for municipalities.<sup>31</sup>

The European Union is increasingly promoting approaches of “multi-level governance,”<sup>32</sup> to take into consideration local and national diversity and differences, by opening up decision-making processes to new actors. This includes local and regional authorities after the creation, by the Maas-tricht Treaty, of the Committee of Regions, the consultative body representing sub-national authorities (i.e. local and regional) in the EU legislative and decision-making process, and the recognition of these authorities by the Lisbon Treaty.

For the Committee of the Regions, multi-level governance means “*coordinated*

*action* by the European Union, the Member States and local and regional authorities, *based on partnership* and aimed at drawing up and implementing EU policies. It leads to *responsibility being shared* between the different tiers of government concerned and is underpinned by all sources of democratic legitimacy and the representative nature of the different players involved. By means of an *integrated approach*,<sup>33</sup> it entails the *joint participation* of the different tiers of government in the formulation of Community policies and legislation, with the aid of *various mechanisms* (consultation, territorial impact analyses, etc.)”. The Committee has stated that “in the policy fields where the European Union does not have explicit responsibility but where Community policy does have an effect, such as housing policy and large segments of services of general interest, *multi-level governance is a tool* which enables the cross-cutting nature of these fields to be seen and makes it possible to *transcend an overly rigid interpretation of the division of responsibilities in order to reach common objectives* whilst maintaining due regard for the constitutional and administrative diversity of the respective Member States”. “The concept of multilevel governance (...) has the capacity to counter negative trends in relation to devolution” and “ensures that all levels of governance cooperate in making decisions and exercising powers.”<sup>34</sup> Therefore, the Committee has affirmed its “intention to develop an EU Charter on Multilevel Governance.”

The basic public service sectors are interlinked and require co-ordination with complex sectoral policies in areas such as climate, urban planning, local and regional development.

Furthermore, technological, quality, security, environmental and health protection challenges have led to some basic public services issues being tackled above local level. At the same time, the progressive process of Europeanization has led

to the definition of a number of rules and norms that frame the activities of local governments.

For instance, in the field of water and sanitation services, water cycle issues have required a reconsideration of catchment areas and the creation of new institutions. A similar approach has been developed in the field of waste management.

A recent study on water public governance led by OECD in some of its member states,<sup>35</sup> revealed a plethora of water stakeholders at basin, municipal, state, national and international level. It revealed cases of the hyper-fragmentation of roles and responsibilities, different financial and technical capacities, asymmetry of information, different regulatory and institutional and integrity frameworks and, therefore, a series of challenges in managing interdependencies across policy areas and between levels of government, both horizontally and vertically.

At regional and local level, a variety of entities are involved in water policy making. The institutional architecture can be more complex at metropolitan level due to the creation of metropolitan-wide governance mechanisms. For their part, local governments have responsibilities for water resources and water-wastewater supply (including the operation and maintenance of infrastructure, metering, billing) through which they implement a variety of policy aims (reduction of water consumption and energy use for water delivery, prevention of water system infiltration and disruption, etc.).

The study noticed that “there is no one-size-fits-all answer, magic blueprint or panacea to respond to governance challenges in the water sector, but rather a plea for home-grown and place-based policies integrating territorial specificities and concerns.”

It would be futile to attempt to detail all powers and responsibilities in the field of basic

public services in each of the 31 countries of this study, given on-going reforms and experiments with multi-level governance.

## Defining appropriate areas and organizing authorities

Increasingly, basic public service issues have implications beyond the exclusive domain of local public authorities, and have become the subject of multi-level governance.

Multi-level governance implies the development of cooperative relationships and partnerships between stakeholders, the definition of appropriate geographical area of each service or task and, on that basis, the establishment of “organizing authorities” for basic public services. Organizing authorities do not have exclusive responsibility for service provision; rather, they are tasked with coordinating the links between all relevant stakeholders.

This is how, for instance, important reforms regarding the organization and regulation of water services have been undertaken in Spain and the Netherlands:

**Spain:** Water resources fall within the jurisdiction of the central State (Ministry of Environment, Rural and Marine Environment and Water Directorate). The National Water Council plays an advisory role in water planning (national and basin plans). At basin level, the management of water resources (planning, construction and operation of major water infrastructures, quality monitoring, inspection, etc.) falls within the jurisdiction of a basin agency, which also plays an important role in determining the framework for the provision of water and sanitation services. In some situations, water management competence belongs to Autonomous Communities. The provision of water services is the responsibility of municipalities and local entities, which may organize their provision either through a municipal public company, an inter-municipal



**Organizing authorities do not have exclusive responsibility for service provision; rather, they are tasked with coordinating the links between all relevant stakeholders.**

<sup>34</sup> See Committee of Regions, Draft Opinion on Devolution in the European Union and the place for Local and Regional Self-government in the EU Policy Making and Delivery, 100th plenary session, 11-12 April 2013, Rapporteur: Prof. Franz Schausberger (Land of Salzburg, Austria).

<sup>35</sup> OECD (2011).



cooperation, or concessions to mixed or private companies. In fact, Spain is one of the few EU countries where the management of water services is largely delegated to private operators.

**Netherlands:** Water management is in the hands of five different levels of government: the central government, the provinces, the 25 regional water authorities or *Waterschappen* (there were 2500 in 1945) the municipalities and water companies. Water boards are important institutions as about one quarter of the country lies below sea level. They are public decentralized bodies (with their own elected representation and taxation powers) and are the oldest democratic institution in the Netherlands, with elected executive councils dating back to the Middle Ages. The chair of the executive committee is appointed by the central government. Their regulatory power is limited to water (dams, canals, water purification, etc.).<sup>36</sup> The sector is characterized by vertically integrated regional monopolies and the management of water production, distribution and supply is undertaken by a single operator. Drinking water may only be supplied by approved companies; operators other than water supply companies are prohibited from supplying drinking water to households. Due to the specific characteristics of the drinking water supply sector, the need to guarantee quality, public health and security of supply, there is currently no competition in the sector and no rules allowing third party access to the network. Operators, regardless their legal status (most are private companies) must be owned by public authorities (mostly provinces, water authorities or municipalities). The multi-level structure of water management has also led to numerous water charges which are mostly set on a cost-plus basis and vary significantly by region.<sup>37</sup> The Interest-Pay-Principle ensures that all relevant stakeholders participate in decision-making regarding water

management.<sup>38</sup> In 2011, the Administrative agreement on water affairs was signed by all government tiers and the drinking water companies. With this agreement tasks and responsibilities are further clarified. The national government is responsible for policies on national water safety and fresh water supply. The provinces are responsible for policies on regional water management and safety, ground water and drinking water. The regional water authorities, or water boards, execute water safety measures and the operation and maintenance of the water safety infrastructure. They are in charge of wastewater treatment. Municipalities are responsible for the collection and transport of wastewater, rainfall and excess groundwater. Drinking water companies are responsible for the treatment and distribution of drinking water. The 2011 agreement has spurred regional cooperation between municipalities and water boards in the synchronization of investments and the operational management of the wastewater chain and its infrastructure, in order to enhance efficiency and quality and limit vulnerability.

### Combining and converging levels, “self-government” and solidarity

Converging public action from micro-local to European level in a non-hierarchical way to combine self-government, subsidiarity *and* solidarity is a challenge in which national governments continue to play a crucial role. The challenge is to combine “self-government,” subsidiarity *and* solidarities.

In its Communication on the Economic and Monetary Union (EMU) of 30 November 2012,<sup>39</sup> the European Commission defines two fundamental principles of multi-level governance: “democratic legitimacy as a cornerstone of a genuine EMU needs to be based on two basic principles. First, in multilevel governance systems, accountability should be ensured at that level where

<sup>36</sup> The Netherlands are may be the first country that has developed specific forms of public services (organic meaning) through the water authorities (*waterschappen*) whose origins back in the Average Age, before the creation of the Dutch State. Ziller (2001) p. 197.

<sup>37</sup> OECD (2012) p. 24.

<sup>38</sup> OECD (2012) p. 47.

<sup>39</sup> COM(2012) 777 “A blueprint for a deep and genuine economic and monetary union. Launching a European Debate.”



the respective executive decision is taken, whilst taking due account of the level where the decision has an impact. Second, in developing EMU as in European integration generally, the level of democratic legitimacy always needs to remain commensurate with the degree of transfer of sovereignty from Member States to the European level.”

The emphasis on the “self-government” of local authorities and the implementation of the subsidiarity principle can lead to rivalries between levels, uneven development, and growing discrepancies in service outcomes. Multi-level governance does not imply competition between regions or between actors; rather, it involves developing mechanisms for them to collaborate, and building solidarity by linking levels and projects. This requires the participation of all stakeholders, allowing them to express their expectations and needs, to ensure

open, public debate, and to propose alternative solutions, strategies and choices. On these bases, public authorities have essential responsibilities in decision-making, prioritization, and arbitration.

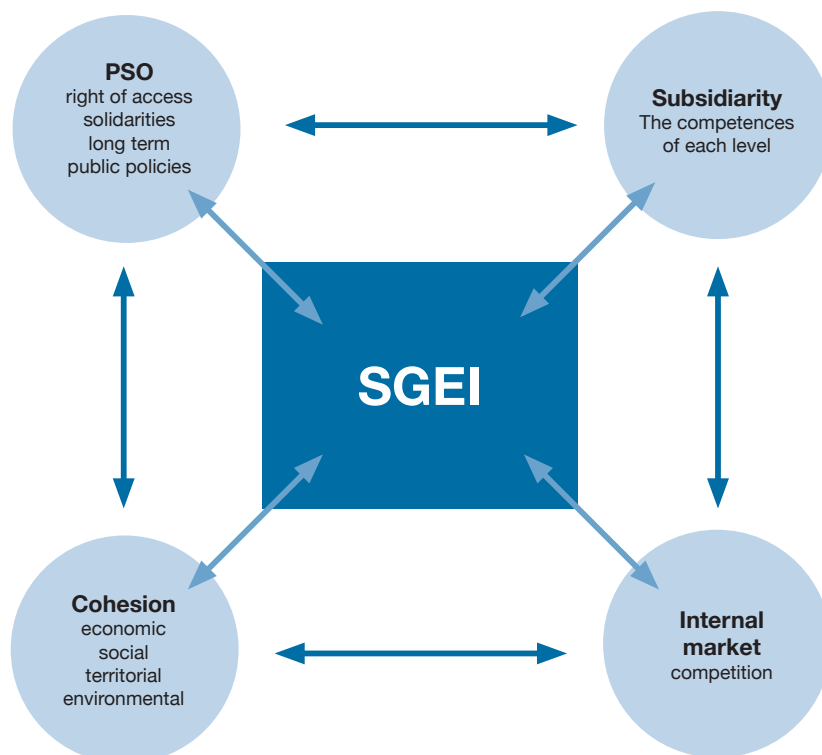
EU cohesion policy also offers some examples and lessons in this respect, as it has established a framework for multi-level governance (based, in particular, on partnership and complementarity). According to Hooghe and Marks, “the concept of multi-level governance, ... was first developed by academic scholars to explain cohesion policy.”<sup>40</sup>

A general tendency towards multi-level governance is developing, but it takes different forms and patterns according to the characteristics of each sector, as well as varying according to national histories and traditions. The trend is not yet stable.



**Multi-level governance does not imply competition between regions or between actors; rather, it involves developing mechanisms for them to collaborate, and building solidarity by linking levels and projects.**

**Figure 5.2. The “Magic Square” of SGEI (cf p. 184)**



<sup>40</sup> Hooghe and Marks (2001) p. 86.



## 5.3 Management and financing of basic services: the role of local authorities

Diverse management models for basic public services are used in Europe. Each is shaped by history, national and regional evolution, sectoral characteristics, the impact of European policies, Europeanization and globalization, and New Public Management approaches and the theories and practices that inform it.

### Management models

Historically, in most European countries, basic public services were defined, organized, provided and financed by local public authorities, even if some countries delegated the management of these services to autonomous or private actors at a very early stage.

Thus, for many decades in France, the management of national public services through large national enterprises, in the field of energy (EDF and GDF), national transport (SNCF), communications (France Telecom, La Poste), co-existed with the delegation of most local water and urban transport services to large private companies.

In the late 1970s, profound changes in management models of basic public services, as well as in the ownership and organization of their operators, were initiated in the United Kingdom. This was before

the Community had started the process of the Europeanization of public services. It is notable that European treaties since 1957 have proclaimed the neutrality of the Community as regards the ownership of enterprises (Article 345 TFEU).

In the late 1980s and 1990s, similar changes took place in most other European countries (e.g. corporatization processes, contracting out, etc.), to a greater or lesser extent depending on the sector. Today, the range of management models varies greatly among countries and sectors. In many fields, local public provision of services remains dominant, either directly, in partnership with other public authorities or through public undertakings. The development of public-public partnerships has been a particular growth area in the context of the penetration of multi-level governance approaches.

In most European countries, forms of public-private partnership (PPP) and, more recently, of public-public partnership, have been developed. However, the participation of the private sector and the distribution of risks between parties is not the same across all sectors, nor in all countries/municipalities. Private sector participation generally takes the form of a contract with a private or not-for-profit organization, but institutional partnerships, or even complete privatization, also exist. Complete privatization can be motivated by the need for new investment – of particular importance in Central and Eastern Europe – the reduced resources of public authorities, the increased technological expertise required for many services, or the quest for efficiency.

The content of public service obligations also varies widely. A recent study of current European practices in the field of transport by rail and by road revealed that, in the majority of EU Member States, public service obligations are extensively defined or in general terms (e.g. without clearly specifying the geographical area).<sup>41</sup> Contractual practices also vary a widely<sup>42</sup> and new

Member States have less experience in establishing public service contracts compliant with EU legislation. This raises the issue of difficulty in specifying contracts and, in case of externalized service management, in assessing risks and deciding how to better distribute them between parties, in building capacities to reduce asymmetries and in entering into partnerships with external operators. Public service obligations may concern all local transport services provided either directly by local authorities or externalized to public, mixed or private operators. For instance, in the UK, outside London, bus services are usually operated by private companies on a market basis; inside London, bus services are planned by a public authority and operated by contractors. In France, for a long time, most urban transport was subject to public service delegations, which was an exception in Europe. Today, there is a general tendency towards developing public private partnerships (PPP) to improve and manage urban transport. At the same time, large private groups are expanding their influence in Europe (e.g. Kéolis or Transdev-Véolia).

In the field of **water** and **sanitation**, services are managed by public authorities in almost all EU Member States. On average, private operators provide water and sanitation to just 26% and 23% of the European population, respectively. Only in two countries is more than half of the population is served by private enterprises: in France through delegated management, a legacy of the 19th century, and in England and Wales, where infrastructure and management were privatized in the 1980s. However, important changes have taken place in Europe over the last twenty years; in parallel with the increasing quality standards, public authorities have increased their use of private operators to provide some basic public services in this field. However, in some cases, water services have been re-municipalized (see Box 5.5).



**In most European countries, forms of public-private partnership (PPP) and, more recently, of public-public partnership, have been developed.**

<sup>41</sup> Maczkovics et al (2010).

<sup>42</sup> See Annex III of the DLA Piper study, Maczkovics (2010), regarding contractual practices in road transport in Belgium – between Brussels Capital Region and STIB/MIVB, in Czech Republic – between Ústí Region and Veolia, in Germany – between Rhein-Neckar-Kreis and PalatinaBus GmbH, in France – between Bordeaux and Keolis, in Hungary – between the State and Tisza Volán, in Italy – between Municipality of Rome and ATAC S.p.A., in Poland – between Kaunas City Municipality and UAB Kaunoautobusai.

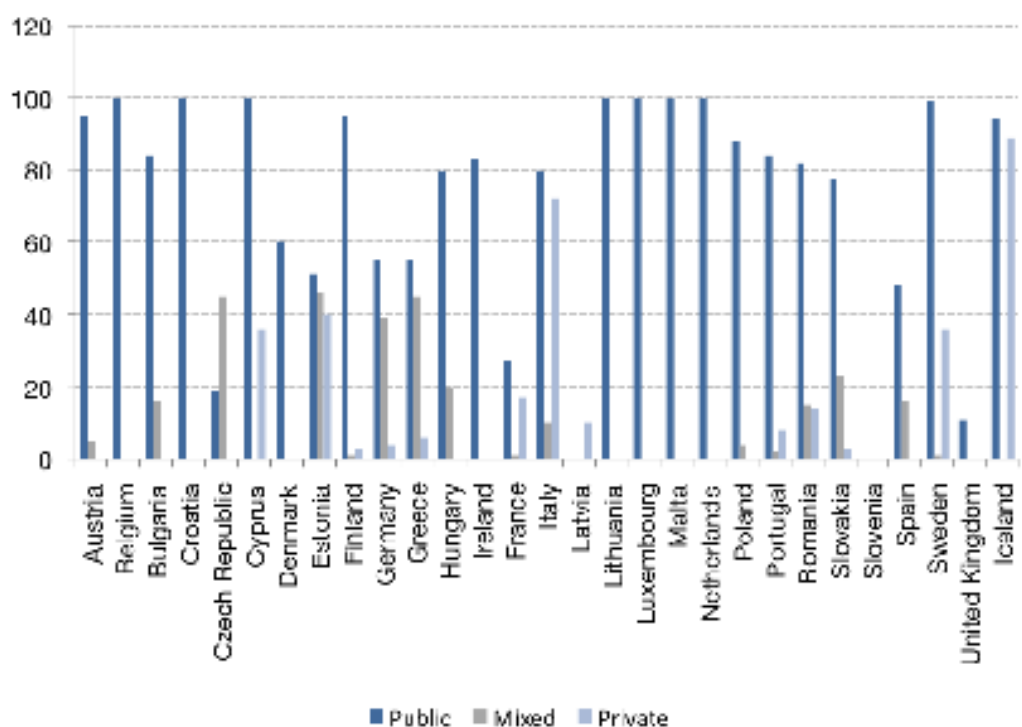
The European water market is thus highly fragmented, comprising tens of thousands different operators. Traditionally, local public water enterprises were organized at the level of each local authority and were therefore small, unlike other network services, such as electricity and telecommunications. Although mergers have occurred, the public enterprises of this sector are not transnational companies (see Figures 5.3 and 5.4).

As mentioned previously, there are few examples of total sale of water public utility assets in Europe: in England and Wales (1989) and two examples in Czech Republic (see GOLD III Europe national country sheets). In England and Wales, water and sanitation services are provided by private companies (ten regional companies operate both water and sanitation, 16 companies provide only water services). The Wa-

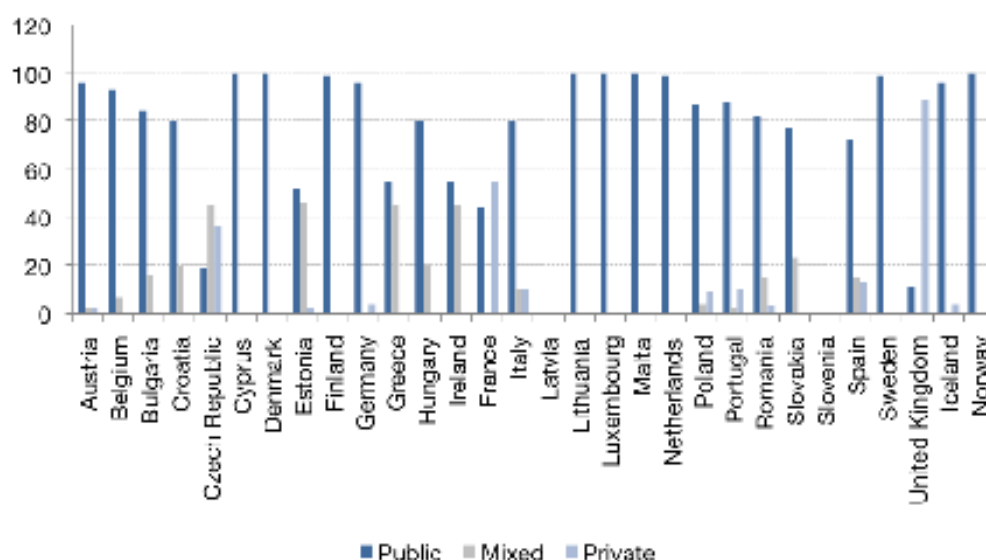
ter Services Regulation Authority (OFWAT) is responsible for the economic regulation of water market, the Environment Agency and Natural England are responsible for environmental regulation, and the Drinking Water Inspectorate regulates drinking water quality. In Scotland, as well as in Northern Ireland, public companies (Scottish Water, and Northern Ireland Water, respectively) provide water and sanitation services. The Scottish Water Industry Commission and the Scottish Environment Protection Agency (and the Northern Ireland Environment Agency) ensure the economic regulation and environmental regulation of water and sewerage in Scotland, respectively. The Drinking Water Quality Regulator in Scotland and the Drinking Water Inspectorate in Northern Ireland monitor supply and quality.

The significant investments required to comply with European Union standards in

**Figure 5.3 Population served by operators of water (% of the population served)**



**Figure 5.4 Population served by operators of wastewater (% of the population served)**



Source: EUREAU Statistics (2009) p. 87.



**The significant investments required to comply with European Union standards in this field have favoured the increasing use of PPP.**

this field have favoured the increasing use of PPP. During the current economic crisis, some of the ‘big players’ at international level have re-centred their activities in Europe.

The extension of the role of the private sector has implied new contractual models. For instance, there has been a move away from the ‘French model’ (lease and concession contracts) towards the ‘German model’<sup>43</sup> in which the operating assets are corporatized and a minority of the shares in

the asset holding company are held by one or more private sector companies who, in turn, operate the concession (known as the ‘Koooperationmodell’, which probably best describes the majority of concession contracts, e.g. Berliner Wasser, operated with Véolia). A further variant of the ‘German Model’ is the ‘Betreibermodell’, where the private sector operator pays a fixed rate for the right to operate the water or sanitation services (e.g. Gelsenwasser) (see Box 5.4).



#### **Box 5.4 Municipal solid waste thermal treatment through PPP in Poland**

Among the new Member States of the European Union, the case of Poland is particularly relevant for PPP development: to meet the targets set forth in EU waste legislation, the city of Poznan (550,000 inhabitants) decided to enact a municipal solid waste thermal treatment plan through a PPP contract with the private operator SITA ZielonaEnergia. The PPP should not only ensure the design and construction of the plant (as in other major Polish municipalities) but also its financing and operation. In this framework, the city also applied for grants from EU Cohesion Funds. If the city does not obtain these EU grants for the project, SITA ZielonaEnergia will finance 100% of construction costs, and receive the appropriate compensation.

<sup>43</sup> Masons (2012).



In some cases, local public authorities have decided to initiate re-municipalization of some local services:

In **Paris, France**, water re-municipalization took place in 2010, with a single public operator entrusted with the responsibility for the entire water cycle (production, transport and distribution) and to have better public orientation and control. It is still too early for a thorough analysis of its consequences. A recent study<sup>44</sup> on the 1998-2008 period of about 75% of the French water market

(where private management covers more than 60% of the water services market), observed that 107 local authorities switched *from private to public* management models, while 104 switched *from public to private* during this period. According to the authors, switches may be driven by economic rationality,<sup>45</sup> as well as by political factors. As regards the economic rationality, the study considers that potential efficiency improvements motivate municipalities to change organizational forms (with the exception of very small municipalities) (see Box 5.5).



#### Box 5.5 Basic local service re-municipalization in Bergkamen (Germany)

In **Germany**, in the case of the City of **Bergkamen** in North Rhine-Westphalia (51,000 inhabitants), by 1966, only sanitation management was public. All other basic public services had been, for a long time, provided by private enterprises after calls for tender. In 1995, the city decided to municipalize electricity (start of distribution in 1996), gas (start of distribution in 1999), district heating (start of distribution in 2003) and the water supply (start of distribution in 2010), as well as street cleaning in 2002, and solid waste collection in 2006. A public multi-service enterprise was established with the municipalities of Kamen (which provided 42% of the capital) and Bönen (which provided 16% of the capital). Today, this enterprise serves the region and operates the supply of water, electricity, natural gas and urban heating (including energy production – participation in gas power plant, thermal power stations, offshore wind power stations, solar plants), as well as leisure facilities (swimming pools and sauna) and, through its subsidiary GSWcom, telecommunication services (telephony and Internet, start of operation in 1999). For the water supply, an agreement was reached with the former provider to establish a new PPP enterprise for the maintenance of the water pipe network. The profit from economic activities allows the municipality to sponsor social, cultural, sports or other activities, and to cover the losses of leisure facilities. According to the mayor of the city of Bergkamen, when deciding the management model of local services, it is important “to focus on the concrete interests of the citizens,” and for each municipality to decide in a transparent and democratic way in which way it will provide different services. According to the city mayor, if “municipal provision of public services is often the best way,” it should also be kept in mind that “municipalization is an entrepreneurial decision, in particular in liberalized markets”. Financial capital is needed, as well as experienced personnel. The municipality takes the responsibility for risks, hazards, failures, mismanagement, strikes and unpopular decisions, too.

<sup>44</sup> Eshien Chong, Stéphane Saussier, Brian S. Silverman, “Water under Bridge: City Size, Bargaining Power, Prices and Franchise Renewals in the Provision of Water”, Paper presented at the Seminar “Smart Governance & regulation of water services in Europe”, 7-8 February, 2013, Florence. [http://chaire-eppp.org/smart\\_governance\\_and\\_regulation\\_water](http://chaire-eppp.org/smart_governance_and_regulation_water).

<sup>45</sup> Overall, in small municipalities where the service is provided in PPP, water price is, on average, 8% higher; but for large municipalities, PPP does not seem to have a significant impact on water price.

Source: Presentation of Roland Schäfer, Mayor of the City of Bergkamen, at the Annual Conference of the Local and Regional Government organized by the EPSU, Riga (Latvia), 8 May 2012.

A further comparative overview of examples of re-municipalization for waste, water, electricity, road transport and social services in Germany, France, the UK, Hungary and Finland has been compiled by the Public Service International Research Unit of Greenwich University in a briefing entitled “re-municipalising municipal services in Europe.”<sup>46</sup>

Partnerships between municipalities are less frequently used in countries where local authorities have large populations (such as the UK) but very popular in countries with many small local authorities (such as France). In some countries, such as Norway, different forms of cooperation among municipalities are being developed to improve capacities and efficiency, given the similar tasks of municipalities, despite their different sizes. In the Eastern European countries, EU accession

and cohesion policies have incentivized the development of inter-municipal cooperation (for instance, the setting up of inter-municipal companies to provide water services in Hungary, Croatia and Romania). During the crisis, the sharing of the professional resources and equipment for administrative operations (tax collection, joint procurement, IT, etc.) has become popular.<sup>47</sup> In all cases, co-operation, either legal or voluntary, differs from one region to another, as does its impact and influence on the governance of services.

In the field of **solid waste**, service delivery models include public and delegated management, with public, mixed or private operators mandated for some or all waste services. Some countries maintain an element of inter-municipal cooperation in waste disposal.<sup>49</sup> At European level, the largest companies in this sector are the French companies



#### Box 5.6. Solid waste management in Slovakia

Since 2010, Slovak municipalities have been responsible for a full range of waste services. They must ensure the separate collection of papers, plastics, glasses and metal (bio waste has to be separated starting in 2013). According to opinions expressed in the GOLD III survey, a good waste management strategy, reflecting priorities in waste management and financial tools, as well as a good strategy for limiting bio waste storage in landfill, are still missing. Separate collection is 4.5 times more expensive for municipalities than disposing mixed communal waste in landfills. Therefore, much waste is still disposed of in landfills, which is the cheapest method of waste disposal. Also, there are different capacities across municipalities. The level of separation is also low, due to population practices, and the separated waste is often “so dirty” that it must be dumped in landfill or incinerated. In terms of composting (biological treatment of waste<sup>48</sup>), there is a particular problem for smaller municipalities, which do not have purchasers for the collected compost. This does not seem to be the case for towns and cities, which use it for the fertilization of park and green areas. In addition, there is no established cooperation between municipalities. Each municipality carries out its responsibilities individually and it is difficult, for instance, to imagine that one municipality will care about waste collection in another municipality. Much more common are separate agreements established by one waste collection company with several or all municipalities in a region to collect the mixed and separated waste of each municipality.

<sup>46</sup> [http://www.epsu.org/IMG/pdf/Redraft\\_DH\\_remunicipalization.pdf](http://www.epsu.org/IMG/pdf/Redraft_DH_remunicipalization.pdf)

<sup>47</sup> Davey (2012) p. 69.

<sup>48</sup> In general, Europe’s municipalities make a different use of composting. For example, the city of Rome is composting about 12% of its municipal waste, Madrid 50%, Warsaw 60% and Vienna 70% (source: ACR+, 2010).

<sup>49</sup> Finland with Norway and Sweden (according to 2006 Council of Europe survey).



**There is no reason to believe that private enterprises are more efficient than public enterprises in general.**

Véolia and Suez, the Spanish companies FCC, ACS and Ferrovial, and the German groups Remondis and Alba. In France, Germany and the UK, public and private operators have a roughly equal role in municipal waste collection and processing. Some municipal companies also operate across European borders (e.g. the Dutch company, Indaver/Delta) (see Box 5.6).<sup>50</sup>

Today, European organizing authorities can choose, in accordance with the law, after having defined the aims and purpose of services, between the direct, in-house management of services, or the delegation of service provision by means of external partnerships.

***No proven, universally superior single management model***

In this context of externalization, (re) municipalization and privatization the research shows no universally superior single management model.

For instance, a recent study analysing econometric empirical studies in waste management and water found “no systematic support for lower costs with private production... we do not find a genuine empirical effect of cost savings resulting from private production.”<sup>51</sup> Another author affirms “there is no reason to believe that private enterprises are more efficient than public enterprises in general,” arguing that “there is a need for studies to compare the welfare consequences/effects of publicly and privately owned firms.”<sup>52</sup>

The optimal choice between externalization and re-municipalization can only be made on the basis of case-by-case assessments of the advantages and disadvantages of each model by public authorities. This report does not aim to analyse all criteria used by public authorities to decide the management modes of basic public services. We confine ourselves to some of the main issues usually taken into consideration.

The price of the service to users may be a factor. In the case of private management, this price must cover payments to shareholders, which could lead to price increases compared to public management, whose aim is not (in general) to make a profit but to meet general interest objectives. On the other hand, an increased efficiency of private actors may allow lower prices. However, the level of investment to be covered by tariffs and/or the delegate in the period of delegated management may also impact on prices, as might new policy constraints as regards quality, the coverage of the service or contractual arrangements.

Another critical aspect of delegated management is the difficulty for the organizing authority in maintaining appropriate control over the delegate. This is due, in particular, to asymmetries of information and expertise between the public authority and the delegate, a phenomenon which may also exist in case of in-house management. This may be due to the legal and/or contractual relationships between the operator and public authority(-ies) and the lack of transparency of the part of operators. In fact, as a result of their presence in different geographic, economic, cultural and sectoral areas, some private operators could be better equipped than the public sector in terms of technical, economic and contractual expertise, experience and financial capacity (including the ability to share and pool resources). However, this can also create conditions for asymmetries in relation to public authorities and users. Operators can use the system to obtain strong profitability, as they often have a territorial and temporal monopoly. This also explains the development of oligopolistic competition in some sectors. On the other hand, the multiplicity of actors involved in the governance of local basic services and, in particular, the weak political, administrative, and technical capacity of public authorities may amplify control problems. In some cases, in particular within the framework of

<sup>50</sup> Hall et al (2013).

<sup>51</sup> Bel et al (2008).

<sup>52</sup> Mühlenkamp (2013).

long-term delegation contracts, public authorities may even ‘abandon’ delegated services, considering themselves (or acting as if they were) no longer responsible for them.

Therefore, many examples show that the performance of service operators under both delegation and direct management depends of the capacity of public authorities to control the accomplishment of public service missions and obligations, whether the operator is private or public.

In-house management could be advantageous because of the presence, involvement and increased power it confers to public authorities. It strengthens their capacity for negotiation (through, for example, the direct presence of elected officials in the management bodies of the public operators, allowing them to be regularly and directly informed about the operation of the service) and facilitates their coherence and adaptability to public policies and objectives. However, a political presence could be source of instability, as it may be driven by other objectives beyond those of the enterprise. In-house management could also continue to be subject to bureaucratic inflexibility. An unlimited timeframe monopoly can lead to the use of income from the service for purposes other than the improvement of the service itself.

Competition is used as a means to ensure a better or more appropriate system of management. Therefore, EU law provides specific rules for when public authorities decide to externalise the management of SGEI to private operators. However it does not deal with in-house management models, which may be subject of more or less developed benchmarking practices. Similarly, private operators in charge of the management of a public service may outsource some activities to their own subsidiaries without competition. Competition also requires a well-equipped market and operators.

The different fiscal regimes and employment conditions and cultures in public and private operators could also favour one model of

management over another. The relationship between organizing authority, provider and users is a key issue, regardless of the management model of the service. Social solidarity mechanisms such as subsidies have traditionally been favoured by the public sector, but may lead to higher costs and/or public spending. Nevertheless, delegated management may also implement innovative social policies.

In all cases, public authorities should maintain a degree of in-house knowledge and expertise. For instance, some authorities choose to use both delegated and direct management at the same time, a coexistence which may be beneficial for all parties.

Changing a management model requires time to study, prepare and implement the new system. It also requires specific technical, professional and economic resources. Increasingly, the challenge is to integrate policy and governance, going beyond just the choice of the management model to develop multi-level governance.

### ***Democratic stakeholder participation***

Crucial to the success of any model is a public system of regulation, based on the democratic participation of all stakeholders. This marks a move from regulation by “experts” to regulation by “actors”. There is an increasing acknowledgement of the necessity to involve all stakeholders, not just public authorities and service operators, but also consumers (domestic and industrial users, both large and small), citizens, local authorities, elected officials, staff, and trade unions. Due to their diverse experiences, all these actors have much information at their disposal that the organizing authority and the regulatory agency lack. Their expectations and demands are rooted in their diverse experiences. Bringing together all stakeholders to engage in debate, dialogue, and negotiation, is a means of reinforcing the regulation and governance of services of general interest.<sup>53</sup>



**In-house management could be advantageous because of the presence, involvement and increased power it confers to public authorities.**

<sup>53</sup> For developments in current participation practices in Europe, see section III and the country sheets at [www.uclggold.org/](http://www.uclggold.org/).

Within the Council of Europe, an Additional Protocol to the European Charter of Local Self-Government was adopted 16 November 2009 concerning the right to participate in local authority affairs. It entered into force on 1st June 2012.<sup>54</sup> The right to participate in the affairs of a local authority consists in the right to seek to determine or to influence the exercise of a local authority's powers and responsibilities. It requires taking legal and other measures to facilitate the exercise of, and give effect to, this right. The protocol also requires that measures be taken to ensure that the ethical integrity and transparency of the exercise of local authorities' powers and responsibilities are not jeopardized by the exercise of the right to participate.

### ***Guaranteeing free choice, allowing experimentation and reversibility***

In the field of governance and regulation, no single system has demonstrated its universal superiority. The most important criterion for success seems to be that a public authority has the ability to mobilize knowledge and expertise.

Guaranteeing the free choice of management models, allowing to experiment with different management models, and to reverse these decisions (as some municipalities have chosen, for instance, to take back some services, into municipal management), is advisable. For this reason, it is a good idea for the public sector to provide at least part of the service directly, as is the case in Nantes Métropole (see Box 5.7).



### **Box 5.7 Sustainable water management: the choices of Nantes Métropole**

The Nantes urban community, Nantes Métropole, is an inter-municipal structure which brings together 24 municipalities totalling around 600,000 inhabitants. It exercises the powers and responsibilities transferred to it by municipalities upon its creation in 2001, notably the responsibility for the public water and sanitation utility, as well as the management of rainwater and the preservation of the aquatic environment by means of an integrated approach to the water cycle. The management models were heterogeneous, with as many different contracts and tariffs as there were municipalities. The Métropole was confronted with the challenge of how to organize these services to ensure fair access to quality services, and to preserve the environment in the context of a conurbation in the throes of rapid development.

To respond to those challenges, Nantes Metropole rethought its water management, notably by developing internal expertise and a strong organizing authority. The councillors implemented a system to sustainably manage water, consisting of: a strong organizing authority, a blend of management models, that is, the coexistence of public and private operators in the same region. It followed the French example of services of general interest (public services), notably that of organized urban public service networks.

<sup>54</sup> See <http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=207&CM=8&DF=07/12/2012&CL=ENG>



## Financing basic public services

In terms of financing models for basic public services, European countries boast a rich variety of experiences, rooted in national histories and financing needs. These include:

- Free service provision to all or some users funded by general taxation (e.g. for the water service in Ireland);
- Financing the entire cost of the service by user tariffs, according to the principle of “full cost recovery;”
- A system of subsidies or participation by other actors (as in the case of urban transport in many French municipalities);
- Co-financing by national, regional and local public authorities, as well as European or international funds;
- Cross-subsidies, which can be geographical (e.g. a single, universal price for a postage stamp), social (between generations or to smooth returns on investment over the mid to long term) or

between sectors (profits from one activity being used to finance deficits in others).

Often, a combination of these models of financing is used, which sometimes makes it hard to make transparent the “true costs” of service provision (see Box 5.8).

Thus, the funding of urban public transport only partly relies on the fares paid by passengers. It is for this reason that “public aids” to transport have been accepted in the European Community since 1957 (Article 73 TFUE). Most costs can be financed, for example, by public subsidies and provider revenues, financial participation from other economic operators, as in France, cross-subsidies between different municipal undertakings, as in Germany (even if the use of this model is decreasing),<sup>55</sup> and revenues resulted from associated commercial activities. In all cases, users are relatively uninformed in the choice of financing models. On the other hand, a recent study shows that not all public service contracts pose definitions



**The funding of urban public transport only partly relies on the fares paid by passengers.**



### Box 5.8 Public service funding framed by the European Union

Increasingly, rules adopted at EU level frame the room for manoeuvre of local governments in financing basic public services. Since 1992, common rules for public procurement have been adopted to guarantee operators coming from different Member States access to national markets across the EU and thus to accomplish the objective of the creation of an open internal single market. European rules regarding the compensation of public service obligations have also been adopted. They aim to ensure compensation is transparent and proportional and that the operator is not favoured against its competitors. Currently, all public financing must be subject to clear definition of tasks and obligations, decided by organizing authorities, and must rely on clear calculation methods. On these bases, European rules now define, according to sectors or the importance (turn-over) of the service, a series of different procedures that impose separate accounts for public service activities and the reimbursement of public in the case of over compensation for the public service obligations provided. In many cases, before deciding granting public funding, public authorities require a preliminary authorization from the European Commission, which controls the compatibility of the proposed funding with internal market rules.

<sup>55</sup> Regulation 1370/2007/EU provides for specific rules to avoid cross-subsidization when public service contracts have been awarded directly and when urban transport operator also engages in other activities than those specified as public service obligations. See also the drafts of the new EU directives on public procurement and concessions proposed by the European Commission, in legislative process.



**In the field of water, EU policy goals are evolving to increase the emphasis on cost recovery from water users.**

of the level of costs of the public transport operator; sometimes the costs are defined by the operator. However, some authorities establish benchmarks with a comparable undertaking to assess the financial effect.<sup>56</sup> In Central and East European countries, urban transport services were traditionally financed by the state but, since 1990, decentralization has been accompanied by the reduction of state subsidies for urban public transport.

In the solid waste sector, sub-national grants are sometimes provided to meet environmental targets.<sup>57</sup> For example, to meet waste recycling targets (35% of the waste stream by 2009 and 51% by 2011), the province of Rome, with financial support from the Lazio region, provides economic grants to municipalities in its jurisdiction to establish waste collection systems that enable them to quantify individual household waste and thereby create fiscal incentives for waste reduction recycling.<sup>58</sup>

In the field of water, EU policy goals are evolving to increase the emphasis on cost recovery from water users. However, the rates of recovery vary widely among countries. For instance, in **Spain**, rates are around 95% for distribution in urban systems and 85% for wastewater treatment.<sup>59</sup> In **Denmark**, since 1992, urban water prices have been based on the full-cost recovery principle, with prices covering both economic (through user charges) and environmental costs (through taxes). In **Czech Republic**, operating costs for drinking water supply and sanitation infrastructure are covered by the water bills paid by service users. The rate of cost recovery is 100% when only operating costs are included, but drops to 10-20% when renewal and new investment costs are included.<sup>60</sup> **Ireland** is a unique example of where service users pay for neither the capital nor the operating costs for water delivery, collection and sewage treatment.

While redistributive policies could be improved to generate greater local and regional competitiveness, eliminating all cross

subsidies and redistribution for basic public services is not a sustainable solution.

The issues raised by the models of financing concern both access to basic public services, cohesion and governance.

There are different degrees of pricing decentralization in Europe and prices vary greatly, not only according to countries (and municipalities) and sectors, but also in terms of the proportion they make up of household budgets. In some cases, efforts are made to ensure access to the most vulnerable in the context of continuously rising prices. Many countries have introduced subsidized tariffs or other measures, but it is clear that important knowledge gaps exist on the issue of vulnerable users. Taxes can also impact on service affordability. Due to wide European discrepancies, affordability can only be analysed in each local context.

The Lisbon Treaty specifically recognized affordability as an important value of all services of general economic interest. However, affordability measurement needs to be specifically addressed by public policies and increased information and data collection capacities at local level. This will allow a more accurate identification of the real needs of different users and the monitoring of different factors influencing the affordability of different services (income evolution, inflation, etc.). There are two main approaches to this in Europe, one that monitors affordability for all, and another that focuses exclusively on affordability for low-income users.

Affordable access is not only favourable to users; it might also serve as a tool for other objectives (e.g. the development of a sustainable transport system). On the other hand, affordability conditions evolve over time. In Budapest, for example, a city that made transport history as the first in continental Europe to have a metro line, prices for using public transport are now considered to be high.<sup>61</sup> The price of monthly tickets for a family of two adults and two

<sup>56</sup> Maczkovics (2010) p.58.

<sup>57</sup> The European Commission calls Member States for the phasing out of environmentally harmful subsidies. See COM(2011)571, Communication on a Roadmap to a Resource Efficient Europe.

<sup>58</sup> Kamal-Chaoui (2008) p. 35.

<sup>59</sup> According to OECD, Environment Policy Committee, Working on Biodiversity, Water and Ecosystems, August 2012.

<sup>60</sup> OECD (2012c).

<sup>61</sup> Affordability often refers to considering the relationship between the price of services and household income. However, it can also refer to the service's production costs.



### Box 5.9 Protection of vulnerable users in the field of water

#### Eco-solidarity pricing in Dunkirk, France

On 1st October 2012, the 27 communes of Dunkirk conurbation (220,000 inhabitants), in partnership with the operator Lyonnaise des eaux, set up a new water pricing system, based on three tariffs: 'basic' water, needed for nutrition and hygiene (0.32 €/m<sup>3</sup>), 'useful' water (1.53 €/m<sup>3</sup>) and water for 'comfort' (2.04 €/m<sup>3</sup>). Michel Delebarre, Mayor of Dunkirk and president of the conurbation, emphasizes that "everyone can make an effort for environment and reduce their water budget. Through eco-solidarity pricing, Dunkirk territory has reaffirmed its commitment to the values of solidarity and sustainable development". An eco-solidarity observatory was set up with social housing providers, social services and sustainable development partners to ensure the monitoring and the adaptability of the pricing mechanism.

#### Electricity: the protection of "vulnerable consumers" in the EU

Directive 2009/72/EC on common rules for the internal market on electricity<sup>62</sup> requires Member States to take appropriate measures to protect final customers, and shall, in particular, ensure that there are adequate safeguards to protect vulnerable customers. In this context, each Member State shall define the concept of vulnerable customers which may refer to energy poverty and, inter alia, to the prohibition of disconnection of electricity to such customers in critical times. Member States shall ensure that rights and obligations linked to vulnerable customers are applied. In particular, they shall take measures to protect final customers in remote areas. They shall ensure high levels of consumer protection, particularly with respect to transparency regarding contractual terms and conditions, general information and dispute settlement mechanisms. Member States shall ensure that the eligible customer is in fact able easily to switch to a new supplier. As regards at least household customers, those measures shall include those set out in Annex I. (Measures on consumer protection) (Article 3. Public service obligations and customer protection).

Here, European policy is limited to "energy poverty", which refers to access to electricity and gas. The notion of "fuel poverty" is larger and embraces all energy sources (electricity, natural gas, liquid petroleum gas, oil, coal, urban heating, and other fossil fuels). EU legislation regarding energy efficiency<sup>63</sup> also takes into account the concept of energy poverty (in the French version, in the sense of 'affordability' – '*précarité énergétique*').

Fuel and energy poverty exists in all Member States, but the nature of the problem and the approaches to it vary widely.<sup>64</sup> At national level, only the United Kingdom and Ireland have officially recognized definitions (+10% of household's revenues spent for heating-> *fuel poor households*). In many countries where there is no official definition or estimates of fuel poverty, the issue is confused or ignored.<sup>65</sup>

<sup>62</sup> In the field of the natural gas, see Article 3 of the Directive 2009/73/EC.

<sup>63</sup> Directive 2012/27/EU on energy efficiency.

<sup>64</sup> For Greek and Italian case studies, see Yannis Eustathopoulos, "Programme d'ajustement-structurel & SIEG. Le cas de l'électricité en Grèce," [http://www.cesi.org/pdf/seminars/121024\\_08\\_eustathopoulos\\_yannis.pdf](http://www.cesi.org/pdf/seminars/121024_08_eustathopoulos_yannis.pdf) and Mauro Brolis, "Lotta alla precarietà energetica. Misure e strumenti per garantire l'accessibilità ai servizi energetici," [http://www.cesi.org/pdf/seminars/121024\\_09\\_brolis\\_mauro.pdf](http://www.cesi.org/pdf/seminars/121024_09_brolis_mauro.pdf), CESI Symposium "Providing high-quality public services in Europe based on the values of Protocol 26 TFEU", Warsaw, 11-12 October 2012

<sup>65</sup> For a presentation of the European debates, see Bauby and Similie (2012).

children represents 20% of the average monthly salary.<sup>66</sup> In general, in Central and Eastern Europe, inhabitants express critical attitudes towards urban transport (not necessary for affordability reasons) and, therefore, there is relatively high car use (see Box 5.9).

EU statistics clearly show the rising share of EU-27 household expenditure devoted to electricity, gas and other fuels, housing, water supply and other dwelling services and health in the decade 2001-2011.<sup>67</sup> Of the basic services under investigation, energy prices increased the most. In some countries, this is partly due to taxes and fees designed to incentivize environmental sustainability. Higher energy prices (e.g. in Germany) and eco taxes are used to save energy or to discourage waste (e.g. in Austria). Denmark is set to establish or amend environmental and energy taxes to change consumer behaviour and decrease consumption over the period 2010-2019.<sup>68</sup>

Analyses of financing models of local basic services are often completed by comparisons between countries of prices or tariffs for a certain type of service. While price comparisons are relevant for a single service at a given time in a particular area, they are not useful between communities, cities, regions or countries.

Costs for water services may be up to five times more expensive in one area than another, depending on: geographical situation, basin, the quantity, the accessibility and the quality of the water source, the density of population, service size, habitat type, the level of household revenues and their purchasing power.

Comparisons on the basis of 'all other things being equal' do not produce meaningful or useful insights. It is best to analyse and compare the proportion of household budgets which are spent on basic public services, and how this evolves over time (see Table 5.3).<sup>69</sup>

Today, previous financing models are being directly affected by the economic and financial crisis (cf. Part V) and, more broadly, by EU law, which offers both funding opportunities (e.g. structural funds) and constraints (e.g. state aids rules, converging funding principles).

For instance, the EU Water Framework Directive 2000/60/EC requires Member States to recover their water costs while, at the same time, allowing some flexibility and lower recovery rates when needed (Article 9). In fact, until now very few countries recover all economic and environmental water costs through tariffs (Denmark is a notable exception). Moreover, water service investments are mainly financed by public subsidies and loans. In this respect, EU structural funds can play a very important role in some local contexts.<sup>70</sup> Thus, under the Water Framework Directive, several types of activities can be funded via EU Cohesion Policy and the Structural Funds. For instance, during the programming period 2007-2013, European Regional Development Fund (ERDF) and European Social Fund (ESF) open funding for the management and administration activities (strengthening of River Basin Authorities-RBAs; technical capacity building for RBAs; support and capacity building of stakeholders/interested parties by RBA; scientific studies inventories, mapping), ESF also intervene with funds for setting up stakeholder networks and managing the participatory processes by RBAs and for awareness-raising campaigns. As regards the operation and monitoring activities, ERDF can be used for monitoring systems and risk analyses, flood risk management, erosion control and water-saving solutions for industry. ERDF can also be used for investments in infrastructures for updating existing water infrastructure, build new infrastructure for the management of water resources and improvement of water networks (in these areas funds were also available through the Cohesion Fund), Wetland

<sup>66</sup> Schippl and Puhe (2012) p. 41.

<sup>67</sup> Gerstberger and Yaneva (2013).

<sup>68</sup> For an overview of Environmental taxes as a percentage of total tax revenue in EU 27, see European Commission, Taxation Trends in the European Union, 2011, SEC(2011)1067.

<sup>69</sup> For a 2009 survey summarizing the perception of the difficulty of paying bills at the end of the month, see in Urban Audit, Eurostat (2012) p. 174.

<sup>70</sup> For an overview of implemented projects, see DEAS et al (2010).

**Table 5.3 Final consumption expenditure of European households on some basic services (% of the total)**

|                | Water supply and other services relating to the dwelling |              | Electricity, gas and other fuels |              | Transport |               |
|----------------|--|--------------|----------------------------------|--------------|-----------|---------------|
|                | 2002   | 2011         | 2002                             | 2011         | 2002      | 2011          |
| UE27           | 1.5  | ↗ 1.7        | 3.4                              | ↗ 4.4        | 13.5      | ↘ 13.2        |
| Austria        | 2.6  | 2.6          | 3.7                              | ↗ 4.0        | 13.1      | ↗ 13.4        |
| Belgium        | 1.4  | 1.4          | 4.6                              | ↗ 5.4        | 12.1      | ↗ 12.4        |
| Bulgaria       | :  | 0.9 (2010)   | 4.2 (2008)                       | ↗ 4.8 (2010) | 15.2      | ↗ 16.8 (2010) |
| Czech Rep.     | 1.4  | ↗ 1.7        | 7.6                              | ↗ 8.6        | 9.3       | ↗ 9.4         |
| Cyprus         | 0.7  | ↗ 1.1        | 2.4                              | ↗ 3.4        | 15.6      | ↘ 11.5        |
| Denmark        | 2.0  | ↗ 2.3        | 6.3                              | ↘ 5.9        | 11.9      | ↗ 12.3        |
| Estonia        | 1.5  | ↘ 1.2        | 4.2                              | ↗ 4.8        | 10.6      | ↗ 13.2        |
| Finland        | 0.4  | ↗ 0.5        | 2.4                              | ↗ 3.3        | 12.2      | ↘ 11.2        |
| France         | 1.4  | ↗ 1.6        | 3.4                              | ↗ 3.9        | 14.2      | ↗ 14.4        |
| Germany        | 2.2  | 2.2          | 3.8                              | ↗ 4.8        | 14.0      | 14.0          |
| Greece         | 1.0  | ↗ 1.3        | 1.7                              | ↗ 5.6        | 10.5      | ↗ 11.8        |
| Hungary        | 1.2  | ↗ 1.9        | 5.1                              | ↗ 7.5        | 14.5      | ↘ 13.0        |
| Ireland        | 0.1  | ↗ 0.3        | 2.8                              | ↗ 3.8        | 11.2      | ↗ 13.3        |
| Italy          | 1.7  | ↗ 2.0        | 3.2                              | ↗ 3.9        | 13.5      | ↘ 12.8        |
| Latvia         | 1.3  | ↘ 1.2        | 5.5                              | ↗ 7.4        | 9.2       | ↗ 13.6        |
| Lithuania      | 1.2  | ↗ 1.3 (2009) | 5.5                              | :            | 13.7      | ↗ 14.6 (2010) |
| Luxembourg     | 0.9  | ↗ 1.1        | 2.2                              | ↗ 2.9        | 16.8      | ↗ 19.1        |
| Malta          | 0.4  | ↗ 0.7        | 1.5                              | ↗ 2.7        | 12.2      | ↗ 12.5        |
| Netherlands    | 1.4  | ↗ 1.5        | 3.8                              | ↗ 4.7        | 11.3      | ↗ 12.5        |
| Poland         | 1.6  | ↗ 2.3        | 7.4                              | ↗ 9.1        | 9.1       | ↗ 10.0        |
| Portugal       | 1.1  | ↗ 1.7        | 2.8                              | ↗ 3.5        | 14.8      | ↘ 12.6        |
| Romania        | 0.7  | ↗ 2.0 (2010) | 3.1                              | ↗ 5.0 (2010) | 11.4      | ↘ 11.0 (2010) |
| Slovenia       | 1.6  | ↗ 2.0        | 4.9                              | ↗ 6.5        | 14.8      | ↗ 15.1        |
| Slovakia       | 1.6  | ↗ 2.7        | 8.8                              | ↗ 10.9       | 8.8       | ↘ 7.3         |
| Spain          | 1.4  | ↗ 2.1 (2010) | 2.2                              | ↗ 3.0 (2010) | 11.5      | ↗ 11.6 (2010) |
| Sweden         | 0.0  | 0.0          | 5.5                              | ↗ 6.0        | 13.6      | ↘ 13.2        |
| United Kingdom | 0.8  | ↗ 0.9        | 2.2                              | ↗ 3.6        | 15.2      | ↘ 14.3        |
| Iceland        | 0.8  | ↗ 1.2        | 2.2                              | ↗ 2.7        | 13.9      | ↗ 14.8        |
| Norway         | 1.3  | 1.3 (2010)   | 4.0                              | ↗ 4.8 (2010) | 14.4      | ↗ 15.0        |

Source: Eurostat, [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nama\\_co3\\_c&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nama_co3_c&lang=en)



restoration, Equipment acquisition.<sup>71</sup> At the same time, delays in the implementation of EU Water Framework Directives in Member States are often linked to concerns over the availability of resources while high levels of investments in water supply and sanitation systems will be needed, particularly to maintain, repair and replace existing networks.<sup>72</sup>



**In Europe, the level of local government expenditure on basic public services varies between countries and municipalities.**

### **Overview of local expenditures and revenues<sup>73</sup>**

In Europe, the level of local government expenditure on basic public services varies between countries and municipalities.

During the financial, economic and social crisis, central and local government expenditure increased only modestly. If, in terms of GDP, statistical data show more significant rate of expenditure, this is mainly due to the large falls in nominal GDP (excepting the increase in social security funds expenditures to combat the crisis).

In 2010 in the EU,<sup>74</sup> the average general government total expenditure made up 50.6% of GDP. Central governments continue (on average) to account the most important part of public expenditure (38.5%, that is, 4.0% of GDP), while local governments accounted for 24.3% (11.9% of GDP) and social security funds for 31.5% (16.0% of GDP). If we consider the examples at opposite ends of the spectrum, in four countries – Ireland, Greece, Cyprus and Malta, local governments accounted for less than 10% of general government expenditure in 2010, while in three other countries a high share of local government expenditures is observed: in Denmark, 63% of general government total expenditure; in Sweden, 48%; and in Finland, 40%. The smallest shares of central government expenditures are found in federally and regionally structured countries (Germany, Austria, Spain and Belgium).

However, even if the share of local government spending appears to be lower than central government spending in most

countries, it continues to be higher than subnational public revenue, which was relatively stagnant across the EU 27 in 2011. Moreover, when looking at Member States, the situation is changing: while, in 2010, there was a clear distinction between Northern European countries, where subnational revenue increased, and Southern European countries, where subnational revenue decreased, in 2011 the situation is somewhat different.

The reasons behind these evolutions in revenue include: the effects of the economic situation on tax revenue; measures taken by governments as regards transfers; and structural reforms affecting subnational levels of government and their funding (e.g. decentralization financed through new revenue, tax reform, equalization mechanisms and fee policies).

*Grants and subsidies* remain the main source of revenue for subnational authorities (about 44% of total revenue on average in the EU 27). In about ten countries, this category of revenues accounted, in 2011, for over 70% of revenue (Malta, Romania, Bulgaria, the Netherlands, the United Kingdom, Greece, Hungary, Lithuania, Belgium and Ireland). *Revenue deriving from taxes* provided about 41% of subnational revenue on average in the EU 27 in 2011. However, no local tax existed in Malta and in six other countries, this category of revenue accounts for less than 15% of local revenue (in Ireland, the United Kingdom, the Netherlands, Greece, Bulgaria and Romania). Local taxes accounted for more than 46% of public budgets in Finland, France, Latvia, Austria, Germany, Spain and Sweden. Users charges and fees generated an average of 10.6% of EU 27 subnational public sector revenue and revenue from sale and the operation of physical and financial assets provided 1.6% of subnational revenue in 2011.<sup>75</sup> Overall, in 2011, subnational public sector revenue per capita ranged between 15,772 euros in Denmark and 97 euros in Malta.

<sup>71</sup> Summary based on World Wildlife Fund (2005).

<sup>72</sup> OECD, Environment Policy Committee, Working Party on Biodiversity, Water and Ecosystems, August 2012.

<sup>73</sup> This part draws extensively on Dexia – CEMR (2012).

<sup>74</sup> Eurostat, Laura Wahrig & Isabel Gancedo Vallila, Statistics in focus, N° 16/2012, [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-SF-12-016/EN/KS-SF-12-016-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-12-016/EN/KS-SF-12-016-EN.PDF)

<sup>75</sup> See for data and graph Dexia (2012), p.15

In the context of the economic crisis triggered in 2008-2010, total subnational public sector revenue dropped in volume on average in EU 27. Nevertheless, on a per country basis, in some Member States' revenue increased (e.g. some countries in northern or eastern Europe) while in others they dropped (for example, in countries of southern Europe). In 2011, total subnational public sector revenue in EU 27 reached 2.016 billion euros (slightly higher than the volume reached in 2010 – 1.967 billion euros), i.e. 16.0% of GDP (a similar value when compared with 2010) and 35.8% of public revenue (lower than the value of 2010 – 36.4%).<sup>76</sup>

Of all sources of revenue, user tariffs are, on average, the only ones which have risen constantly. However, this varies: these revenues are falling in 11 countries, while they increased in the other 16. In 2011, the most marked increases (Latvia, Cyprus, Bulgaria and Slovenia) and decreases (Greece, Luxembourg and the UK) were in countries where these revenues are an important contributor to local budgets. In other cases, growth rates of user tariffs attest to efforts by local authorities to find financial resources by exploring new, wider and more varied areas.

In fact, in the EU, local government share in total public investment is, on average, higher than the share of investment of the central government, which also creates most of the public debt. However, in all, subnational expenditure began to slow down in 2010, a trend which continued in 2011, with an even

more marked drop at local level. Expenditure related to optional tasks was particularly targeted but, in some countries, even mandatory services were affected. In others, lower expenditure also translated into a growing trend toward outsourcing public services and, sometimes, the privatization of some activities and companies (in particular in Germany, Austria, Italy, Spain, Portugal, the Netherlands and the United Kingdom). The GOLD III survey showed that there is not much financial room for modernization or renovation, replacements and sustainable development in local services while investment needs are evolving (see Table 5.4).

Subnational and local public sector expenditure is very diverse in European countries. In highly-decentralized countries (Denmark, Sweden, Finland), in Germany (federal state) and in some regionalized countries (Spain and Belgium) the weight of subnational expenditure as part of the national economy is significant. In Italy, Austria, the Netherlands and Poland, the ratios of subnational expenditure are close to the European average while ratios are lower than the EU 27 average in France, the United Kingdom and some of the new EU member states (Estonia, Lithuania, Latvia, Romania, Czech Republic and Hungary). In relatively centralized countries (such as Ireland, Portugal and Greece) and in countries whose local authorities have limited competencies because of their small size (such as Malta, Cyprus), local authorities expenditures are markedly below the EU 27 average and have often limited powers.<sup>77</sup>



**In the EU, local government share in total public investment is, on average, higher than the share of investment of the central government.**

<sup>76</sup> See for data and graph Dexia (2012) p.12.

<sup>77</sup> For data and graph see Dexia (2012) p. 24.

**Table 5.4 Subnational expenditure by economic function in the EU27 in 2009**

|                                  | Education          | Social protection  | General services   | Health             | Economic affairs   | Other*             |
|----------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Austria                          | 18.6               | 19.2               | 15.7               | 22.2               | 13.9               | 10.4               |
| <i>Local sector alone</i>        | <i>17.5</i>        | <i>19.1</i>        | <i>17.2</i>        | <i>17.5</i>        | <i>12.9</i>        | <i>15.8</i>        |
| Belgium                          | 32.1               | 17.9               | 18.2               | 1.6                | 15.9               | 14.3               |
| <i>Local sector alone</i>        | <i>19.3</i>        | <i>16.8</i>        | <i>23.6</i>        | <i>2.6</i>         | <i>9.6</i>         | <i>28.1</i>        |
| Germany                          | 22.3               | 27.5               | 22.1               | 1.6                | 10.3               | 16.2               |
| <i>Local sector alone</i>        | <i>16.8</i>        | <i>32.8</i>        | <i>16.0</i>        | <i>1.6</i>         | <i>11.3</i>        | <i>21.5</i>        |
| Bulgaria                         | 29.7               | 6.8                | 20.0               | 4.9                | 10.9               | 27.8               |
| Cyprus                           | 0.0                | 0.0                | 43.7               | 0.0                | 0.0                | 56.3               |
| Czech Republic                   | 28.9               | 11.3               | 11.6               | 2.3                | 23.3               | 22.6               |
| Denmark                          | 10.8               | 54.2               | 4.2                | 23.2               | 3.3                | 4.2                |
| Estonia                          | 37.9               | 7.4                | 7.9                | 15.0               | 17.8               | 14.0               |
| Finland                          | 18.7               | 24.4               | 14.6               | 29.1               | 6.2                | 7.0                |
| France                           | 16.5               | 16.7               | 18.7               | 1.1                | 12.4               | 34.7               |
| Greece                           | 2.4                | 11.1               | 39.5               | 0.0                | 20.2               | 26.8               |
| Hungary                          | 28.3               | 13.2               | 17.7               | 13.6               | 8.1                | 19.1               |
| Ireland                          | 16.1               | 9.4                | 3.6                | 0.0                | 26.3               | 44.7               |
| Italy                            | 8.1                | 4.7                | 15.7               | 44.2               | 13.9               | 13.4               |
| Latvia                           | 37.4               | 6.9                | 10.2               | 11.4               | 16.9               | 17.3               |
| Lithuania                        | 41.0               | 8.3                | 6.5                | 20.2               | 5.0                | 19.1               |
| Luxembourg                       | 21.4               | 4.4                | 22.0               | 0.1                | 16.1               | 36.0               |
| Malta                            | 0.0                | 0.0                | 52.2               | 0.0                | 15.5               | 32.3               |
| Netherlands                      | 28.4               | 13.8               | 16.0               | 1.6                | 16.8               | 23.4               |
| Poland                           | 26.6               | 11.5               | 9.2                | 16.0               | 16.1               | 20.5               |
| Portugal                         | 9.7                | 6.4                | 31.7               | 5.3                | 19.0               | 28.0               |
| Romania                          | 25.6               | 17.3               | 12.4               | 2.1                | 18.8               | 23.9               |
| Slovakia                         | 39.4               | 7.2                | 17.6               | 0.4                | 13.6               | 21.7               |
| Slovenia                         | 35.5               | 9.0                | 11.1               | 10.4               | 12.9               | 21.0               |
| Spain                            | 19.9               | 6.9                | 15.9               | 25.8               | 13.5               | 18.0               |
| Sweden                           | 21.2               | 26.5               | 11.1               | 27.2               | 6.1                | 7.9                |
| United Kingdom                   | 32.5               | 28.5               | 5.7                | 0.0                | 8.6                | 24.8               |
| <b>Total EU 27</b>               | <b>20.8</b>        | <b>19.5</b>        | <b>15.9</b>        | <b>13.1</b>        | <b>11.8</b>        | <b>18.8</b>        |
| <b><i>Local sector alone</i></b> | <b><i>19.4</i></b> | <b><i>18.7</i></b> | <b><i>14.0</i></b> | <b><i>15.5</i></b> | <b><i>11.9</i></b> | <b><i>20.5</i></b> |

\* Housing and community amenities, public order and safety, recreation and culture, environment and defence. Source: Dexia (2012)



Photo: Epsos

## 5.4

### Meeting the needs of the population: solidarity, social dialogue and citizen participation

Basic public services exist to meet the basic needs of citizens and communities. Services therefore evolve over time according to evolving needs and technological change.

#### Overview of access to basic public services

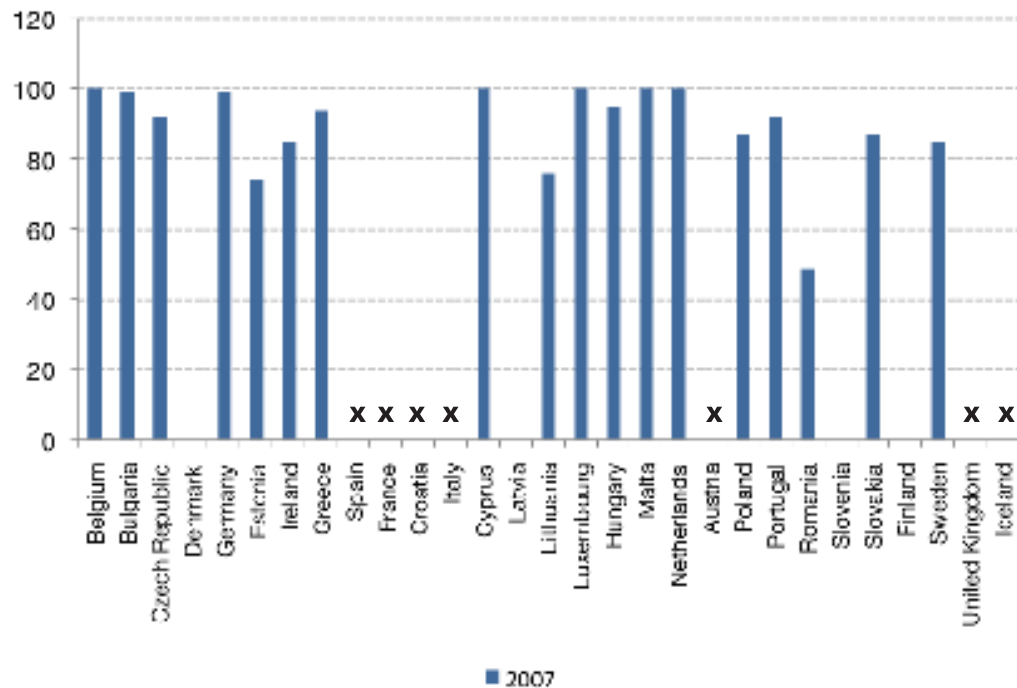
Overall, in Europe, access to basic services is much more extended than in other parts of the world. At the same time, available statistics show that access is not ensured everywhere and for all users .

#### *Water and sanitation*

There is still an East–West divide in access to safe drinking-water in Europe. In many Western countries, close to 100% of the population have had access to a public water supply since the 1990s. In the Eastern part of the continent, access is improving but remains lower, particularly in rural areas,<sup>78</sup> where investment is expensive in relation to local resources. Therefore, in these regions, the population has access to water through catchments situated either on their land (wells in the proximity of

<sup>78</sup> WHO – ENHIS (2009).

**Figure 5.5 Population connected to public water supply in some European countries (2007) (%)**



Source: Eurostat <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&plugin=1&language=en&pcode=ten00012>

households with/without a pump) or on the land of the municipality (free public wells) (see Figure 5.5).

There is even greater variation between and within European countries in the share of the population with a connection to wastewater treatment facilities. However, as in the field of water, coverage has increased in the last decade. In countries with a long tradition of wastewater treatment (in particular those in Northern Europe), more than 85% of the population has access to this service, while in southern European countries the proportion falls to 40-60%, with access levels even lower in the East. There is also a significant rural-urban divide in this sector (see Table 5.5).

#### **Solid waste management**

Access to solid waste services also varies. In some countries, not all households

are connected to waste collection, in particular in some Central, Eastern and Baltic countries,<sup>79</sup> as well as in Cyprus, Greece, Ireland,<sup>80</sup> Italy and Spain. The quality of waste collection services is also problematic in some areas (particularly in rural and remote areas).<sup>81</sup> Waste generated ranges from 0.8 kg per capita to 14.8 kg per capita,<sup>82</sup> while collection rates range from 70% to 100% (2010, EU 27). The disparities between rates of selective collection are even more significant, both between and within countries.

#### **Broadband access**

In the framework of EU 2020 Strategy, the European Commission defined “a Digital Agenda for Europe” at the end of 2010. It proposed a package of three measures to guarantee access to broadband to all European citizens by 2013 and access



**Access to broadband is still only managed as a basic public service in a few countries.**

<sup>79</sup> Rural areas in these countries might suffer from values down to zero.

<sup>80</sup> In the 1980s, some of these countries start implementing the ‘3R Principles’ (reduce, reuse, recycle).

<sup>81</sup> In Ireland and Sweden, remote areas might practice with some “self-disposal” systems.

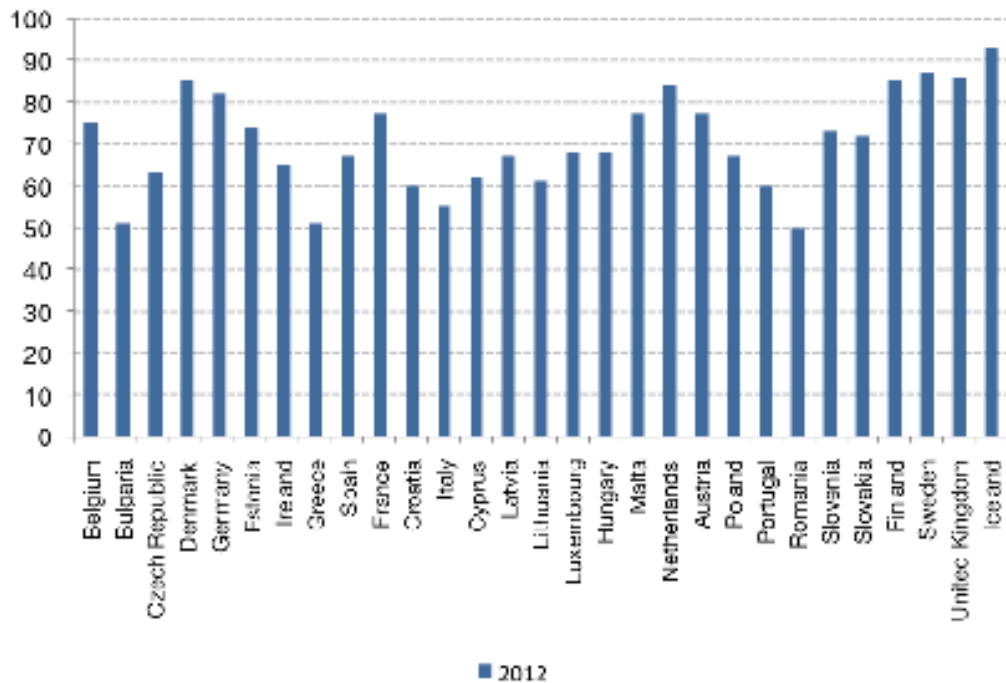
<sup>82</sup> According to available European statistics, the average amount of municipal solid waste produced in the EU was 520 kg/inhabitant/year (414 – 784 kg/inhabitant/year).



**Table 5.5 Population connected to urban wastewater collection and treatment systems (% of total)**

|                   | 1999      | 2009      |
|-------------------|-----------|-----------|
| Austria           | 85 (2000) | 93 (2008) |
| Belgium           | 39        | 71 (2008) |
| Bulgaria          | 36        | 45        |
| Croatia           | 9 (2000)  | 29 (2007) |
| Czech Republic    | 62        | 76 (2008) |
| Cyprus            | 13        | 30 (2005) |
| Denmark           | NA        | NA        |
| Estonia           | 69        | 80        |
| Finland           | 80        | n/a       |
| Germany           | 93 (2001) | 95 (2007) |
| Greece            | NA        | 87        |
| Hungary           | 29        | 57 (2006) |
| Ireland           | 66        | 84 (2005) |
| France            | 79 (2001) | NA        |
| Italy             | 69        | NA        |
| Latvia            | 65 (2002) | 65 (2007) |
| Lithuania         | 57 (2002) | 71        |
| Luxembourg        | 93        | NA        |
| Malta             | 13        | 48        |
| Netherlands       | 98        | 99        |
| Poland            | 52        | 64        |
| Portugal          | 57 (2002) | 70 (2008) |
| Romania           | n/a       | 29        |
| Slovakia          | 50        | 57 (2007) |
| Slovenia          | 21        | 52        |
| Spain             | NA        | 92 (2009) |
| Sweden            | 86 (2000) | NA        |
| United Kingdom    | NA        | NA        |
| England and Wales | 92        | 97        |
| Scotland          | 80 (2001) | 91 (2005) |
| Northern Ireland  | 83        | 81        |
| Iceland           | 16        | 57 (2005) |
| Norway            | 73        | 79        |

Source: Eurostat, <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=ten00021>

**Figure 5.6 Households with access to broadband (% of all households)**

Source: Eurostat, <http://epp.eurostat.ec.europa.eu/tgm/graphDownload.do?tab=graph&language=en&plugin=1&pcode=tin00073>

to high-speed and ultra-fast broadband (30 Mbps or above) by 2020, with 50% of households receiving speeds above 100 Mbps [COM (2010) 245 of 19 May 2010 and COM (2010) 472 of 20 September 2010]. Access to broadband is still only managed as a basic public service in a few countries, but increasing numbers of municipalities are setting up free Internet access in public places (see Figure 5.6).

#### **Childcare and elder care**

Demand for and access to childcare varies widely across and within EU Member States. In some cases, variations are due to extended parental leave arrangements and/or the role of the family in satisfying childcare needs, e.g. in Ukraine (see Table 5.6).<sup>83</sup>

Similarly, services for elderly (home care services or residential/day care services) vary considerably across countries. In gen-

eral, they account for a small part of social services, except in the Nordic countries (Sweden, Norway and Denmark), where they make up more than 1% of GDP. At the same time, if the forecasts on ageing demographic population prove accurate (even if the characteristics of the elderly change), the demand for elderly services is expected to grow. There are remarkable differences in levels of elderly care provision, for instance, 62% of the oldest age group (85+ years old) in Norway uses home care services compared to 7% in Estonia (80+ years old). The use of institutional care varies from 4% in Estonia and 8% in Spain to 34% in Denmark and 40% in Iceland.<sup>84</sup>

#### **Organizing the expression of citizens' and users' needs**

The effective governance of basic public services requires the organization of the changing needs of citizens. By combining



**There are remarkable differences in levels of elderly care provision.**

<sup>83</sup> See country sheet at [www.uclgold.org/](http://www.uclgold.org/)

<sup>84</sup> For the share of age group using services for elderly, see Vaalavuo (2011) p. 21.

**Table 5.6 Provision of childcare<sup>85</sup> in European countries (2010, % of all children in the same group)**

| Member State   | Up to 3 years<br>(Barcelona targets 33%) |                     |       | 3 years – compulsory school age<br>(Barcelona targets 90%) |                     |       | Admission age<br>to mandatory<br>school (pre-pri-<br>mary Included) |
|----------------|--|---------------------|-------|--|---------------------|-------|---|
|                | 1-29<br>hours/<br>week                   | 30 hours<br>or more | Total | 1-29<br>hours/<br>week                                     | 30 hours<br>or more | Total |   |
| EU-27          | 14                                       | 14                  | 28    | 39   | 45                  | 84    | 6   |
| Austria        | 6*                                       | 3*                  | 9     | 58   | 26                  | 84    | 6   |
| Belgium        | 17                                       | 19                  | 36    | 36   | 63                  | 99    | 6   |
| Bulgaria       | 1*                                       | 6*                  | 7     | 4*   | 50                  | 54    | 7   |
| Cyprus         | 11*                                      | 13*                 | 24    | 35   | 46                  | 81    | 6   |
| Czech Rep.     | 2*                                       | 0*                  | 2     | 32   | 39                  | 71    | 6   |
| Denmark        | 10*                                      | 68                  | 78    | 15   | 75                  | 90    | 7   |
| Estonia        | 2*                                       | 19                  | 21    | 6*   | 86                  | 92    | 7   |
| Finland        | 8  | 20                  | 28    | 21   | 56                  | 77    | 7   |
| France         | 17                                       | 26                  | 43    | 47   | 47                  | 94    | 6   |
| Germany        | 7*                                       | 13                  | 20    | 46   | 46                  | 92    | 6   |
| Greece         | 3*                                       | 5*                  | 8     | 46   | 23                  | 69    | 6   |
| Hungary        | 1*                                       | 8                   | 9     | 14   | 65                  | 79    | 6   |
| Ireland        | 21                                       | 8*                  | 29    | 73   | 17                  | 90    | 6   |
| Italy          | 6  | 16                  | 22    | 17   | 70                  | 87    | 6   |
| Latvia         | 1*                                       | 15                  | 26    | 5*   | 59                  | 64    | 5   |
| Lithuania      | 2*                                       | 11*                 | 13    | 9*   | 58                  | 67    | 7   |
| Luxembourg     | 17                                       | 19                  | 36    | 42   | 37                  | 79    | 4   |
| Malta          | 7*                                       | 4*                  | 11    | 25*  | 49                  | 74    | 5   |
| Netherlands    | 44                                       | 6*                  | 50    | 76   | 15                  | 91    | 5   |
| Poland         | 0*                                       | 2*                  | 2     | 10   | 32                  | 42    | 6   |
| Portugal       | 5*                                       | 32                  | 37    | 11*  | 68                  | 79    | 6   |
| Romania        | 4*                                       | 3*                  | 7     | 49   | 17*                 | 66    | 6   |
| Slovenia       | 4*                                       | 33                  | 37    | 14   | 77                  | 91    | 6   |
| Slovakia       | 0*                                       | 3*                  | 3     | 8*   | 64                  | 72    | 6   |
| Spain          | 20                                       | 18                  | 38    | 45   | 50                  | 95    | 6   |
| Sweden         | 18                                       | 33                  | 51    | 29   | 65                  | 94    | 7   |
| United Kingdom | 31                                       | 4*                  | 35    | 67   | 22                  | 89    | 5   |
| Iceland        | 3*                                       | 37                  | 40    | 6*   | 92                  | 98    |   |
| Norway         | 10*                                      | 37                  | 47    | 15   | 65                  | 80    |   |
| Croatia        | 1*                                       | 7*                  | 8     | 13*  | 29                  | 42    |   |

Source: Eurostat [http://epp.eurostat.ec.europa.eu/portal/page/portal/product\\_details/dataset?p\\_product\\_code=TPS00185](http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/dataset?p_product_code=TPS00185)

\* = low reliability<sup>86</sup>

<sup>85</sup> According to EU-SILC, this category includes all care organized and/or controlled by a structure: pre-school or equivalent, compulsory education, centre-based services outside school hours, collective crèche or another day-care centre, including family day-care, professional certified child minders.

<sup>86</sup> The Urban Audit 2004 clearly shows childcare discrepancies in a sample of 133 European cities of different sizes: it goes from the lowest score of 41 children in Innsbruck (Austria) to the highest score of 934 children in Nyíregyháza (Hungary). [www.urbanaudit.org](http://www.urbanaudit.org)



### Box 5.10 Participation of users

In **Cyprus**, a number of formal and informal arrangements exist to allow citizen participation in decision-making: open meetings of local councils, referendums, websites, public meetings, public consultations, etc. However, in practice, representative forms of citizens' participation continue to play an important role (for example, the participation of municipal councillors in Water Supply Councils and Sewerage Boards). In contrast, in the social sector, the involvement of parents in school councils or the activity of volunteers in elderly care centres are forms of user participation in service governance, though it is difficult to evaluate the extent of their influence in decision-making.

In **England**,<sup>87</sup> water consumers have a recognized right to participate in the establishment of water tariffs and quality standards in England. They have opportunities to participate in consultations initiated by the central government, the Environment Agency and OFWAT, to set service standards and tariff limits.

In **France**,<sup>88</sup> legislation offers users increasing opportunities to participate. Still, water consumers have stressed the difficulties of having representatives in Consultative Committees for Local Public Services. Consumer representatives work on voluntary basis and need to cover a wide number of topics to exercise their responsibilities. Asymmetries of knowledge and resources between consumers, private providers and public authorities have been highlighted as one of the main practical limitations on public participation.

In **Scotland**, Community Planning Partnerships are statutory bodies defined by law. They are made up by Local Authorities, Health Boards, the Enterprise Networks, Police, Fire and Regional Transport Partnerships. The CPPs are currently under review. According to its "Statement of Ambition," the Scottish Government and local governments are reforming CPPs so they are able to engage closely with the needs and aspirations of their communities within the context of local and national democratic control, with strategic oversight of other specific arrangements and accountability for key aspects of public service delivery. CPPs must therefore be able to influence and drive planning and investment decisions by partners towards achieving the outcomes set out in Single Outcome Agreements (SOAs).

In **Finland**, there are a number of mechanisms used to gather and respond to complaints from service users, including client panels, electronic feedback systems, service inquiries, and feedback boxes. Residents also have the right to appeal municipal decisions, to propose initiatives in municipal issues and to express their views to those in charge of planning and decisions. Patients may appeal decisions, file objections concerning a particular service or treatment procedure to the responsible authority, or complain to the supervising authority. In such cases, complaints and objections are handled by municipal social service ombudsmen or health care ombudsmen and by the social and health departments of the State Provincial Offices. Municipal social service ombudsmen also assist clients in appealing decisions and in making complaints. In other fields (e.g. sanitation and elderly care) authorized agents for patients (*potilasasiamies*) bring complaints to relevant officials (*potilasturvalakija –asiamies*).

<sup>87</sup> See for details and other national cases, Garcia Quesada (2011) p. 102.

<sup>88</sup> Garcia-Quesada pp. 138-139; Simpson (2012).

different levels of organization and facilitating a democratic debate with citizens and users, solutions can be found to ensure that needs are met.

The sole purpose of basic public services is to meet evolving public needs. With this in mind, organizing systematically the expression of the needs of each user, as well as of social groups and the public service personnel that make service work, is essential. This expression of needs must be decentralized so that it is as close as possible to those who live and feel citizens' expectations. All available means, including consultations and public debates, formal expressions of needs, complaint handling, election of users' committees, should be employed to meet this objective.

The democratic expression of needs and aspirations is the basis of the legitimacy of all public services. The provisions of the Protocol 26 of the Lisbon Treaty consecrate the needs of users within the framework of EU "common values" of SGEI.

Methods of participation vary by country, and may take the form of open meetings of local councils, referendums, online debate and feedback, public meetings, and public consultations (see Box 5.10).

European rules do not require Member States to create regulatory agencies for the basic public services covered in this report, other than for electricity and broadband. Such agencies are uncommon at national and local levels.

### ***Defining alternative solutions and organizing public debates***

Meeting users' needs while ensuring "a high level of quality, safety and affordability, equal treatment and the promotion of universal access and of user rights", as called for in the Lisbon Treaty, requires the consideration of a range of technical, economic, sectoral, inter-modal solutions, their advantages, disadvantages and costs.

Local governments of several European countries organise public debates on these alternatives with interested parties: users, operators and their staff, and elected officials.

Still, the participation of all stakeholders may extend as far as the use of consultations or decision-making referendums, as is done in Italy. In this country, water services were traditionally provided by the direct public operation of networks, regional planning of infrastructure and a high level of subsidies for investment. In the last decade, water management system saw far-reaching reforms and the Law n° 36/1994 instituted a compulsory association of municipalities (an inter-municipal agency) within each new management unit (ATO – 'optimal territorial units') to ensure a vertical integration of responsibility across the whole urban water cycle and a single operator for all services. The Law Decree n° 135/2009 imposed compulsory competitive tendering and the termination of all in-house management models. However, on 19 July 2010, Italian citizens asked, through the Italian Forum of the Water Movements, for a referendum on water.

At the referendum of 12 and 13 June 2011, the necessary quorum was attained (57% of the population with the right to vote), and 95% of the voters participating in the referendum voted to repeal the rules allowing the management of local public services to be entrusted to the private sector<sup>89</sup> as well as regulations governing the determination of the water service tariff based on an adequate return on invested capital.

### ***A strategic social dialogue***

Effective governance requires the development of a strategic social dialogue to converge users' expectations with those of workers and trade unions.

Social dialogue is rooted in the history of the European continent, and this heritage

<sup>89</sup> Ronchi decree of 2009 stated the transformation of all water distribution public enterprises in mixed companies, with at least 40% of private shares.





**The role of trade unions is more significant in the public sector than in the private, and former public monopoly providers have often played a key role in the sector's industrial relations.**

distinguishes the European Union from most other regions of the world.

Social dialogue takes various forms in different countries and sectors, with employees of basic public services, from both the public and private sectors, having varying levels of representation.

Due to their particular tasks, public services may have particular norms of employment, industrial relations and social dialogue. Whilst public authorities have a key role in the definition, organization and regulation of public services, the role of the state and public authorities in social dialogue and bargaining varies considerably across Europe. Some countries have a strong tradition of negotiation and consensus, while others have a tradition of greater social conflict. There are still differences between representativeness and industrial relations in the public sector, in particular between public-controlled activities or enterprises and operators under private ownership. In some countries or regions, some public service areas are not covered by col-

lective bargaining; there is a great diversity in the EU.

The Swedish case is one of the best examples of the participation of employees in the governance of basic public services, in particular through their collaboration in staff meetings and regular surveys, which are standard practices in Swedish municipalities. Employees are also insured participation and influence by the MBL and AB (collective bargaining agreement). Unions have the right to take part in proposed organizational changes and to request a hearing. Nevertheless, all of the following countries have particularly strong local representation, due to their strong, autonomous local governments: Finland, Denmark, Iceland, Norway, Germany, The Netherlands, Austria, Belgium, Luxembourg and Spain.<sup>90</sup>

However, the role of trade unions is more significant in the public sector than in the private, and former public monopoly providers have often played a key role in the sector's industrial relations. They continue to have a dominant position in many public



#### Box 5.11 A typology of industrial relations

The 2008 European Commission report on industrial relations included a typology of national industrial relations arrangements, which groups the EU Member States into five regimes, taking into account union and employer organization, the power relations between them, levels and styles of bargaining, the space for social partner intervention in public policy and for state intervention in union-employer relations:

*North:* the “organized corporatism” of the Nordic states (Denmark, Finland and Sweden);

*Centre-West:* the “social partnership” of Austria, Belgium, Germany, Luxembourg, the Netherlands and Slovenia ;

*South:* the “state centred” approach of France, Greece, Italy, Portugal and Spain;

*West:* the “liberal” pluralism of Cyprus, Ireland, Malta and the UK;

*Centre-East:* a “mixed” approach (polarized or state-centred regime) made up of Bulgaria, the Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Romania and Slovakia.

<sup>90</sup> A study by CEMR and EPSU provides a concise overview: [http://www.ccre.org/en/champsactivites/detail\\_news/1642](http://www.ccre.org/en/champsactivites/detail_news/1642)

services. In many countries or sectors, the private providers of public services are less well-represented in social dialogues and industrial relations, and sometimes not involved in them at all. Also, social partnership structures are less developed or even absent in small-size areas, and within the new entrants/operators, with differences between sectors and countries (see Box 5.11).<sup>91</sup> In all, there is a general erosion of the special public status of some employment areas and a decline in unionisation levels, which ranges from 5% to 90%.<sup>92</sup> At the same time, in most areas of public services both public and private employment regulation applies. Differences are more complex from a sectoral perspective. The role of social partners also differs between countries, according to national traditions, institutions and practices.

There are several provisions in the TFEU Treaty and European labour law that aim to strengthen social dialogue and the role of social partners at European, national, sectoral, local and company level. While the Treaty establishes and institutionalizes social dialogue at EU level (European – cross-industry and sectoral-social dialogue), several European directives, policy guidelines and recommendations also aim to enhance social dialogue between social partners at national, local and company level.<sup>93</sup>

Sectoral social dialogue committees have been gradually created at EU level.<sup>94</sup> There is one such committee for electricity, which mainly concerns the big European operators and, to a lesser extent, local services, and one for local and regional governments (where CEMR is the organization representing the employers) but this does not cover the basic local service sectors covered by GOLD III report. The Sectoral Social Dialogue Committee in Local and Regional Government was formally created in 2004. All 27 EU countries take part in this Commit-

tee. It meets at least four times a year and is presided by the chairs of the trade union and employers group. CEMR and EPSU are the representative employers and trade union organizations that organize regular social dialogue meetings on a number of themes pertaining to local and regional government as a workplace.<sup>95</sup>

### ***Public authorities' decisions: the essential role of citizens and elected officials***

Public authorities and elected officials play an essential role in organizing the evaluation and control of services to ensure their adaptability to changing needs. Without removing the responsibilities of choice, arbitration, and decision-making from public authorities and elected officials, the decentralized expression of the needs and expectations of users gives them a better knowledge of the challenges they face and the choices on offer.

At the same time, public authorities must assume the ultimate responsibility for defining the objectives of each public service, implementing the best ways to achieve them, and organizing and evaluating results and adapting the decisions they take accordingly.

### ***Developing evaluation and control: implementing changeability***

The aim of this report was not to undertake a complete evaluation of the effectiveness and efficiency of local services in Europe. One can observe that European institutions have not developed such systematic evaluation, which deprives them of key elements for pertinent governance.

The use of specific indicators to evaluate the performance of basic services and municipalities is being developed at national and local level, some of which are made public and/or involve the direct or indirect participation of service users (see Box 5.12).

<sup>91</sup> Bauby and Similie (2010) p. 73.

<sup>92</sup> <http://www.eurofound.europa.eu/eiro/index.htm>

<sup>93</sup> Bauby and Similie (2010) p. 62.

<sup>94</sup> <http://ec.europa.eu/social/main.jsp?catId=480>

<sup>95</sup> In December 2012, the Committee adopted its 'Framework of Action', setting out six priorities of action for Local Government in the area of 'Future of the Workplace'. It is available here: [http://www.ccre.org/en/champsactivites/detail\\_news/2282](http://www.ccre.org/en/champsactivites/detail_news/2282)



### Box 5.12 Evaluation and benchmarking

In **Denmark**,<sup>96</sup> there is an open (online) monitoring system containing about 200 indicators covering the structural and financial situation of each municipality in the main areas of municipal activity. In **Finland**, the SOTKANet Statistics and Indicator Bank<sup>97</sup> contains about 1500 indicators providing open (online) information on welfare and health. In **Ireland**, the Local Government Management Agency has published an annual Service Indicators Report since 2004.<sup>98</sup> In **Norway**, the Local Government Data Registration and Information Scheme (KOSTRA<sup>99</sup>) has presented key data on 16 service areas of more than 95% of municipalities since 1995. In the **Netherlands**, the Institute for Social Research has published annual 'Measurements for Municipalities' (*Matenvoorgemeenten*) since 2003.<sup>100</sup> However, research remains to be done on the link between indicators and their impact on policy-making and the evolution of basic services.

In **Sweden**, users may receive compensation in case of the failure of service provision. Depending on the sectors and/or municipalities, this may be conferred on a case-by-case basis or on the basis of a general regulation. For example, electricity interruptions are compensated as follows: for interruptions between 12 and 24 hours, a 12.5% reduction of the annual fee will be applied; for interruptions between 24-48 hours a reduction of 37.5%, for interruptions between 48-72 hours, a reduction of 62.5% and an additional reduction of 25% for each 24-hour period over 72 hours. However, the GOLD III Survey revealed that the use of compensation in the electricity sector is an exception in Sweden. In general, the country uses service guarantees.

Source: For Sweden, GOLD III Europe national country sheet

<sup>96</sup> [www.noegletal.dk](http://www.noegletal.dk) (in Danish language).

<sup>97</sup> [www.sotkanet.fi](http://www.sotkanet.fi) (in English language).

<sup>98</sup> <http://www.lgmsb.ie/en/publication-category/service-indicator-reports-2004-2010>

<sup>99</sup> Data available on [http://statbank.ssb.no/statistikbanken/Default\\_FR.asp?PXSid=0&nvl=true&PLanguage=1&tilside=selecttable/MenuSelS.asp&SubjectCode=17](http://statbank.ssb.no/statistikbanken/Default_FR.asp?PXSid=0&nvl=true&PLanguage=1&tilside=selecttable/MenuSelS.asp&SubjectCode=17)

<sup>100</sup> For summaries in English see [http://www.scp.nl/english/Publications/Summaries\\_by\\_year/Summaries\\_2012/Measurements\\_for\\_municipalities\\_2012](http://www.scp.nl/english/Publications/Summaries_by_year/Summaries_2012/Measurements_for_municipalities_2012)



Photo: Boheme

## 5.5

### Existing and emerging challenges: the future of basic public services

The financial, economic and social crisis that began in 2008 has raised new questions for basic public services. A 'scissor effect' is developing: on the one hand, new needs are emerging due to the increasing vulnerability and poverty of an increasing proportion of EU population. Meeting these needs is the *raison d'être* of public services. However, on the other hand, basic public services and their users are confronted with a shortage of resources and are suffering from the effects of adjustment and austerity policies.

The most recent wave of enlargement in 2007 considerably increased disparities between the regions of the Union,<sup>101</sup> during the financial, economic and social crisis, almost all the countries of the Union experienced a negative rate of growth of GDP. At the same time, this varied considerably, both from country to country<sup>102</sup> and within countries. In 2010, in most of the countries of the EU, GDP began to grow, but the rates of growth were varied and did not compensate for the drops of the previous quarters. In some countries of the Union, the contraction of GDP continued in 2010.<sup>103</sup> Employment and unemployment figures

<sup>101</sup> In 2007, per capita GDP stood at 26% of the community average for the poorest region, in Bulgaria, and at 334% for the richest region, in the United Kingdom.

<sup>102</sup> Going from a decline of 18% in Latvia to 2.6% in France.

<sup>103</sup> From 1.3% in Romania to 0.1% in Spain.



mirrored these changes, with a sharp increase in the unemployment rate in some countries, particularly in urban areas. In fact, across the countries of the EU, only two countries, Germany and Poland, saw improvements in this indicator during the 2008-2010 period.

### ***Meeting the challenges of the crisis and its effects***

Basic public services have acted as 'shock absorber' of the effects of the crisis. From this perspective, the current situation requires them to be strengthened, both in quality and number. For instance, local governments in Iceland, Spain or Cyprus, Lithuania, Finland and Ukraine are responding to the challenges of the crisis in a variety of ways:

**Iceland:** According to our survey of local leaders, local services have been affected by the current crisis. Representatives of the capital city underline the deterioration of all services, in particular water, sanitation and electricity supply. The lack of funding to improve or extend services and European regulations are, according to the survey, the principal challenges that will impact all local basic services in the next 10 years. Increasing energy prices, changes in population age structure and number, development of new services to meet new demands are other concerns.

**Spain:** Most local councils report budget cuts, non-payment by users, higher fees to balance income and expenditure, reduction of personnel and material and a decrease in the efficiency of delivery. Mayors consulted are trying to prevent the crisis from impacting on basic public services. However, in terms of the challenges for basic public services in the next 10 years, almost all answers indicate that the current economic crisis will be decisive in the quality of services that will be available.

**Cyprus:** The current crisis has led, in some sectors, to reduced financing for local ba-

sic services. The payment and collection of fees and taxes (including increasing fees for vulnerable users e.g. the elderly) also appear to be difficult in some municipalities, which indirectly affects local service funding; some services could not be financed without support from the central government (e.g. municipal kindergartens).

**Lithuania:** While improvements to Lithuanian basic public services have been seen in the last five years, the current crisis has had an impact on them, too. The GOLD III survey results highlighted a reduction of funds for infrastructure investments and repairs, reduced payment capacities of users, which caused slightly reduced consumption, a slight increase in the amount of delayed payments, but also the deterioration of some social services during the crisis (increased number of people entitled to receive social benefits but delayed financial transfers from the central government – e.g. for public transport). For the mayors responding to GOLD III project survey, the lack of funding to improve or extend services (with the exception of waste and broadband services) will remain the main challenge in the next decade, along with demographic changes, the impact of EU policies and law, increasing energy prices and the development of renewable energies, rural issues and aging infrastructure. Ensuring equal access to basic services in rural areas remains problematic.

**Finland:** From the point of view of public governance, the main coordinating problems appear when several levels of public authorities and regulations are involved in the organization and management of services (for instance, in the case of EU-funding). The GOLD III survey underlined the need to take into account local conditions (for example in case of national standardization), the need for more dialogue between different levels, and greater flexibility in the rules. In general, the current economic crisis reduces municipalities' tax-based earnings



**Basic public services and their users are confronted with a shortage of resources and are suffering from the effects of adjustment and austerity policies.**



and causes the deterioration of some services or the decrease in their frequency (e.g. in public transport). In this context, maintaining the current condition of supply, and improving or extending services may be a challenge in some sectors (e.g. water infrastructure, electricity, social services). In some social fields, non-statutory services are being removed, subsidies minimized, and processes refined to become more productive. On the other hand, the economic crisis has affected organizations' financial expenses. For some elected officials, "the responsibility of families or people themselves should be told more clearly, now it is too heavy obligation for municipalities to organize many services. Child day-care and elderly care needs much developing work and responsibility for families, too."

**Ukraine:** The current crisis is being felt in different ways by municipalities and services. These include decreased or insufficient funding from local and state budgets for the operation and/or modernization of services, a worsening investment climate, as well as reduced payment capacity from users. Some municipalities consider that crisis has had no effect (either in general or in particular sectors). For others, the fact that tariffs do not cover the price of service provision constitutes the main challenge of financing these services. Due to limited public financial resources, a decrease in the number of users is noted in some municipalities and services (early childhood care and elderly care).

**Profound changes: demography and mobility, inequality, exclusion and poverty, climate change and sustainability, ICT**




European local communities face a great diversity of challenges and have different resources with which to deal with them. At the same time, there are several common issues currently affecting basic services and their sustainable development: demographic and

climate change, energy efficiency and the development of renewable energy and ICT.

Recent research<sup>104</sup> has shown the diversity of Europe in terms of demographic and migratory<sup>105</sup> development, however, it has also identified common demographic trends at regional level: general population growth in some regions due to (international or European) migrations *versus* a minority of regions affected by depopulation (e.g. in Bulgaria, Eastern Germany, Poland, Romania, Latvia and Lithuania); low fertility levels in the majority of European regions; increasing life expectancy and an ageing population (although this increase varies); a decline in the younger workforce (though it has increased in Ireland, Spain and large parts of Eastern Europe). Population dynamics and the implicit intercultural movement impact on basic services in different ways.

European countries and cities also vary in terms of economic development and social structure. At the same time, they share a

**Long-term challenges in Europe**

| Demographic & migratory changes   | Inequalities, exclusion and poverty  | Climate change  |
|---|--|---|
|    |   |    |
| <ul style="list-style-type: none"> <li>· Low fertility levels</li> <li>· Increasing life expectancy</li> <li>· Ageing population</li> <li>· Decline in the younger workforce</li> </ul> | <ul style="list-style-type: none"> <li>· Exclusion and poverty linked to urban phenomena</li> <li>· Concentration of immigrant &amp; disadvantaged communities in suburbs</li> </ul> | <ul style="list-style-type: none"> <li>· Increasing need for solutions to pollution, greenhouse emission, traffic congestion, water, and solid waste and energy management</li> </ul> |

common trend of growing inequality, (more or less concentrated) even if this appears rather modest compared to some other regions of the world.<sup>106</sup> This trend is particularly important as it directly affects social policies and services and, more generally, the



**The impact of climate change also varies across service sectors, social groups and communities.**

<sup>104</sup> ESPON (2011).

<sup>105</sup> For statistical data see [epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Migration\\_and\\_migrant\\_population\\_statistics](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Migration_and_migrant_population_statistics)

<sup>106</sup> For some European countries see Fredriksen (2012).

mechanisms for guaranteeing universal access to basic services and for reducing social exclusion. While many people live now in urban (and suburban) areas (with some metropolitan regions accounting for nearly half of the national population), and the proportion of the population in urban areas is expected to grow, these issues also affect rural areas. Exclusion and poverty are linked to urban phenomena, which can take different forms, and can have different effects, according to countries and cities. In some regions, the concentration or settlement of immigrant and disadvantaged communities in suburbs creates specific new needs. Sometimes, the creation of new basic public services and infrastructure in new urban and/or suburban areas, adapted to specific needs of immigrants or minority population, go hand in hand with urban/suburban sprawl.

European regions<sup>107</sup> are also affected to various degrees by climate change. The specific effects of climate change vary significantly, as do regional capacities to deal with them. The impact of climate change also varies across service sectors, social groups and communities. The increasing rate of urbanization will increase the need for solutions to pollution, green gas emission, traffic congestion, water, and solid waste and energy management in urban areas.<sup>108</sup> Many aspects of environmental policy are already formulated or implemented at the local level<sup>109</sup> and many municipal environmental initiatives and networks are underway.<sup>110</sup>

Municipalities are directly implicated in energy consumption (public lighting, transportation, building regulation and energy efficiency programmes),<sup>111</sup> production and distribution (district heating, viewed today as a way to address climate change). At the same time, there are significant discrepancies between municipalities and countries in terms of energy needs, resources available and consumption levels, as well in the use

of energy efficiency programmes (decoupling energy consumption from economic growth). Climate change has led to the development of renewable energies (with some countries and cities doing so long before European and international attention was focussed on this field) and increases in the cost of energy, which indirectly impacts on social protection costs. This has gradually caused municipalities to consider using and, in some cases, investing in renewable energy production and energy efficiency programmes. The EU's 2020 Strategy is an important incentive; it aims to decrease greenhouse gas emissions to levels 20% lower than 1990 by 2020; it also aims for 20% of energy to be generated from renewable sources, and at a 20% increase in energy efficiency.

Advances in information and communication technologies (ICT) and digital technologies are changing basic public service delivery and governance. While the use of ICT has grown rapidly over past decades, their expansion has not been uniform and their impact also requires complementary changes in skills and organization. At the household level, studies<sup>112</sup> show that low income is the single most important factor for the lack of access to a computer and the Internet, and that important differences in access exist between urban and rural areas. As for usage, age and economic inactivity are by far the most important correlates with never used a computer or the Internet, while education is the most important determinant of the frequency of Internet use (see Box 5.13).

### ***Greater efficiency and quality***

Cuts to public sector spending and human resources mean that exemplary and innovative management are essential in order for basic public services to be delivered effectively. Governance innovation in local government touches on central policy debates in Europe:

<sup>107</sup> For a recent European analyse, see ESPON Climate Project (2011).

<sup>108</sup> OECD Environmental Outlook 2050, OECD Publishing (2012). See also WBCSD (2012).

<sup>109</sup> In OECD countries, national-local policy co-ordination on climate change has taken three main forms: i) nationally or regionally led policy that enables and influences local action; ii) local or regional action that informs national policy; iii) a hybrid approach in which national priorities are adapted locally. Cf. Corfee-Morlot et al (2009). Urban areas engage in at least four modes of governance through which they can design and implement climate change policy responses. These modes are: self-governing (e.g. municipal operations management and purchasing); governing by provision (e.g. by influencing infrastructure development, programme administration and service delivery in the provision of urban services); governing by authority (e.g. by climate enacting regulations where cities have legal jurisdiction); and governing through enabling (e.g. facilitating co-ordination with private sector and civil society actors). (Corfee-Morlot, (2009) p. 79.



### Box 5.13 Telecare service and support for the elderly – Province of Barcelona

The Province of Barcelona (a second-level local government body made up of the 311 municipalities of the province of Barcelona, with a total population of 5.5 million) gives economic, technical, and training support to local councils in providing basic services. Its three main aims are: to meet the basic needs of citizens and promote social inclusion; to guarantee individual autonomy and freedom throughout life; and to promote equality of opportunity.

One of the Province's areas of work is a service giving increased security and autonomy to the elderly *and* the vulnerable. Specifically, the Province of Barcelona works with local councils to offer a **local telecare service**, which provides support through an alarm system and the monitoring of users, by telephone and in person, 24 hours a day, 365 days a year. The service currently has 61,000 users, and work is being undertaken to adapt the service for people with special needs, such as those with communication difficulties, or who live in isolated areas, as well as to increase accident prevention with the use of safety sensors. The Province has also implemented a programme of small modifications to bathrooms and kitchens, which make housing more accessible, with the aim of allowing elderly people to live with increased safety and autonomy in their own homes. In 2013, 1,152 homes in 88 municipalities have been renovated.

In parallel, the RESPIR Programme of temporary residential placements offers families social and psychological support and guidance, and is used by 1400 elderly people and 500 disabled people annually.

These programmes are conducted in cooperation with municipalities, which provide part of the financing and guarantee that access to the programs is provided through local social services. They are also developed by public-private partnerships between government, businesses and charities, to ensure efficiency and continuous service improvement.

Source: Barcelona Provincial Council. This initiative was an "EIPA-EPISA 2013 Best Practice Certificate Recipient". [http://www.epsa2013.eu/files/BP%20Recipients%20table\\_EPISA2013\\_FINAL.pdf](http://www.epsa2013.eu/files/BP%20Recipients%20table_EPISA2013_FINAL.pdf)

- the growing quest for efficiency and effectiveness;
- the definition and implementation of new services;
- the development of forms of partnership between public authorities, social and cooperative economy as well as with other private operators;
- the definition of solidarity-based funding models (e.g. free access or subsidies).

As part of the quest for efficiency, indicators (sometimes made available to the public) are being developed to evaluate the performance of basic services and municipalities (see above).

Comparisons between prices can be an incentive to improve efficacy and efficiency. Nevertheless, comparisons should be rigorous. In this case, national or local monitoring and evaluation systems might be more appropriate.



**Climate change has led to the development of renewable energies and increases in the cost of energy, which indirectly impacts on social protection costs.**

<sup>110</sup> EU CO2 80/50 project, organised by the Network of European Metropolitan Regions and Areas (METREX), which targets a reduction in GHG emissions by its member cities of 80% on 1990 levels by 2050 (see [www.eurometrex.org/ENT1/EN/Activities/activities.asp?SubCat1=EUCO2](http://www.eurometrex.org/ENT1/EN/Activities/activities.asp?SubCat1=EUCO2)); the Covenant of Mayors, ([www.eumayors.eu/](http://www.eumayors.eu/)); ICLEI's Cities for Climate Protection, which counts over 680 cities as members from over 30 countries worldwide ([www.iclel.org/climate-roadmap](http://www.iclel.org/climate-roadmap)), the C40 Cities Climate Leadership Group, a network of the World's megacities ([www.c40cities.org/](http://www.c40cities.org/)).

<sup>111</sup> For the countries of the Central and Eastern Europe, the energy intensity of industries inherited from the previous period represents(-ed) a specific challenge.

<sup>112</sup> See Montagnier and Wirthmann (2011) p. 14.



The aim of public services is to meet the evolving needs of citizens. They must, therefore, be able to adapt to needs and emerging challenges.

The prices paid by users depend on:

- the costs of the production and distribution of the service;
- the financing model of each service, which could include public financing;
- taxation in each state and region and municipality;
- the inclusion of investment costs;
- the exchange rate between currencies;
- economic and social conditions.

The price paid by users also depends on the specific characteristics of each area. Thus, water prices vary according to the efficiency of operators or to the management model, but depend even more on production costs, which vary considerably depending on whether water is abundant or scarce, and according to water quality, which implies very different treatments to meet the European standards.



#### Box 5.14 Broadband as a universal service

##### Finland

Finland has become the first country in the world to make broadband a legal right for all its citizens. This currently consists of a right to a one megabit per second broadband connection now, with a 100-Mbit/s connection to become a right by the end of 2015.

The law means that telecommunication operators are recognized as universal service providers. They must provide every permanent residence and business office with access to “a reasonably priced and high-quality connection with a downstream rate of at least 1 Mbit/s”. The new service obligation does not apply to summer residences. Early this year, the Finnish Communications Regulatory Authority (FICORA) designated 26 telecommunication operators across Finland as universal service operators. FICORA has set up a website ([www.viestintävirasto.fi](http://www.viestintävirasto.fi)) for Finnish consumers to check which geographic areas have been assigned a universal service operator for the provision of broadband subscriptions, which may be implemented via fixed or wireless technology. FICORA monitors compliance with this new obligation.

*Broadband 2015 project:* According to the Finnish government, the one megabit goal broadband connection for all Finns is an intermediary step. The government will make a 100-Mbit/s broadband connection a legal right by the end of 2015. It has launched a broadband project to connect all Finns, including those living in sparsely-populated areas, to the Internet with fast fibre-optic or cable networks by this date. Telecommunication operators are expected to construct fast connections in densely-populated areas, where there is demand, on market terms. But assistance will be necessary to raise population coverage from 95% to 99% in rural areas. Telecommunication operators will cover at least 34% of the costs, with the rest to be funded by the State (EUR 66 million for the period 2009–2015), municipalities and the European Union’s Rural Development Fund (EUR 24.6 million). Support will be given to projects that are not commercially viable.

In **Spain**, an Internet connection of 1 Mbps has been part of the scope of universal service obligations since 1st January 2012.

Benchmarking prices only makes sense over time in comparable technological, economic and social conditions, but not over space, between countries and geographical areas, or between sectors.

### **Implementing new services – ensuring solidarity funding**

The aim of public services is to meet the evolving needs of citizens. They must, therefore, be able to adapt to needs and emerging challenges.

For the past fifteen years, European law has defined a universal service in the field of telecommunications. However, it is clear that, today, broadband internet access should

also be integrated into this framework, guaranteeing all citizens in Europe the right to broadband services. The experiences of Finland and United Kingdom show the urgency of defining new services of general interest (see Box 5.14).

We could consider banking services or childcare and elderly care as universal basic services. Non-compulsory services with preventive functions (such as preventative health care) could also be viewed as good investments for the future and be excluded from cuts to public services during the crisis (see Box 5.15).



#### **Box 5.15 Community funding and civic participation**

Community-based organizations fund local initiatives and projects through donations and voluntary work. They have become quite popular in Germany and their capital has continuously grown in recent years (from about 30 million Euros in 2004 to 180 million in 2010, with some 35 community foundations having over 1 million euros in capital). They support a large range of projects, in particular in the areas of youth, education, social and intergenerational projects (making up two-thirds of spending in 2010), as well as energy and water management.

In Bavaria, the municipality of Wildpoldsried finances a major part of its engagement in renewable energy production (aiming at energy self-supply by 2020 by means of biogas, biomass, photovoltaic, solar energy, water power, wind power, passive house, and geothermal), wood use within building and water resources protection and biological waste water purification through civic participation. For instance, inhabitants acquired financial interests in one of the five “citizens’ wind power plants.”

The city of Quickborn (20,000 inhabitants) is an example of funding via citizen loans to municipalities. During a severe budget deficit in 2009, this fundraising model allowed the city to raise 4 million Euros from its inhabitants (a minimum loan of 5,000 Euros), who benefited from a 3% interest rate and local public works (school construction and renovation, and an extension of the fire station).

Source: <http://www.die-deutschen-buergerstiftungen.de/de/news-wissen/buergerstiftungswissen/zahlen-und-fakten.html>; <http://alpstar-project.eu/cna-form/the-municipality-of-wildpoldsried-innovative-and-trend-setting/>; <http://www.buergerkredit.de/tag/kommunalfinanzierung> (accessed July 12, 2013)



## CONCLUSION: RENEWED GOVERNANCE OF BASIC PUBLIC SERVICES



**The realities of local public services cannot only be dealt with in traditional national and local frameworks.**

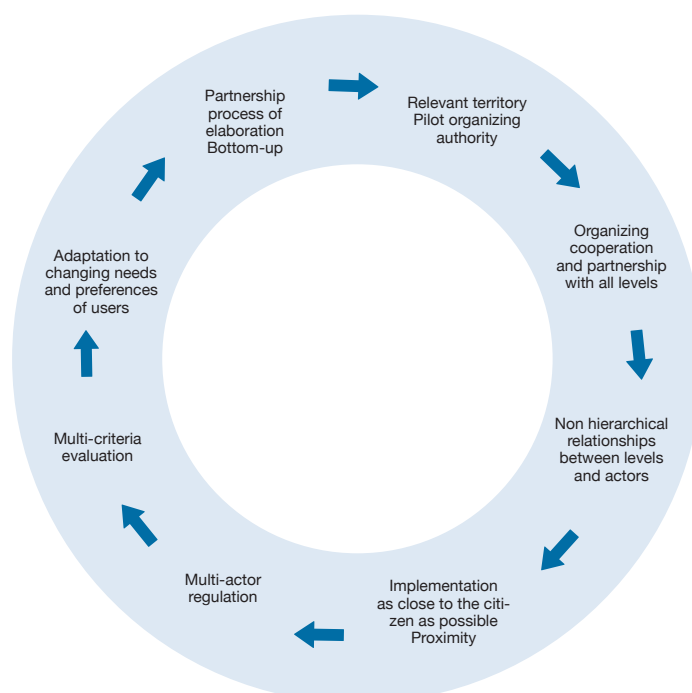
The definition, organization, financing, regulation and governance of basic public services in Europe rest on the relationships between three structural trends:

- a progressive process of Europeanization consisting of both EU integration and common references promoted by the Council of Europe;
- the importance of national histories, institutions and traditions, which continue to generate real economic, social, cultural and political diversity;
- the specific approaches of each sector.

The situation in Europe is not uniform; it is inextricably defined by unity and diversity, convergence and singularity, and evolving interactions between these three structural trends. These characteristics have led to the gradual inclusion of the concept of “multi-level governance” in European debates. The realities of local public services cannot only be dealt with in traditional national and local frameworks.

The particular nature of local public services in Europe allows us to draw various conclusions about the realities and future of their governance.

**Figure 5.7 The partnership governance of local basic public services in Europe**



We understand governance of local basic services as being neither linear nor hierarchical, but rather circular and based on partnership.

It involves combining:

- organizing the systematic and regular expression of needs, and using them to define service objectives and tasks through a participative, “bottom-up” process;
- defining the optimal geographical areas and organizing authorities responsible for “driving” the service governance process on a case by case basis;
- organizing cooperation and partnerships between the organizing authority with all other levels and actors (stakeholders);

- implementing non-hierarchical cooperation relationships between all levels and with all sectors;
- locating service operations as close as possible to users, according to the principle of proximity;
- regulation and control based on the participation of all stakeholders;
- the development of multiple criteria and multi-actor evaluation processes;
- adaptation to evolving user needs and preferences.

This process is circular and continuous (see Figure 5.7).

## RECOMMENDATIONS



**There is a need to clarify powers and responsibilities by taking into account sectoral specificities, as well as national histories, traditions and institutions.**

Therefore, the governance of local public services in Europe should:

### ***Combine unity and diversity***

‘Tailor-made’ proposals, adapted to the specificities and challenges of each sector and locality, are far preferable to trying to define and impose a single model of organization and management of all basic public services across Europe.

For every local public service, governance involves taking into account the specificities of each area and organizing the expression of the evolving needs of citizens and users (individuals, professionals, and communities). It is only on such a case-by-case basis that the most appropriate geographical coverage and organizing authority can be defined. However, this cannot be the exclusive responsibility of local governments. In all sectors, in each local area, institutional levels should cooperate to build horizontal relationships, share knowledge, draw on synergies, and develop a holistic approach.

This involves rejecting “top-down” approaches, as well as hierarchical relationships between levels of government. The aim should be to combine unity and diversity, develop cooperation and partnerships, and to define some common approaches, while allowing flexibility and diversity in implementation. National, regional and local public authorities should enjoy “large discretionary power” to define, organise and finance basic public services.

### ***Clarify the distribution of competences and responsibilities***

In most European countries and sectors responsibilities and powers are unstable. Transformations and innovations are taking place; as the economic, social and environ-

mental crisis generates difficulties in funding, leading governments to look for new ways to make their services more rational and efficient.

However, there is a need to clarify powers and responsibilities by taking into account sectoral specificities, as well as national histories, traditions and institutions. Current transformations and governance innovations should allow a mapping of tasks and responsibilities, which should be evolving, rather than absolute, according to technological change and user preferences.

### ***Establish simple, operational and adaptable, common rules***

The existence of some common rules reflecting the main principles and common values of European countries is appropriate. However, these rules should be guided by the subsidiarity principle, under which decisions are taken at European level only if this is more effective than taking them at a lower level of government. Europe cannot be considered uniform, given the great variety of contexts, needs and challenges in this part of the world.

### ***Support diversity***

For all services that remain under the “wide discretion of national, regional and local authorities” (Protocol 26 of the Lisbon Treaty), local government associations in Europe require that European institutions not only respect sectoral diversity and the diversity of local realities, but also encourage innovation and experimentation, and develop exchanges of good practices and benchmarking.

### ***Articulate economic, social, territorial and environmental dimensions***

Basic public services play an essential role in guaranteeing the fundamental rights of each person and in promoting social, territorial and economic cohesion. They should fully take account of new environmental and sustainable development challenges. In Europe, the largest part of carbon dioxide emissions is generated in cities, particularly by transport and public services. Therefore, public services have an essential role to play in implementing a balanced development strategy.

### ***Improve evaluation***

Evaluation could increase the efficiency of basic public services and allow them to better meet citizens' needs. Evaluation may focus on the predefined objectives of the service or on its performance. This does not imply the creation of new top-down constraints for local public authorities, or comparisons between countries, operators and public authorities. Instead, it should foster exchanges of innovative experiences with an open flow of information about innovation, successes and failures. Evaluation should be a tool for the adaptation,

evolution and modernization of local public services.

### ***Implement all the provisions of the EU treaties, in particular Protocol 26***

The Lisbon Treaty reinforces the powers and responsibilities of local governments. The new provisions of the EU treaties should be implemented, in particular those on services of general interest, and most especially Protocol 26, which states that non-economic services of general interest are not bound by European competition law or the internal market. According to Protocol 26, services of general economic interest should take into account the diversity that may result from different geographical, social or cultural situations, as well as the values of service quality, safety and affordability, equal treatment and the promotion of universal access and user rights.

### ***Facilitative European governance***

In the field of basic public services, European governance should be facilitative and not impose uniformity. The objective should be to favour the co-construction of each service by combining stakeholders and levels, unity and diversity.



**Evaluation should be a tool for the adaptation, evolution and modernization of local public services.**









# VI. LATIN AMERICA



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Photo: Terrachillan

## 6.1 Introduction

In the past decade, the economy of Latin America has grown at a faster rate than the world average; per capita GDP grew by 23% and the region's export capacity increased. The international financial and economic crisis has had less impact here than in other regions of the world. These economic results, along with redistributive policies in several countries, have led to a relative decline in poverty in the region. However, major economic and social inequalities still exist: there are 180 million people living in poverty and 72 million in extreme poverty – that is, 33% and 13% of the total population, respectively.<sup>1</sup>

In terms of demographics, birth rates have fallen while life expectancy has risen, leading to a greater number of people of working age. In order to take advantage of this development, the region will need to significantly increase and diversify production and expand employment over the coming years, while also meeting the increased demands for housing and services from a predominantly young population.<sup>2</sup>

Although Latin America is one of the most urbanized continents (80% of the population lives in cities) and it is thought that the most acute phase of

<sup>1</sup> ECLAC (2012).

<sup>2</sup> UN-HABITAT (2012).



**Latin American cities, especially its metropolises, are still undergoing intense expansion that is very difficult to manage.**

<sup>3</sup> Carrión and Nunez-Vega (2006); Peña et al (2010).

<sup>4</sup> The informants were Octavio Acosta, Francisco Alburquerque, Fernando Álvarez de Celis, Sergio Arredondo, Michel Azcuenta, Carmen Chauca, Serana Coehlo, Mayela Cubillos, Daniel Cravacuore, Roberto Di Meglio, Marcos Dini, Leopoldo Font, Hugo Fruhling, Samuel Garrido, Joao Ricardo Guimaraes, Héctor Latapiat, Claudio Maggi, Martha Rocío Mendoza, Hugo Morán, Iván Moscoso, Hugo Navarro, Luiz Antonio Pacheco, Cuauhtémoc Paz, Humberto Peña, Margarita Pérez, Sergio Francisco Piola, María del Carmen Prado, Gonzalo Rivas, Olman Villarroel and Eugene Zapata. The newspapers reviewed, in August and September 2012, were El Clarín of Buenos Aires (Argentina), El Diario de La Paz (Bolivia), Folha de São Paulo (Brasil), El Mercurio de Santiago (Chile), El Tiempo de Bogotá (Colombia), El Heraldo de San José (Costa Rica), El Comercio de Quito (Ecuador), La Jornada de Ciudad de México (Mexico), El Comercio de Lima (Peru), Listín Diario de Santo Domingo (Dominican Republic) y La Prensa Gráfica de San Salvador (El Salvador).

<sup>5</sup> Galilea, Letelier and Ross (2011).

urbanization is behind it. Latin American cities, especially metropolises, are still undergoing intense expansion that is very difficult to manage; it is estimated that urban areas will gain a further 90 million inhabitants by 2020. Cities reflect the social heterogeneity that characterizes the region. The urban poor and very poor make up 27.6% and 8.3% of the population, respectively, a reality manifested in significant social phenomena and spatial segregation. About 30% of the urban population of Latin America lives in slums. Although this proportion is less than in other regions, such as Africa or India, the number of city-dwellers affected – 138 million – shows the extent of the challenge. It is expected that this figure could rise to 164 million by 2020.

Two simultaneous worlds coexist in Latin American cities, reflected in a social situation characterized by vulnerability and risk, along with growing public insecurity.<sup>3</sup> Marginalized neighbourhoods and informal settlements are juxtaposed with exclusive residential areas and gated communities. This has significant implications for the demand and governance of basic services, for which there are stark variations in access and quality.

As shown in the Gold I and II Reports on Decentralization, published in 2008 and 2010, the processes of democratization that began in the 1980s were accompanied by significant progress in decentralization. Gradually, local governments have been gaining greater institutional powers. Emerging alongside them are citizens who have become better informed and increasingly demanding when it comes to quality management and rights access (decentralization

and participation). This implies greater challenges and commitments for local governments, which are the first point of contact for the demands of citizens.

Nevertheless, a strong centralist tradition persists throughout the continent that has had an impact on the progress of decentralization. Latin America must further deepen local democracy, giving local governments greater management capacity to enable them to promote local development and contribute actively to national and regional policy. Even in the midst of severe institutional and financial difficulties there are important examples of local government strength presented in this report.

This report analyses the management and delivery of basic services at the local level in eleven countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, Peru and Dominican Republic, drawing on the available literature and on a UCLG survey. Questionnaires were sent to local government authorities and completed by 238 mayors, councillors and executive LGOs from 19 countries. There were also interviews with qualified informants. The main newspapers were also reviewed for articles about basic services.<sup>4</sup> With the support of FOMIN-BID, a review of examples of innovations in the management and administration of basic local services was also compiled. In addition to the four basic services analysed in all regions (water supply, sanitation, solid waste collection, public transport), this chapter also includes a brief discussion of public security. While this is not a basic service, it is a significant issue for people across the region.<sup>5</sup>



A black and white photograph showing a close-up of a hand cupping a stream of water flowing from a natural rock spout. The water is captured in mid-air, creating a dynamic, splashing effect. The background shows the textured surface of the rock and some foliage.

## 6.2 Institutional and regulatory frameworks of basic service provision

Despite the strong centralism that characterizes Latin American states, decentralization over the past three decades has transformed the institutional relationship between central governments and sub-national levels of governments (states, provinces, regions or *departamentos*, and municipalities). The direct election of local authorities is widespread and, although there are still serious disparities and contrasts between countries, local governments have gradually acquired greater responsibility in the provision of services, as well as financial and professional capabilities.

During the 1980s, under the influence of the policies of structural adjustment, the concession or privatization of local services became the norm in many countries. In Argentina, for example, concessions were granted for the provision of water, sanitation and energy to the Buenos Aires metropolitan area and the provinces of the interior. Chile privatized the basic services of water, sanitation, electricity, gas and telecommunications. In Bolivia and Ecuador the management of drinking water and the sewers of the main cities, La Paz, Cochabamba, Guayaquil, has been “capitalized”, leased or delegated. Nevertheless, since





**The legislation in most countries allocates the responsibility for basic services to local governments.**

the economic crisis in the 2000s, some services have been brought back under municipal or national management.

Studies have shown that the role of regional (state) and local governments, as well as that of the management bodies running local basic services, has been consolidated in recent years, even in the fields of education and primary health care.<sup>6</sup> However, there is a need for greater investment to expand coverage and improve quality, more efficient coordination between levels of government and private operators, and the improvement of oversight and community participation.

### **The distribution of responsibilities**

In general terms, the legislation in most countries allocates the responsibility for basic services to local governments, although these services may be provided by various public and/or private operators, at central or local level, and through a range of institutional and contractual arrangements. At the same time, it is generally recognized that these services should follow a set of principles – universal, continuous and high-quality access to basic services – and that these principles require complete, stable regulatory frameworks, ensuring an appropriate balance between providers, beneficiaries and public bodies (central and local).

Latin American municipalities are generally responsible for the following public services: drinking water, drainage and sewers, street cleaning, the collection and treatment of household waste, street lighting, planning, green spaces, the promotion of sport, markets and abattoirs, traffic, public and road safety, cemeteries, public events and culture. In many countries, responsibilities for managing primary healthcare and primary and secondary education and even social policies for the poor have also been transferred to intermediate and local levels (e.g. the Bolsa familia in Brazil).<sup>7</sup>

As in other regions of the world, Latin American municipalities often share the running of these public services with intermediate and national levels of government. In such cases, each level of government manages particular parts of the services, but problems of coordination often arise and there are ambiguities with respect to the responsibilities of each level. Furthermore, local governments are taking on powers in new areas, for example, in environmental management, and having to adapt to climate change, which has a direct impact on basic services (flooding or droughts, greater temperature variations or changes of rainfall cycles that affect the sources of drinking water, etc.) and, as discussed below, in public security which, despite not being a local competence, is a top priority for citizens.

Table 6.1 shows the heterogeneous nature of the status of the basic services covered in this report, including the different levels of involvement of national, regional and local public bodies, and the growing incorporation of private sector operators.

However, this table necessarily simplifies a complex reality. The different national situations are analysed in greater detail in the section below on management models and regulatory frameworks.

In Brazil, for example, there is an overlapping of powers between the different levels of government in some regions and certain services are weak or absent in others (in the North East). While the responsibility for health and education is transferred to intermediate governments and municipalities with greater capacities, small municipalities relinquish part of their responsibilities – like road construction and maintenance – to intermediate or federal level. Moreover, the distribution of powers is usually adapted to the logic of each sector (with water, sanitation and education dealt with at the state level, and health, housing and sanitation funded by the federal government).

<sup>6</sup> Galilea, Letelier and Ross (2011).

<sup>7</sup> UCLG (2008).

**Table 6.1 Main responsibilities in the management of basic services in Latin America**

| COUNTRY            | WATER AND SANITATION (WS)          | MUNICIPAL SOLID WASTE (MSW) | URBAN PUBLIC TRANSPORT (UPT) | LOCAL PUBLIC SECURITY (LPS) |
|--------------------|------------------------------------|-----------------------------|------------------------------|-----------------------------|
| Argentina          | RG (PS)                            | LG (PS)                     | MG (PS)                      | CG and RG                   |
| Bolivia            | LG (PC)                            | LG                          | RG (PC)                      | CG                          |
| Brazil             | LG and RG (PC, PS)                 | LG and RG                   | RG (PC, PS)                  | CG and RG                   |
| Chile              | CG (PS)                            | LG (PS)                     | CG (PS)                      | CG                          |
| Colombia           | LG (PC, PS)                        | LG (PS)                     | MG and LG                    | CG                          |
| Costa Rica         | CG (PC) and LG in some rural areas | LG and CG                   | CG and LG (PC, PS)           | CG and LG                   |
| Ecuador            | LG (PC)                            | LG                          | LG and CG (PC, PS)           | CG                          |
| El Salvador        | CG (LG exceptionally)              | LG                          | CG and LG (PS)               | CG                          |
| Guatemala          | LG and CG (PS)                     | LG                          | LG and CG (PS)               | CG                          |
| Honduras           | CG (LG in rural areas)             | LG                          | CG                           | CG                          |
| Mexico             | LG and RG (PC, PS)                 | LG and RG                   | MG and RG                    | CG, RG and LG               |
| Paraguay           | CG                                 | LG                          | CG (PS)                      | CG                          |
| Panama             | CG                                 | CG and LG                   | CG (PS)                      | CG                          |
| Peru               | LG and RG (PC, PS)                 | LG                          | CG, RG and PS                | CG                          |
| Dominican Republic | CG (PC, PS)                        | LG                          | CG and MG (PS)               | CG                          |
| Uruguay            | CG                                 | LG                          | CG and MG                    | CG                          |
| Venezuela          | CG and RG                          | LG                          | CG (PS)                      | CG                          |

CG: Central Government; PS: Private Sector (companies or concessions) RG: Regional or State Government, PC: Public Company; LG: Local Government (Municipality); NGO: Non-Governmental Organizations, MG: Metropolitan Government, CO: Community Organizations. In brackets are the main operators if they are PC or PS. Compiled by the authors. See Annex 6 of Gold III.



**Local governments are taking on powers in new areas, for example, in environmental management.**

In Colombia, the law establishes that municipalities have the responsibility to “ensure that the domiciliary services of water supply and drainage are provided to their inhabitants, efficiently ... by public service companies” except in some specific cases in which the municipalities can provide these services directly (Art. 5, Law 42, 1994).

In Mexico, although municipalities are responsible for basic services, state, and sometimes federal, institutions regularly provide local services (except for solid waste, which is dealt with by the municipalities). In

Central America – except for the capital and some intermediate cities – the majority of local governments have difficulties in managing basic services and, in many cases, do so in precarious conditions. However, the most complex activities, which require the highest levels of investment, for example water supply and sewers, are provided at national level in most cases. In Paraguay, municipalities provide a limited number of basic services, with the central government providing the majority, particularly drinking water and public transport. In Uruguay, it is the intermediate government bodies



**The growing complexity in the distribution of powers and the incorporation of new stakeholders highlights the need to clarify and regularly review the legal frameworks.**

(*departamentos*) that take on the majority of services, including, increasingly, social services (primary healthcare), environmental protection and cultural development. However, water is provided by a national utility, the *Obras Sanitarias del Estado*, and waste collection has been taken on by the recently created municipalities.

The growing complexity in the distribution of powers and the incorporation of new stakeholders highlights the need to clarify and regularly review the legal frameworks. Most of the local authorities that took part in the survey conducted for this report (answered by 238 elected officials and experts from 19 countries) identified weaknesses and inadequacies of regulatory frameworks as a critical issue.

### Management models and regulatory frameworks

In recent decades, there have been new laws or regulations in most countries of the region to improve water management and sanitation (see Table 6.3 below), as well as laws concerning solid waste (in at least seven countries in the region), and the creation of regulatory bodies.

Beyond the issue of legislation, one of the problems encountered in many countries is the need to improve the implementation of the law by clarifying the distribution of responsibilities between local, regional and national levels of government. For example, in the water sector, a recent OECD study points to important problems of coordination in policymaking, the management of finance, and the improvement of technical, information and control capabilities.<sup>8</sup> In the solid waste sector, although provision is a local responsibility, policy-making, planning and the allocation of budgets are still national responsibilities, or regional responsibilities in the case of federal countries. It is therefore necessary to establish mechanisms to clarify the role of each level of

government and type of collaboration, taking care to respect and reinforce the autonomy of local government. One example of equitable management of the distribution of powers is the *Consejo Nacional de Competencias* of Ecuador, on which all levels of government are represented, and which regulates the procedures of the transfer of powers and analyses the necessary costs.<sup>9</sup>

One of the achievements of public service policy in the 1990s was the separation of policymaking, regulation and control and service provision roles. Progress must also be made in improving the establishment and, above all, the introduction of rules regarding the quality and efficiency of the provision of services. Given the asymmetry between consumers and service providers (usually a monopolies or quasi-monopolies), it is important for regulators to ensure the protection of public assets and consumer rights. The establishment of specialized regulatory bodies to oversee basic services is a significant step forward (in the water sector, there are 28 national and intermediary level regulatory bodies and 21 municipal bodies, covering 23% of the population, as well as 17 multi-sector bodies). For example, the *Superintendencia Nacional de Servicios de Saneamiento* (SU-NASS) in Peru regulates 50 sanitation service providers in the country, establishing tariff mechanisms and reviewing the tariffs every five years; it also supervises the quality of sanitation and customer service. In Colombia, the regulation of the tariff regime is the responsibility of the Water Regulation Commission (*Comisión Reguladora del Agua*, CRA), which regulates the processes of establishing and reviewing tariffs and supervises their application by service operators, which ultimately set the tariffs. In turn, the *Superintendencia de Servicios Públicos Domiciliarios* (SSPD) oversees the quality of the service, controls the sustainability of service operators and manages a Single Public Service Information System (*Sistema Único*

<sup>8</sup> The 2012 OECD report (Akhmouch 2012) makes a similar observation in relation to the governance of the water sector, where it identifies three models: 1) with multiple actors at central government level and few actors at local level which poses problems of coordination between ministries and between levels of government (e.g.: Chile, Costa Rica, El Salvador); 2) multiple actors at central and local level, with vertical (between levels) and horizontal (inside each level) problems of coordination (e.g.: Brazil, Mexico, Peru); 3) few actors at central government level and a host of actors at sub-national level (e.g.: Argentina, Mexico, Panama), which requires greater coordination between sub-national actors and levels of government.

<sup>9</sup> <http://www.competencias.gob.ec/>

*de Información*, SUI), which centralizes the information handed over by service operators. In Mexico, where regulation at local level is limited, CONAGUA centrally gathers, monitors and publishes data on service performance, tariffs, access to water and hydraulic works. In Central America, the experiences with regulatory bodies are more recent and limited to a few countries (Costa Rica, Honduras, Nicaragua, and Panama)<sup>10</sup> Guayaquil and some Brazilian cities have local regulatory bodies. While the greater professional and technical competence of these bodies provides protection for municipalities and consumers, and accountability to citizens, they should also work to support local governments.

In terms of the regulatory aspects of the waste sector, the health and environmental legal framework is overlapping and unclear. Moreover, there are frequent difficulties for the environmental waste management bodies in the fulfilment of their functions. The situation is particularly worrying due to the absence of suitable economic and financial laws in the majority of countries, which would make it possible to regulate rates and tariffs in accordance with the quality of the service. The most complete example of the economic-financial regulation of solid waste management services is in Colombia, where the rules clearly lay out

the methodology for calculating tariffs, and there are spending limits to guarantee the financial sustainability of the service.<sup>11</sup>

The survey of local authorities carried out for this report also confirms the need to improve the legal framework in which local governments operate in relation to the tenders, contracts and the oversight of the services operated by the private sector under the control of local government or other public institutions. Overall, the legal framework and oversight is considered insufficient.

In general, when it comes to involving the private sector in long-term concessions, it is advisable to put in place specific regulatory frameworks to cover the resolution of conflicts, the settlement and modification of contracts, and even the revocation of concessions under certain circumstances. The countries with the best services are those that were able to establish regulatory frameworks prior to announcing competitive tenders, as was the case in Chile.

The insufficient clarity of regulatory frameworks discourages business investment (domestic and foreign). The same is often argued in relation to the necessary stability of the rules of the game by the state, as has been reiterated by the IDB and the World Bank.<sup>12</sup>



**The establishment of specialized regulatory bodies to oversee basic services is a significant step forward.**

<sup>10</sup> IMTA and OECD (2008) p. 14

<sup>11</sup> Martínez et al (2011).

<sup>12</sup> On the forms of public-private association and its variations, see Passalacqua (2003) and Infra-scope (2013)



Photo: Caffè Vita

## 6.3

### Access to basic services

In recent decades, there have been significant improvements in both the coverage and quality of water, sanitation, urban transport and solid waste management. However, there are still hurdles to be overcome if Latin America is to reach the standards found in the more economically developed regions of the world, especially for the most deprived and isolated rural sectors of society. Box 6.1 describes the challenges in peripheral urban areas.

#### Access to water supply and sanitation

In Latin America, the coverage of drinking water and sanitation already meets, or is predicted to meet, the Millennium Development Goals.<sup>13</sup> There has been a steady increase in coverage over recent years: between 1960 and 1970 the water supply was extended; between 1980 and 1990<sup>14</sup> the sewerage system was extended; and since 2000 there have been substantial improvements in water supply treatment.<sup>15</sup> Table 6.2 shows the evolution of drinking water and sanitation coverage from 1960 to 2010. The great leap forward in service provision over the first two decades of this period is clear to see.





### Box 6.1 Access to basic services in peripheral urban areas

Currently, areas of urban sprawl in Latin America continue to grow, mainly due to internal population movement within urban area, rather than migration to them. In these new urban outskirts, the formation of traditional irregular settlements no longer constitutes the only driving force behind development; in several countries in the region new urban forms are developing as a result of the construction of mass social housing (first in Chile and later in Mexico, Brazil, Colombia, and Venezuela, among other countries). This persistent peripheral urban growth, both formal and informal in nature, has notable implications for the provision of basic services.

The provision of basic services in these new urban peripheries is being added to the need to confront the “urban deficit” already accumulated over the recent decades in informal settlements (where 30% of the urban population of Latin America still lives). However, the shortcomings of these neighbourhoods are considered less acute than those of their equivalents in other developing regions, largely because the phase of rapid growth of these shantytowns has ended, while improvements in provision have continued. It is estimated that access to electricity has become widespread in the cities of Latin America, with a rate of urban coverage of over 95% in most countries (except for Guatemala, Peru and El Salvador). The situation is more or less the same with drinking water. However, these data have to be taken with caution, as the quality and regularity of services are very often still deficient. A lack of sanitation, overcrowded housing, and the poor quality of building materials are other problems in these non-integrated neighbourhoods, as well as a lack of facilities and the difficulties in accessing public transport.

At the same time, many Latin American cities are facing the need to “regenerate” largely uninhabited and dilapidated central urban areas, which have obsolete infrastructure (e.g., in Santiago and Mexico City). In other words, an effort is being made to “re-densify”, “repopulate” and “regenerate” both historic city centres and other central urban areas.

Consequently, urban local governments are still dealing with significant demands for the expansion of infrastructure and services.



**There have been significant improvements in both the coverage and quality of water, sanitation, urban transport and solid waste management.**

**Table 6.2 Water supply, sanitation and septic tanks in Latin America and the Caribbean**

| Year | Drinking water supply (domestic connection and improved access) |    | Sewerage system         |    | Septic tanks            |    |
|------|---|----|-------------------------|----|-------------------------|----|
|      | Millions of inhabitants   | %  | Millions of inhabitants | %  | Millions of inhabitants | %  |
| 1960 | 69  | 33 | 29                      | 14 | NA                      | NA |
| 1971 | 152   | 53 | 59                      | 21 | NA                      | NA |
| 1980 | 236   | 70 | 95                      | 28 | 105                     | 31 |
| 1990 | 341   | 80 | 168                     | 39 | 116                     | 27 |
| 2000 | 420   | 85 | 241                     | 49 | 152                     | 31 |
| 2010 | 503   | 87 | 330                     | 57 | 210                     | 37 |

Source: Table from: Jouravlev (2004) p. 8 and ECLAC (2012). NA = data unavailable

<sup>13</sup> Latin American countries will have more success in meeting these goals than those in Africa. Coverage levels in Latin America are now close to European levels.

<sup>14</sup> The eighties was the International Decade for Clean Drinking Water, established by the UN in 1981.

<sup>15</sup> Jouravlev (2004).

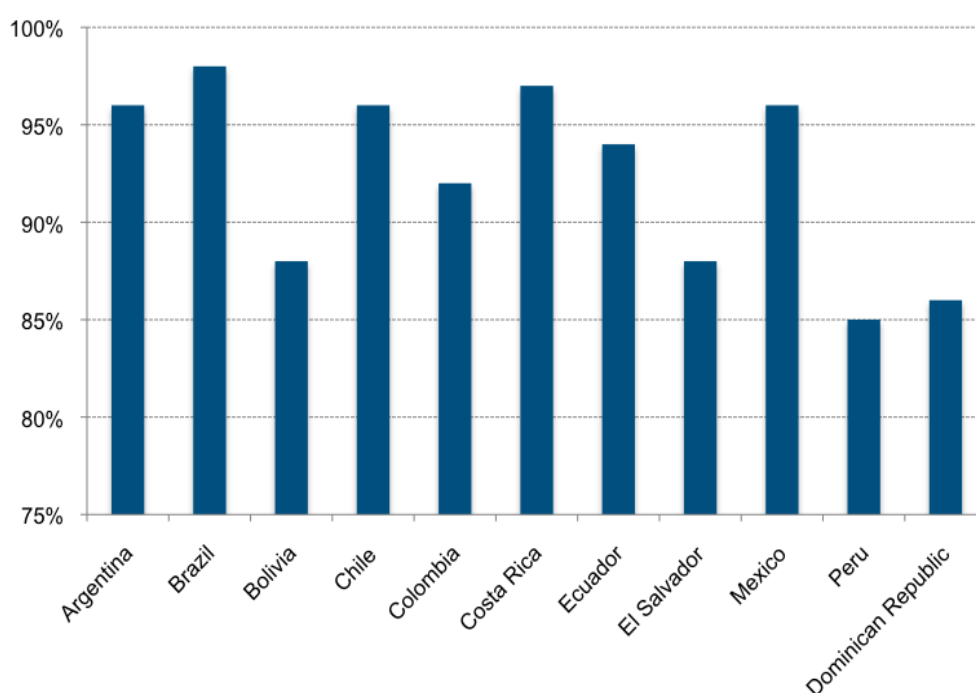
Nevertheless, of this 90% of drinking water coverage in Latin America, no less than 25% is made up of poor quality, irregular or illegal sources (the only supplies available to many living in informal settlements), while – as the table shows – over 37% have only limited access to sanitation (septic tanks, latrines etc.). Since 2000, the expansion of access to drinking water has slowed. The same is true of sanitation services, with expansions and improvements in services slowing from a growth rate of 2.7% in the nineties, to just 1.6% in the past few years.<sup>16</sup> This deficit is particularly notable in the interior and in disadvantaged urban areas and communities. It is particularly difficult to extend coverage to these areas due to their distance from formal water supply and sewerage systems.<sup>17</sup>

Service quality is patchy in many countries. While Chile, Brazil and Argentina show positive indicators for water supply continuity, results are poor in Bolivia, Peru and Honduras. There are also differences between the interior and coast of each country, most starkly in Brazil and Mexico, where regional disparities are particularly marked.<sup>18</sup>

The following graphs (Figures 6.1 and 6.2) show aggregate levels, by country, of the current state of 'improved' coverage<sup>19</sup> of drinking water and sanitation:

The drinking water and sanitation coverage situation is particularly complex in Bolivia. There, improved drinking water coverage reached 88% in 2010, having risen by 18% over the previous decade, while improved sanitation reached a mere 27%

**Figure 6.1 Coverage for improved drinking water supply (selected Latin American countries)**



<sup>16</sup> Ducci and Soulier Faure (2010).

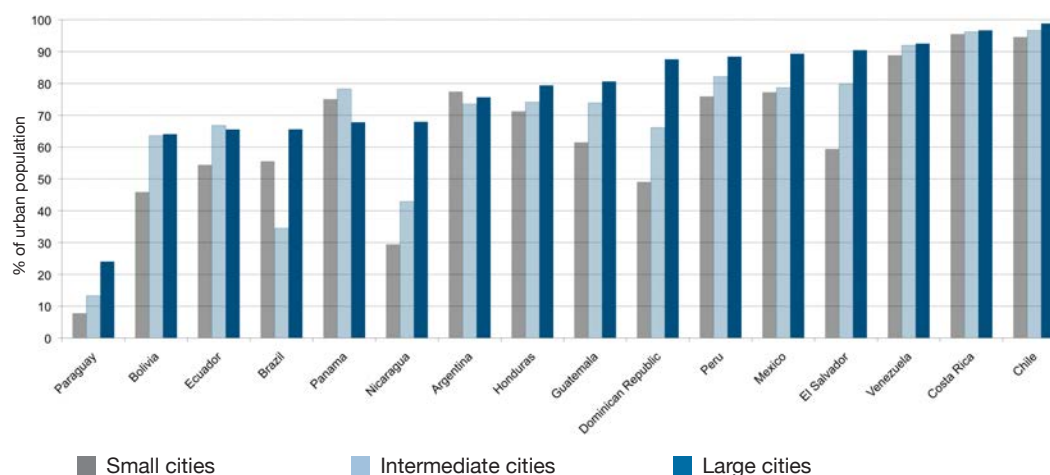
<sup>17</sup> Ibid

<sup>18</sup> IMTA and OECD (2010).

<sup>19</sup> The Millennium Development Goals of the United Nations define an improved drinking water source as one supplied via pipes protected from outside contamination. In sanitation an improved source is defined as a facility that hygienically separates human excreta from human contact.

Source: created based on information from WHO / UNICEF (2012).

**Figure 6.2 Coverage for improved sanitation (selected Latin American Countries)**



Source: based on data from DEPUALC. Consulted June 2011 (last available census data)



**Brazil is the country with the largest internal disparities in terms of sanitation coverage.**

of the population. Furthermore, the rise in improved drinking water coverage was thanks to improvements in cities, with the average coverage in rural areas reaching an average of just 71%, and improved sanitation in these areas reaching just 10% of the population. The negative impact of these service levels is reflected in the poor health outcomes in these regions.

Even in Argentina, where drinking water supplies reach 98% of the population, and sanitation 90%, there are still important differences between urban and rural coverage. Large cities enjoy the best coverage (the city of Buenos Aires has 99% coverage), while the worst coverage is found in isolated areas Misiones, and Santiago del Estero. The disparity between services is also significant – for example, there are areas where drinking water supply reaches 90% of the population, and sanitation reaches just 30%. If only domestic connections are included, coverage falls to 80% for drinking water, and 44% for sanitation. Service quality (disinfection, chlorination etc.) and continuity are good at the national

level: over 90% of the supply complies with OMS rules and standards; the 10% which does not is concentrated in disadvantaged urban neighbourhoods and rural areas.<sup>20</sup> Brazil is the country with the largest internal disparities in terms of sanitation coverage: only 44% of people in rural settlements have access to sanitation. Results are more mixed for Central American countries. In Costa Rica, drinking water coverage reached 97% in 2010, with rural coverage 9% lower than the 100% coverage of urban areas.<sup>21</sup> The Costa Rican Water and Sanitation Institute (2005) has identified serious problems with water distribution and rationing. El Salvador has 88% coverage nationally, with an urban-rural gap of 18 percentage points. Dominican Republic has national coverage of 86% with an urban-rural difference of 3 points; urban areas and the poorest rural areas suffer from deficient sanitation services. The situation is particularly critical in Haiti.

In Colombia, improved drinking water access is at 92% nationally, and 72% and 99% in rural and urban areas respectively. Over

<sup>20</sup> Calcagno, Mendiburo and Gaviño (2000).

<sup>21</sup> WHO / UNICEF (2012).

70% of companies meet the quality standards for water and sanitation services,<sup>22</sup> although less than 50% of drinking water is adequately treated outside of large cities. Some 77% of the population has access to improved sanitation, but this falls to just 63% in rural areas. Mexico has evenly distributed coverage, with a national rate of 92%, never falling below 92% in rural areas. However, 55% of families with access to piped water only receive an intermittent service.<sup>23</sup>

In Peru, 85% of the population has access to drinking water supplies, but there is a large difference between urban (90%) and rural (65%) areas. Treatment of the drinking water supply is limited (29%). In Lima there is a monitoring and control system to check water quality, the Drinking Water and Sewerage Service in Lima (Sedepal), ensuring that it meets minimum quality standards. There has been an interesting analysis of the particular situation of access, quality and environmental sustainability in Paraguay<sup>24</sup> and Guatemala.<sup>25</sup>

Across the region, particular attention has been paid to improvements in coverage for disadvantaged urban neighbourhoods, and rural drinking water systems (often not connected to the national network) have also been designed. Trust in drinking water has grown in all of the countries in the region.<sup>26</sup> Improvements in water purification and quality have resulted in improvements in health indicators for gastrointestinal diseases. However, deficiencies in coverage and quality are still worth paying attention to, given the increasing costs of ensuring universal access, minimum quality standards, and adequate service provision.

The growing impact of climate change is also posing new challenges to the sector. Cities that are supplied by mountain sources of drinking water (La Paz, Arequipa, Quito and Bogota) recorded significant drops in their glacial water supplies, requiring them to look for new water sources and to

establish alternative seasonal storage systems and river diversions.

## Solid waste management provision

The collection of solid waste has been extended noticeably over the last decade, with coverage expanding at a faster rate than population growth. Central and local governments are increasingly aware of the need to plan and establish long-term policies for the sector, as exemplified by the publication of national waste management plans and the adoption of national waste laws in a number of countries in the region. The implementation of national or regional plans to close informal dumps and to construct sanitary inter-municipal landfills is also encouraging. However, a 2010 evaluation of the sector reported that just 19.8% of municipalities in the region have a waste management strategy.<sup>27</sup>

According to a 2005 report by the Pan American Health Organization (PAHO), just a few decades ago the most basic waste collection services in Latin America barely reached more than 50% of the population. In 2010, this figure reached 93.4% of the population, though quality and technologies vary widely. In Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Nicaragua, Dominican Republic, Uruguay and Venezuela, solid waste collections reach over 90% of the population, while in Bolivia, Ecuador, El Salvador, Guatemala, Panama and Peru, coverage stands at around 80%. Despite these strong results, there are still significant gaps in supply, particularly in disadvantaged urban and rural areas.

Street sweeping coverage has also improved in urban slums, reaching 82.3%. Around 91% of all coverage is manual, and the remaining 9% is mechanical.<sup>28</sup> Finally, it is notable that the generation of urban waste has only risen slightly to 0.93 kg/person/day, despite the large increase in

<sup>22</sup> WHO / UNICEF (2012).

<sup>23</sup> Seguin (2010).

<sup>24</sup> Ramírez B., Héctor, OPACI, "Los servicios básicos a nivel local. El caso de Paraguay", presented at workshop GOLD III, El Salvador, 6 and 7 May 2013.

<sup>25</sup> Asociación Guatemalteca de Alcaldes y Autoridades Indígenas, AGGAI, "El Latinoamericano de gobiernos locales en territorios indígenas", Kychemb'il, Guatemala, Noviembre 2008, Presented at workshop GOLD III, El Salvador 6 and 7 May, 2013.

<sup>26</sup> WHO/UNICEF (2012).

<sup>27</sup> Martinez et al (2011).

<sup>28</sup> Martinez et al (2011).

regional GDP and strong economic growth. The final stage of solid waste disposal is another matter. Current environmental standards define sanitation processing as adequate only if it includes sanitary landfills, which minimize environmental impact and reduce the risk of the spread of disease.<sup>29</sup> Of waste collected in Latin America, only 54.4% is processed in this way, while the remaining 45.3% is disposed of in open dumps. Despite some progress (in 2002 just 22.6% of solid waste was treated), there is still a significant environmental impact and a high risk to public health. The situation is most serious in Bolivia, Ecuador, Peru and Dominican Republic, where more than 65% of all solid waste is disposed of inappropriately. In contrast, Chile and Colombia have set up a network of sanitary landfills which deals with over 80% of all MSW. The examples of the closure of the Bordo Poniente dump in Mexico City and of the Lepanto dump in Santiago are well-

known (see figure 6.3). They demonstrate that adopting firm strategic decisions can qualitatively improve the environmental problems caused by solid waste.

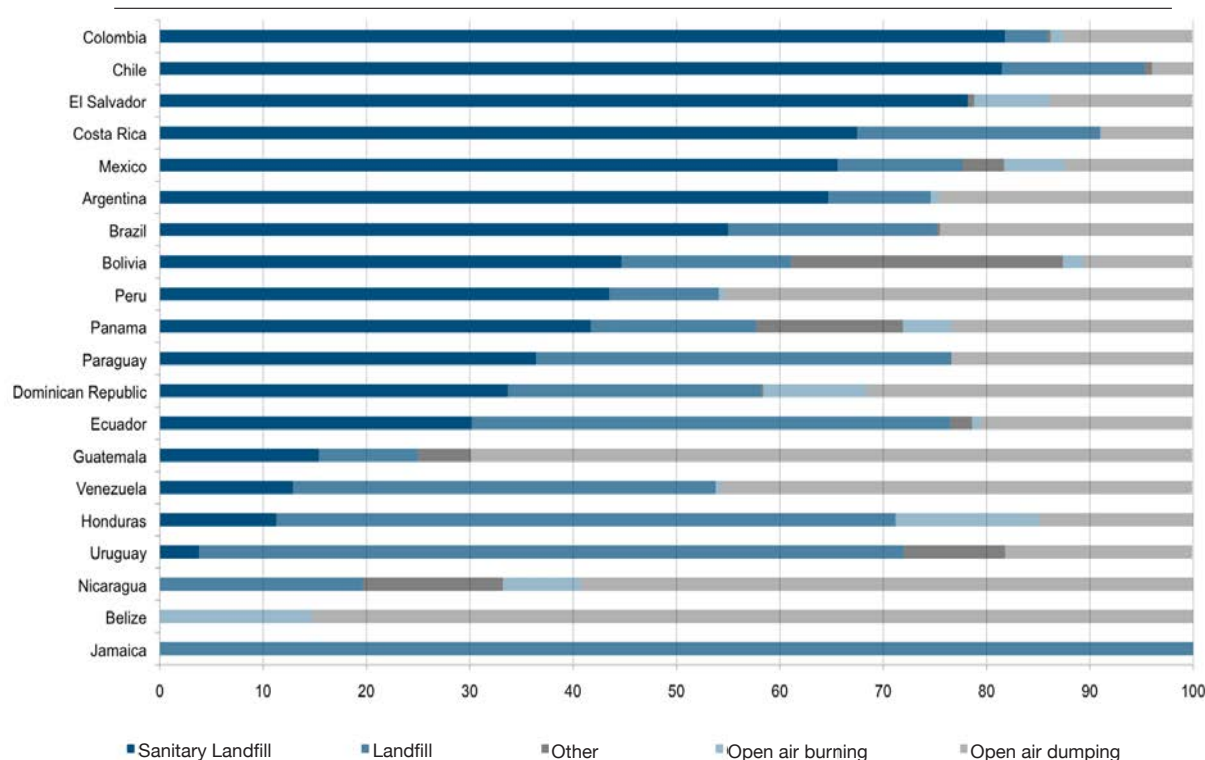
There has been limited yet significant progress in waste sorting and recycling. New national laws have established legal targets for waste reduction and oblige the producers of certain products to collect the waste they produce. However, these laws are not enforced.

While there is hardly any formal recycling in recycling plants, informal recycling is widespread, although the exact quantities recycled are unknown. There are well-known examples in a number of countries, particularly in a number of Brazilian cities, where there have been interesting cases of recycling by poor community groups, which have been helped by national legislation and investment programmes. Examples include: the waste-pickers of Porto Alegre (450 waste-pickers), Sao Paolo (700), Belo



**While there is hardly any formal recycling in recycling plants, informal recycling is widespread.**

**Figure 6.3 Solid waste treatment in Latin America**



Source: Original table based on data provided by PAHO – AIDIS – IDB in October 2011 for a study by UN HABITAT (2012) p. 96.

<sup>29</sup> PAHO (2005).



Horizonte (380) and Londrina (400) (see Box 6.5 below).

Composting, practiced across Latin America, could receive a major boost with the use of carbon funds.<sup>30</sup> Incineration is hardly used in the region, but more efficient thermal treatment technologies which harness the energy in waste might be a valid treatment option in large cities, depending on each particular case.

A notable example of waste management in the region is the 'Trash is Treasure' (*La Basura es un Tesoro*) project by the Association of Municipalities of Nicaragua (AMUNIC), an integrated model of waste treatment.<sup>31</sup> Another interesting example is the case of La Pintana, a commune of 160,000 inhabitants in the southern part of Santiago, Chile. There, 28% of vegetable waste is recovered, 19% of waste is recycled, and bio-diesel is produced from waste products.<sup>32</sup> A complete analysis of waste management in the state of Amazonas has highlighted innovative legislation and a complete programme of selective waste collection and cost reduction that have improved health and innovation in municipal management.<sup>33</sup>

However, the perception of the sector is still negative. Not long ago, the collection and treatment systems in the region were described as "disorganized, unsafe and harmful."<sup>34</sup> The situation in poor metropolitan neighbourhoods is particularly critical. Solid waste pollution, as well as the location of landfills, usually found in slums, increase popular disaffection.<sup>35</sup>

The level of recycling is still low, and the use of waste for energy is rare or totally absent.

More generally, the inefficient economic and technical regulation of the sector fails to realign the information asymmetries between local authorities, the general public and private operators. Further political and legal debate on introducing corporate responsibility for the waste generated by private companies is needed.




## Access to urban transport

The available information on urban transport<sup>36</sup> provision in the region almost exclusively deals with large cities.<sup>37</sup> In a study of 15 metropolitan areas with a total population of 107 million people, by the *Corporación Andina de Fomento (CAF)*, 85% of public transport passenger transport was by wheeled vehicles (230,000 cars) and the remaining 15% by rail. There are some 214 million trips per day. There are also 27 million private vehicles and their numbers have grown at an annual rate of 4 to 8% over the past decade.

As indicated in figure 6.4, mass transit predominates in 9 of the 15 cities and is greater than 50% in Bogotá, Caracas, Mexico City, Lima and Montevideo. Private car transport predominates in Buenos Aires.

In general, there is low mobility, poor mass public transport systems, congestion, air pollution and high levels of traffic accidents (10.8 deaths/1000 inhabitants per year).

### Main modes of transport in large cities

| Private providers  | Public transport  | Private vehicles  |
|--|---|---|
|  |  |  |
| Taxis or combis  | Trains, trams, bus lanes  | Car, motorcycle   |

According to CAF, "In terms of the degree of regulation of urban public transport services, there are two distinct models: that of tight regulation in Brazil and, to a lesser extent, Costa Rica, and that of loose regulation in all other countries. In Brazil, public transport is defined as an "essential public service" in the constitution, and city halls or municipalities are responsible for the regulation and control of these services. In the

<sup>30</sup> Through the Clean Development Mechanism (CDM) which aims to reduce greenhouse gases, countries in Latin America can obtain additional resources for investment projects through the sale of carbon credits called "certified emission reductions" to developed countries, to help them to achieve their emission reduction goals. Latin America has funded 480 projects via this mechanism, of which 124 were for waste management and disposal.

<sup>31</sup> AMUNIC-Nicaragua, [http://www.amunic.org/pp\\_fcm.html](http://www.amunic.org/pp_fcm.html)

<sup>32</sup> Palma (2012).

<sup>33</sup> PLAMSAN, Programa de apoyo a elaboracao dos planos municipais de saneamiento è de gestao integrada de residuos solidos des municipios de Estado de Amazonas, Manaus, 28-07-2011, presented at workshop GOLD III, El Salvador, 6 and 7 May 2013.

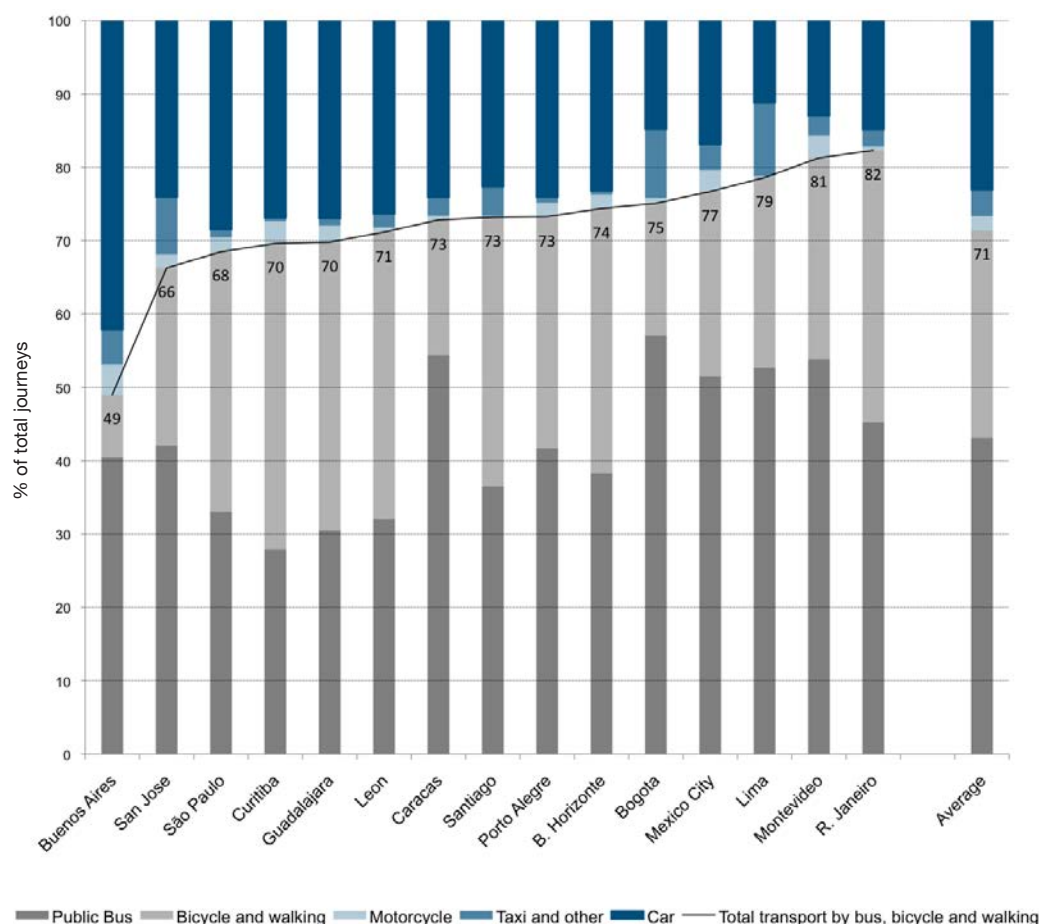
<sup>34</sup> PAHO (2005).

<sup>35</sup> PAHO (2005); Acurio, Rossin, Teixeira and Zepe-da (1997).

<sup>36</sup> Urban and inter-city transport refers to journeys made using both public and private means of transport, either within a city, or crossing the borders of two or more municipalities.

<sup>37</sup> CAF (2011); Menckhoff (2005); ECLAC (2008) and (2010).

**Figure 6.4 Dominant modes of urban transport by country**



**There is low mobility, poor mass public transport systems, congestion, air pollution and high levels of traffic accidents.**

Source: CAF (2011).

other countries of Latin America, there is less control, in, for example, the administration of licenses to drive public transport vehicles, which is spread out between the various authorities responsible for the planning and management of urban transport (between different territorial and / or judicial levels).<sup>38</sup>

Over the past decade, there have been attempts to improve and upgrade mass transport systems. In addition to construction or extension of metro systems (Buenos Aires, Mexico, Panama, Sao Paulo) and the modernization of suburban trains (in Brazilian

cities, Buenos Aires, Santiago) and trams (Buenos Aires), the most important initiatives have been the of preferential bus lanes (Bus Rapid Transit). Although the first experience dates back to the 70s (Curitiba), since they were introduced in Bogotá (2000), these systems have spread to cities such as Buenos Aires, Belo Horizonte, Guatemala, Guayaquil, León, Lima, Mexico City, Porto Alegre, Quito, Rio de Janeiro, Santiago de Chile and Sao Paulo (see Box 6.2). Previously, several cities built urban toll roads (Buenos Aires, Mexico City, Rio de Janeiro, and Santiago). Finally there have been efforts to regulate taxis in Lima and Mexico City.<sup>39</sup>

<sup>38</sup> CAF (2010) p. 310.

<sup>39</sup> Figueroa (2012).



### Box 6.2 Notable examples of urban transport modernization

*The Mass Transport System (Sistema de Transporte Masivo, BTR) in Quito, Ecuador.* It was established as a low cost, high performance, integrated transport system. The city municipality is responsible for the management, regulatory framework and an element of community participation.

*Restructuring Plan for Public Transport in the Metropolitan Region of Belo Horizonte (Plan de Restructuración del Transporte Colectivo de la Región Metropolitana de Belo Horizonte, BHBUS), Brazil.* The city opted for the construction of an integrated urban transport network, made up of buses, underground trains (metro) and an inter-neighbourhood system with direct, circular and peripheral lines.

Sources: Carrigan and Hidalgo (2010); UCLG – IDB-FOMIN (2012).

There are also proposals to create lanes for pedestrians and cyclists in Santiago, Mexico City and Leon.

The most iconic project has been Bogota's *Transmilenio*, which has improved the quality of life of Bogotans. Citizens of the city have not only seen a reduction in waiting and travelling times, but also a great improvement in the state of buses and streets, and in the safety of the service. According to a poll conducted by IPSOS - Napoleón Franco, passengers stated that their journeys were taking *32% less time* to complete.<sup>40</sup> In contrast, the *Transantiago* in Santiago (unlike the Santiago Metro) and Lima's *Sistema Metropolitano* have been strongly criticized. Particularly in Santiago, the

improvised nature of the launch of the surface transport system resulted in a service seen as poor and insufficient by the population, at the cost of a public subsidy of around USD 800 million annually (see Box 6.7).

Despite the efforts made in recent years, innovations have been insufficient, covering only part of demand (with some revenue generating capacity) and have been poorly integrated with traditional transport systems. Daily mobility remains an issue of concern due to the lack of public transport and / or its high cost. Low-income communities located in the city outskirts and more deprived social groups face particularly poor transport provision.

<sup>40</sup> Conducted at the request of the Mayor of Bogota's "Bogotá, ¿Cómo vamos?" evaluation project. IPSOS (2011).



## 6.4 The management and financing of basic services

During the 80s and 90s, many Latin American countries implemented policies deregulating and privatizing the markets for the basic services analysed in this report. The involvement of the private sector aimed to bring significant innovations and investment to basic services, and to provide the efficiency and effectiveness that public utilities had not been able to guarantee. As is clear from the surveys carried out for this report (see part 6.1), local authorities agree that privatization has neither led to a massive influx of resources nor to lower costs for states, and that transparency and information have been insufficient. In 2000, several of these processes have been further damaged by the economic crisis (Argentina) and public protests (Bolivia).

Also worth mentioning is the case of Chile, where many public services were privatized in the nineties, but in a context of the establishment of strict regulatory frameworks, investment programmes and commitments on coverage and quality. The results were positive, with the state playing a contracting and oversight role, as shown in Table 6.3.

However, as discussed below, along with the public management of services





**In most countries of the region, there is legislation, regulations and standards for the different forms of private-public partnership.**

by different local, regional or national bodies, private sector involvement continues to grow. Private sector involvement usually takes the form of public concessions, made by local, state, or central governments. In most countries of the region, there is legislation, regulations and standards for the different forms of private-public partnership, many of which have been established in the last decade.<sup>41</sup> The characteristics of private sector partners vary; they range from large multinational companies (see the example of *Aguas de Barcelona* in Cartagena and Santiago de Chile, above) to local or national providers, including micro-enterprises, non-profit organizations, cooperatives, and small-scale providers closely linked to the voluntary sector. There is also an informal sector that works in specific niches (e.g. waste-pickers in recycling and waste-sorting).

### Water and sanitation management

Over the past decade, there have been institutional reforms to improve water management. The following table summarizes the rules, organization and regulation for the provision of drinking water in Latin American countries.

In Latin America, water is generally provided by the public sector. Around a third of the countries surveyed have direct municipal systems for water supply and sanitation, in the form of a number of local public companies providing services in urban areas (i.e. over 2000 in Mexico, 200 for Ecuador, 50 provincial-level municipal service operators in Peru, and 14 municipally owned or cooperative operators in Bolivia) and many more in rural dominated water management boards (under different legal forms: community associations, cooperatives, etc.). Regional governments also play an important role in providing water services in Argentina, Chile, Brazil, Mexico, and Venezuela.<sup>42</sup> In other countries, national

utilities dominate (Costa Rica, El Salvador, Honduras, Nicaragua, Panama, Paraguay and Uruguay).

While larger public utilities are governed by private law, services in small and medium-sized cities are usually directly controlled by municipal departments (except Chile, Colombia and Peru, where providers must adapt to private law).

In Colombia, for example, where there was a strong municipal-led tradition during the last decade, the national government promoted a concentration of service providers that resulted in the transformation of municipal bodies into industrial and commercial state companies owned by shareholders (EICE SA), resulting in the creation 59 large companies at intermediate level. Despite this process, it is estimated that there are over 1,500 providers of water and sanitation services in urban areas and 12,000 community organizations in rural areas, of which direct municipal management represents 15%, private companies make up 12%, official 13%, mixed 6%, and authorized organizations 1%. There are notable examples of municipal companies with strong capacity and impact, particularly the *Empresas Públicas de Medellín* (Box 6.3).

In Argentina, drinking water is provided at the provincial level, with each province responsible for both regulation and oversight.<sup>43</sup> In Buenos Aires the service is provided by a national public utility. In addition, according to Calagno and colleagues, “some provinces have approved regulatory frameworks through provincial legislation (*Tucumán, Santa Fe, Buenos Aires, Salta, Misiones, Río Negro, Formosa, and Santiago del Estero*), while others have been approved by decrees by provincial executives, such as in *Mendoza, Córdoba, and Jujuy*. In the case of the City of Buenos Aires and the 17 districts of Greater Buenos Aires, regulation has been made via decrees by the National Executive.”<sup>44</sup> In Brazil, the municipalities responsible for water

<sup>41</sup> Aspiazu et al (2004); Beato and Díaz (2003); Castro (2007).

<sup>42</sup> Lentini and Ferro (2010).

<sup>43</sup> Lentini and Ferro (2010).

<sup>44</sup> Calagno, Gaviño and Mendiburo (2000,) p. 41



**Table 6.3 Summary of the provision of services and regulation of water services in Latin America**

| Country                   | Current Legislation                    | Predominant organizational body   | Policies                           | Main level of regulation | Regulating Body  |
|---------------------------|--|---|------------------------------------|--------------------------|--|
| <b>Argentina</b>          | 1980, early 1990 and since 2006        | Province and Metropolitan area of Buenos Aires. Municipalities.                                 | National or Provincial Governments | Provincial               | Sectoral specialized and multi-sector                          |
| <b>Bolivia</b>            | 2005-2009                              | Municipal   | National                           | National (in transition) | Specialized (in transition)                                    |
| <b>Brazil</b>             | 1970, new basic sanitation law in 2007 | State, municipal service providers concessioned to private companies or state                   | Central, State                     | State                    | specialized and multi-sector in some states                    |
| <b>Chile</b>              | 1988-90, 1998                          | Regional  | National                           | National                 | Specialized / National   |
| <b>Colombia</b>           | 1991 y 1994                            | Municipal   | National                           | National                 | Specialized includes solid waste and control of multi-services |
| <b>Costa Rica</b>         | 1996                                   | Centralized national. Municipal in rural areas  | National                           | National                 | Multi-service  |
| <b>Ecuador</b>            | 2001                                   | Municipal and provincial  | Provincial                         | Only Guayaquil           | Specialized  |
| <b>El Salvador</b>        | 1961                                   | Centralized national. Municipal   | National                           | No                       | No   |
| <b>Guatemala</b>          | 1972                                   | Municipal   | National                           | No                       | No   |
| <b>Honduras</b>           | 2003                                   | Municipal (in transition). National provider in form of municipalisation and municipal services | National                           | National                 | Specialized  |
| <b>Mexico</b>             | 1992                                   | State and municipal   | National - State                   | National and State       | Specialized / National and State                               |
| <b>Nicaragua</b>          | 1998 and General Water Law 2007        | National company. Three departmental companies and small municipalities.                        | National                           | National                 | Specialized  |
| <b>Panama</b>             | 2001                                   | National company  | National                           | National                 | Multi-services   |
| <b>Paraguay</b>           | 2002                                   | National company and small providers  | National                           | National                 | Specialized  |
| <b>Peru</b>               | 1994                                   | Municipal   | National and provincial            | National                 | Specialized  |
| <b>Dominican Republic</b> | 1998                                   | Regional/ provincial  | National                           | No                       | No   |
| <b>Uruguay</b>            | 1952. Constitutional Reform 2004       | National, except sanitation in Montevideo   | National                           | National                 | Multi-service  |
| <b>Venezuela</b>          | Since 1990 and new law in 2001         | Regional and National   | National                           | National                 | Specialized  |



**In Latin America, water is generally provided by the public sector.**

Source: Based on current official information for each country



### Box 6.3 - Public Utilities of Medellín (EPM)

Created on August 6, 1955, this company is owned by the municipality of Medellín and is the largest public utility in Colombia. In December 1997 it became an industrial and commercial public municipal company, with administrative and financial autonomy, as well as its own assets. It provides electricity, gas, water and sanitation, and telecommunications services. EPM covers 123 municipalities of Antioquia (3.6 million inhabitants). In recent years, the company has expanded to other regional and international markets, giving birth to the Business Group EPM (40 companies in Colombia, Guatemala, El Salvador and Panama) and generating an income of USD 5.5 billion.

EPM runs increasingly complex projects, such as hydroelectric development facilities (including the construction of the Ituango plant, which will generate 2400 MW, 17% of the country's installed capacity), with international and domestic funding.

It also has a deep commitment to its social impact. This is carried out through programs like Prepaid Energy, which allows services to be provided to thousands of families facing payment difficulties, "Antioquia Illuminated", which connects the most remote rural areas of the region, Housing Enabling programs and environmental protection through participation in the Water Fund.

Source: Federación Colombiana de Municipios and <http://www.epm.com.co/site/>

management have granted concessions for the service to state companies (with some exceptions such as Porto Alegre). The role of the private sector in the form of local or national companies in small and medium-size cities is growing, encouraged by the national development bank. In Mexico, most federal states have public utilities that provide services (see Box 6.4).

In Bolivia, the provision of services is devolved to municipal level, though there is also provision by local cooperatives and community organizations. The *Empresa Pública Social de Agua y Saneamiento* (EPSA) is responsible for the service. "... The largest-scale services are those in Santa Cruz de la Sierra, La Paz and Cochabamba. In Santa Cruz de la Sierra, provision is the responsibility of 8 cooperatives, the most important being SAGUAPAC; in La Paz and Cochabamba these services are provided via the EPSA." Recently, the creation of a Metropolitan Drinking Water Production

and Wastewater Company, as well as municipal Water and Sanitation companies for the distribution of water, were announced for the cities of La Paz and El Alto.<sup>45</sup> In rural areas, cooperatives and community organizations also provide services.<sup>46</sup>

In Ecuador, the drinking water and sanitation are responsibilities of the municipalities, whether directly or by local government utilities. In addition, according to Lentini and Ferro, "*The Subsecretary for Drinking Water, Sanitation and Solid Waste (Subsecretaría de Agua Potable, Saneamiento y Residuos Sólidos, SAPSyRS) part of the Ministry for Urban Development and Housing (MIDUVI) is endowed with the power to set policy in the sector, and to act in a supervisory and oversight role for the services. In the city of Guayaquil, ECAPAG (\*) has worked in a control and oversight capacity since 2001.*"<sup>47</sup> In 2012, ECAPAG was replaced by the Municipal Potable Water and Sewerage

<sup>45</sup> La Prensa 13 / 6/2013, Bolivia. <http://www.laprensa.com.bo/>

<sup>46</sup> Lentini and Ferro (2010) p. 4-5.

<sup>47</sup> Central Company for Water and Sewerage in Guayaquil, ECAPAG, See: Lentini and Ferro (2010) p. 9.



#### Box 6.4 Private sector participation in water provision

In 2012, Argentina and Chile handed over the responsibility for drinking water provision to private companies, turning it into a for-profit business under state guardianship, (by the Sanitation Service Superintendent in the case of Chile). In other countries, the private sector has taken on a smaller, though increasing role.

According to Jouralev, "... (i) Cities such as those in Bolivia (La Paz and El Alto), Brazil (various cities such as Jundiaí, Limeira and Manaus, among others), Colombia (with joint ventures in cities such as Barranquilla and Cartagena), Ecuador (Guayaquil), Honduras (San Pedro Sula), Mexico (Aguascalientes, Cancún, Puebla, Navojoa, etc.); (ii) tourism areas (such as Cuba, Mexico and Uruguay); (iii) BOT contracts (\*), especially for water treatment (mainly in Mexico, but also in Brazil and Colombia), the production of drinking water and the desalinization of sea water (some Caribbean islands); and (iv) small-scale drinking water systems ("aguateros" in Paraguay). In other countries, private participation is in its infancy, or non-existent."

Public-private partnership in water and sanitation services in Cartagena de Indias, Colombia. The creation of Acuacar, a joint venture by the Municipality of Cartagena and the Spanish company *Aguas de Barcelona*. This has allowed new investment in expanding drinking water and sanitation services into new areas, as well as in introducing water treatment at city-wide level.

(\*) Build, Operate and Transfer (BOT) contracts



**There is an emergence of autonomous community initiatives to supply services in areas not covered by public enterprises.**

Sources: Jouravlev (2004) p. 38.; Beato and Díaz (2003); Lobina and Hall (2003).

Company of Guayaquil (EMAPAG-EP), which increased the body's municipal role.<sup>48</sup>

Finally, there is also an emergence of autonomous community initiatives (under the form of cooperatives and micro-companies) to supply services in areas not covered by public enterprises (Box 6.5). There are also interesting experiences in which communities (Rural Water Committees) organize



#### Box 6.5 Community initiatives in water service provision

The public utility "Humberto Leigue" LTDA, Santa Cruz de la Sierra, Bolivia, was founded on March 3, 1977 with the objective of providing drinking water and sewers to its population. A group of neighbours set up a small water system (deep water well, an elevated tank and 1600 meters of pipes). The monthly payment of a fee or contribution of members to the Social Fund will enable the cooperative to provide continuity of service and expand provision. In 2001, it signed a contract with the Sanitation Service Superintendent granting it a concession to provide water and sanitation services to the neighbourhood.

<sup>48</sup> See: <http://www.eluniverso.com/2012/09/28/1/1445/desaparece-ecapag-crea-empresa-municipal-agua-alcantarillado.html>

Source: <http://www.cosphul.com.bo/>

directly the system, including the collection, maintenance and general operation (for example, in Bolivia, Chile and Peru).

The analysis of these sectors by international organizations based on some operational indicators indicate that, with the exception of some large companies, management is still poor: 40% - 50% rates of water loss; default levels for payments at over 15%, discontinuous water supply in nearly 30% of systems, micro-consumption measurement below 65%, and an over-employment reaching an average of 3.8 employees per

thousand connections (ADERASA, 2010). A comparison of these indicators in EU countries, where the rate of water loss is 20%, payment defaults near zero, and two employees per 1,000 connections, is revelatory.<sup>49</sup>

### Solid waste management

As discussed previously, local governments play a key role in solid waste management in Latin America, whether by directly providing the service or by contracting out

**Table 6.4 Population coverage according to type of waste management**

| Country            | Direct Municipal Provision | Contracts | Cooperatives | Other public |
|--------------------|----------------------------|-----------|--------------|--------------|
| Argentina          | 45.6                       | 54.3      | 0.1          | 0            |
| Bolivia            | 53.7                       | 37.9      | 8.4          | 0            |
| Brazil             | 41.9                       | 54.3      | 1.3          | 0            |
| Chile              | 18.8                       | 81.2      | 0            | 0            |
| Colombia           | 30.6                       | 69.0      | 0.4          | 0            |
| Costa Rica         | 72.3                       | 27.7      | 0            | 0            |
| Ecuador            | 79.9                       | 19.9      | 0.2          | 0            |
| El Salvador        | 79.4                       | 20.6      | 0            | 0            |
| Mexico             | 55.6                       | 25.2      | 19.2         | 0            |
| Peru               | 35.5                       | 64.5      | 0            | 0            |
| Dominican Republic | 73.7                       | 25.3      | 8.2          | 0            |
| Argentina          | 73.7                       | 22.1      | 4.2          |              |
| Bolivia            | 52.4                       | 47.6      | 0            |              |
| Brazil             | 59.0                       | 41.0      | 0            | 0            |
| Chile              | 66.1                       | 33.9      | 0            | 0            |
| Colombia           | 77.2                       | 22.8      | 0            | 0            |
| Uruguay            | 78.3                       | 21.2      | 0.5          |              |
| Venezuela          | 59.9                       | 24.1      | 12.0         | 4.0          |
| ALC                | 50.6                       | 45.4      | 3.3          | 0.6          |

Source: Martínez et al (2011).

<sup>49</sup> Cited by CAF (2012). Following the study undertaken by the regulatory bodies in the region (ADERASA), based on performance indicators for 2011 from a representative sample of companies providing services (10 countries, 30.7% of businesses and 19.5% of the population), key performance indicators are: average leakage 42% (against 40% in 2004) and continuity of service 73% (measured by continuous cuts of more than 6 hours). <http://www.aderasa.org/index.php/es/grupos-de-trabajo/benchmarking>

provision. Table 6.4 provides an analysis of the situation in Latin America by country.

The municipal management of solid waste (by municipal workers or autonomous municipal utilities) makes up 50.6% of waste collection services in the region and 52.8% of final disposal. Chile is an exception; it has granted concessions for most solid waste collection services, and directly provides services to just 18% of the population. In terms of final disposal, El Salvador, Colombia and Chile are the countries that have externalized services to the greatest degree (over 80%), while at the opposite extreme, in Bolivia, Ecuador, Guatemala, Honduras, Dominican Republic and Uruguay, 70% of services are provided directly by municipalities. In terms of street-sweeping, 59.4% of the population is serviced directly by municipalities.

Direct municipal management is generally used by the smallest municipalities, with contracting out to external operators increasing in proportion to the size of local governments. Private sector involvement has grown: contracts last between 5 and 7 years for waste collection and transport, and 20 years for final disposal. Service provision by micro-enterprises, cooperatives and NGOs is also growing (3.3% overall, rising to 7.8% in large cities, particularly in slums and informal settlements).

A major change in the organization of the sector is in increasing inter-municipal cooperation through inter-municipal associations in order to achieve better economies of scale and the enforcement of regulatory standards. These partnerships are especially important for both large metropolitan areas, where most urbanized municipalities or districts lack the land for treatment (e.g. sanitation landfills are shared by 156 municipalities in Sao Paul) and for final disposal, as is the case for smaller cities that individually cannot afford the cost of a landfill. Examples of regional integrated

waste management include the *Sistema Metropolitano de Procesamiento de DS* (SIMEPRODESO) in Monterrey, Mexico (4 million inhabitants, 4 transfer stations, 14 landfills, a recycling plant and power generation through 12MW biogas) and the VIRCH-Valdes consortium in the province of Chubut, Argentina (200,000 inhabitants, 2 transfer separation plants and a regional landfill for up to 250 tons per day).

There has also been a gradual introduction of integrated waste management strategies at municipal level, as well as technological innovations. Among the most important and widespread reforms include: modern collection vehicles (an average of 1.3 vehicles per 10,000 inhabitants, 58% of which have compacting systems), automated separation processes, separate recycling containers, systems for generating energy from waste, greater oversight of contractors and a significant improvement in frequency of household collection over recent years (daily collection for 45% of the population, and collections 2 and 3 times week for 53%).<sup>50</sup>

The informal sector in Latin America plays an important role in collection and recycling. It is estimated that the total number of informal recyclers is 8.57 per 10,000 inhabitants, which translates to just over 400,000 people across the region. Although there is progress in supporting formalization and integration into municipal management systems, this phenomenon is still in under development in the region, with only 19% of workers in the informal sector belonging to organizations. The lack of a programme to incorporate the informal with the formal sectors is the most common cause of failure of projects to close dumps and open sanitary landfills. Some municipalities have developed programmes to support the organization and improvement of collaboration with the informal sector (innovative forms of public-community association, see Box 6.6).



**A major change in the organization of the sector is in increasing inter-municipal cooperation through inter-municipal associations.**

<sup>50</sup> PAHO (2005).





### Box 6.6 Innovative initiatives to integrate the informal sector in waste management

Recyclers Association of Bogota, Colombia. Entrepreneurial initiative bringing together more than 8,500 families working in recycling. It is made up of various types of association, and is supported by the Mayoralty of Bogota.

Integrated Solid Waste Management in Belo Horizonte, Brazil. The strategy began in the 1990s. It included three elements: a) technological model based on differentiated management and recycling; b) modernization of waste management and worker participation, c) active citizen participation. As part of this strategy, the organization of informal sector cooperatives was promoted. In 2003, the waste collection cooperatives and informal collectors of debris created the Waste and Citizenship Forum of Belo Horizonte (*Foro de Residuos y Ciudadanía de Belo Horizonte*), which promotes their integration into waste management.

Recycling Lives Programme (*Programa Reciclando Vidas*), Londrina, Brazil. A request from organized rubbish collectors (*catadores*) who wanted to be able to compete with large and medium-sized companies led the Municipality of Londrina to change the terms of the tender of its waste collection service. The *catadores* transformed their associations into cooperatives, which were assigned with various collection zones, as well as a separation, sale and distribution plant. This has provided decent working conditions for the *catadores*, and increased the recycling capacity and sustainability of the city.

*Ciudad Saludable*, Grupo Ciudad Saludable, Peru: This social enterprise promotes the development of micro-enterprises with employees / partners that collect and treat waste in 20 cities in Peru. It works in coordination with local and government, businesses, schools and neighbours. Its innovative model of integrated waste management contributes to social, economic and environmental development of more than one hundred cities of Peru, promoting the social and economic inclusion of recyclers, and the integration of public and private sectors in the design of public policy, knowledge management and technological innovation with an appropriate intercultural approach. In 2008, it created a social enterprise, Peru Waste Innovation, which provides competitive and sustainable integrated environmental solutions to the market, with a high-level engineering and a social focus.

Sources: UCLG/ IDB FOMIN (2012); Terraza and Sturzenegger (2010); UN Habitat (2012)

To sum up, local governments in Latin America have taken on the management of waste and have made significant progress via a variety of models: direct administration, external provision and community partnerships. For their part, central and/or state levels have improved planning and auditing and, in some cases, defined programmes of public investment in to mod-

ernize waste services, often with the support of international organizations (see the initiatives of IDB or the World Bank in this area). At national level, health and environment ministries play a regulatory role for waste services.<sup>51</sup>

Despite the progress mentioned above, the municipalities in the region are faced, in the field of waste management, with a lack of

<sup>51</sup> Penido (2006) p.18.

resources, personnel training or sometimes with a lack of planning or technical challenges. It is necessary to improve comprehensive planning and investment in the sector, to make progress in selective collection and recycling facilities and to include informal workers in waste management. The information available about the sector for use in policy-making and planning is still scarce, unfocused and incomplete. This is reflected in the scarcity of reliable data on coverage and quality, efficiency, infrastructure and facilities, investments and financing resources at both local and national level.<sup>52</sup>

## Management of urban transport

In general, urban transport services in Latin America are divided into several sectors: the formal sector is managed by a few large operators (from either the public or private sector, see Table 6.5); the other sector is more traditional and covers a great part of urban public transport, it is made up of numerous small private operators and sometimes includes an informal sector.<sup>53</sup>

There are four examples of public bus companies: the metro-bus in Caracas, the trolleybus in Mexico City and Guadalajara



**The municipalities in the region are faced, in the field of waste management, with a lack of resources, personnel training or sometimes with a lack of planning or technical challenges.**

**Table 6.5 Features of bus service operators in selected Latin American cities (2011)**

| Metropolitan area | Type of organization                     | Companies | Vehicle ownership  | Legal arrangement         |
|-------------------|--|-----------|--------------------|---------------------------|
| Belo Horizonte    | Private company                          | 47        | Private            | Concession                |
| Bogota            | Private company                          | 52        | Private            | <i>Habilitación</i>       |
| Buenos Aires      | Private company / cooperative            | 231       | Private            | Outsourced                |
| Caracas           | Private and public (metrobus)            | 18        | Private and public | Outsourced                |
| Mexico City       | Independent/private and public (trolley) | 9         | Private and public | Concession                |
| Curitiba          | Private company                          | 22        | Private            | Outsourced                |
| Guadalajara       | Private/public (trolley)                 | -         | Private and public | Concession                |
| León              | Private company                          | 13        | Private            | Concession                |
| Lima              | Private company                          | -         | Private            | Concession                |
| Montevideo        | Private company                          | 5         | Private            | Outsourced                |
| Porto Alegre      | Private / public (Carris)                | 15        | Private and public | Outsourced                |
| Río de Janeiro    | Private company                          | 49/136    | Private            | Outsourced                |
| San José          | Cooperative/independent                  | 39        | Private            | Concession                |
| Santiago          | Private company                          | 6         | Private            | Concession                |
| São Paulo         | Private company                          | 25        | Private            | Concession and Outsourced |

Source: table from CAF (2011) p. 284.

<sup>52</sup> Penido (2006) Martinez et al (2011).

<sup>53</sup> CAF (2011) p. 306.

and the public company, Carris, in the city of Porto Alegre. In the case of the six metro systems (making up the majority of rail transport), four are operated by the public sector (Caracas, Mexico, Santiago and São Paulo) and two are privatized (Buenos

Aires and Rio de Janeiro). All urban rail systems (excepting Buenos Aires and Rio de Janeiro) are operated by the public sector.

Most large cities externalize services through concessions which, in general, are not the result of a bidding process, or



**Many cities lack appropriate planning instruments or are unable to implement them.**



#### Box 6.7 Evolution in managing urban transport

The urban transport situation is the result of changes over the last three decades. Although, until the 70s, there was a strong state role in the management of public transport, from the late 1980 a deregulation of public transport took place in almost all Latin American countries. The supply of small and medium capacity vehicles increased, as did very small private operators, leading to a significant deterioration of services to the detriment of users and the city (traffic congestion and air pollution).

However, during the last decade, there was renewed interest from local governments in public transport. The first example of this interest, as mentioned above, was the creation of bus lines with their own lanes (Bus Rapid Transit, BRT). The reference point for this new generation of transport is the *Transmilenio* in Bogotá, opened in 2000, which became the model for other metropolises in the region. Today, many large cities in the region have one or several lines of this type (Mexico launched the construction of its fifth line) and they are also being implemented in intermediary cities.

These BRT projects reflect, above all, a significant evolution in the governance of an essential service: the BRT are operated by local governments within the framework of concessions granted to the private sector. The numerous private operators that already existed were invited to form clusters within commercial societies and to respect strict specifications imposed by the local government.

But these reforms are not exempt from criticism. Implementation difficulties of the *Transantiago* in Santiago de Chile are often used to highlight the negative impacts that this new model of urban transport may have: rising travel costs, decreases in the supply and frequency of transport services, along with all the consequences this has for users (less access to mobility). In addition, the “reform” of the introduction of BRT in cities is often criticized as incomplete: these new transport lines could be a real improvement, but they are caught in existing systems still dominated by the traditional informal provision (hundreds of very small operators in a context of weak public regulation) that continues to operate as before. This tends to lead to a two-speed dynamic of public transport in cities.

Nevertheless, BRT opened the way to a process of renewed ownership of the city by local authorities, via mobility. Everywhere they have been introduced in the region, BRT helped change the vision and practices of the city. They opened a way for the introduction of ‘soft’ transport modes (bicycles) and the re-appropriation of public spaces. They are, in this sense, the beginning of a real change in Latin American cities.



through “licenses” which do not have the same legal weight. In most cases studied, there is a regulation of routes and vehicles, but the regulation is not as strong on the issues of service frequency. Smaller capacity vehicles that provide public transportation services are entirely private and operate under weak regulation. In the informal sector, the development of motorized tricycles (Bogota, Lima and Guayaquil) or motorcycle transport (in Colombia, Brazil and Central America and the Caribbean) are worth mentioning.

The institutional systems that are responsible for integrated transport management are still weak. Many cities lack appropriate planning instruments or are unable to implement them. The responsible authorities fail to coordinate with one another. The *Transantiago* was built without the participation of the 38 mayors who represent the metropolitan area. In Buenos Aires, transport responsibility is shared between national authorities and the autonomous government of the city, but the 18 peripheral municipalities play no role. Often, in order to promote a new project, new entities are created that overlap with existing institutions without any coordination between them. Even if there is political will in metropolitan areas to establish effective institutional coordination, this is rarely achieved.<sup>54</sup>

## Financing and charges

In recent decades, there have been great efforts to invest in basic local services in Latin America. This has included the implementation of government policies in drinking water programmes, rural electrification, provision of sewers and sanitation, and transport, which have contributed to improving access, alongside initiatives by international financing bodies.<sup>55</sup> There have been notable social policies in the region (e.g. in Brazil), which have worked through local governments to re-

duce poverty and provide subsidies to people without access to basic services.<sup>56</sup>

This increase in investment has improved access levels, although, as discussed below, financing is still insufficient to meet current demand.

There has also been progress in the financing of basic services via direct charges to users, tariffs are usually still subsidized. However, transfers from central or intermediate level governments are still the most widely used mechanism for improving and expanding basic services.

Local governments have contributed to these efforts by improving the mobilization of their own resources, and better managing the resources they receive from national or sub-national governments. These resources are often distributed via some form of competitive bidding process between regional or local governments in each territory. It should be noted that the management of some of these mechanisms are controversial; due to their conditionality and, sometimes, complexity, they often place an administrative burden on local authorities and restrict their decision-making abilities.<sup>57</sup>

Overall, joint action by different levels of government is an indispensable tool in the process of ensuring universal access to quality basic services.

## Water and sanitation

It is estimated that average investment in this sector in recent years (2009–2011) rose to 0.11% of GDP (USD 4.429 billion), and that it was intended, mainly, for the expansion of water and sanitation networks.<sup>58</sup> There have also been significant investments in treatment plants, but these have often been isolated and failed to form part of an integrated strategic plan (sanitation of the Tietê River in São Paulo, the basins of the Matanza-Riachuelo and Reconquis-



**Transfers from central or intermediate level governments are still the most widely used mechanism for improving and expanding basic services.**

<sup>54</sup> Figueroa (2012); CAF (2010).

<sup>55</sup> The average number of loans approved by major financial institutions (IDB, World Bank, CAF) in the region has increased significantly in recent years, reaching USD 2.047 billion between 2006 and 2012. This financing is channeled through national governments. There are few examples of direct funding to municipalities (sub-sovereign credits). A level of technical co-operation also involves various UN agencies and bilateral cooperation agencies, such as OPS/OMS, UNICEF, JICA, GTZ, AECI.

<sup>56</sup> For example, the “Bolsa Familia” in Brazil, or the *Sistema de Protección Social Chile Solidario* in Chile in effect since 2002. The implementation of the ANGEL Plan in Mexico City and other initiatives benefitting the elderly, youth and employment of disadvantaged sectors, as well as redistributive social programs introduced in Bogota, Montevideo. See Paquette (2012) on the Mexican situation.

<sup>57</sup> UCLG (2010).

<sup>58</sup> CAF (2012).

ta in Buenos Aires, the Bogotá River, the Atotonilco treatment plant in the Valley of Mexico, the City and Bay of Panama; and the building of the Taboada plant and pipes in Lima). Only Chile has a national investment programme aiming to achieve national wastewater treatment coverage by 2021.<sup>59</sup>

The same source argues that, although significant, this initiative will be insufficient to respond to the region's economic growth. It is estimated that, from 2010 to 2030, an average annual investment of USD 12.5 billion (0.3% of the regional aggregate GDP in 2010, a total of USD 250 billion) will be required to close the infrastructure gaps for drinking water and sanitation in Latin American cities, including the improvement of slums.

Most countries in the region finance their investments through a combination of three sources: tax subsidies (all 15 countries surveyed); revenues from user tariffs (6 countries out of the 15); and, in Argentina, Brazil, Colombia, Ecuador, Mexico, Peru and Venezuela, resources from national investment funds (e.g. FISE FINDETER) or banks (BNDES, CEF) in Brazil and multilateral financing (IDB, CAF, World Bank), which accounted for 37% of investment in the sector in recent years.

#### Types of financing of basic services (water and sanitation)



Taxes and subsidies



Revenues from user tariffs



National or international loans

In general, revenue from user payments for services more or less cover operating costs. According to 2011 ADERASA study by the regulatory bodies of the region based on

a representative sample of 10 countries, 30.7% of existing businesses and 19.5% of the population), the average company generated revenues somewhat higher than its operating costs (1.48: 1 represents the point where a company breaks even; in 2004 the average stood at 1.68). However, according to the CAF, these surpluses are insufficient to ensure the effective operation of systems.

In terms of the performance of companies in the sector (according to the same study ADERASA)<sup>60</sup>, 67% of connections are to households with meters (micro-measurement), although this varies between 20-30% in Argentina to over 90% in Chile and Uruguay. The average default level is 15% (almost three months for major companies, 16 for the rest).

According to the study, the average price per cubic meter of drinking water and sewers is USD 0.43, with extremes of USD 0.11 and USD 5.09. The price-setting mechanisms are strongly influenced by national policies; by the decisions of regulatory agencies (Chile, Colombia, Peru, which provide cross subsidies and tariff bands); by the administrative procedures for cost recovery (Uruguay); by the continuity of old systems also based on costs, adjusted for inflation (Brazil); or a combination of these systems. In Chile, municipalities identify beneficiaries and manage the administration of subsidies, while municipalities in Colombia classify the properties that can benefit from cross subsidies. In the case of Mexico, tariffs must be approved each year by the governing bodies of each state. Service providers usually need to seek the approval of higher state levels to change their charges. In general terms, the prevailing practice is an annual adjustment based on inflation in the previous period. In this context, the case of Panama, where water service charges have been frozen since 1982, is notable.<sup>61</sup>

<sup>59</sup> CAF (2012) p.24.

<sup>60</sup> <http://www.aderasa.org/index.php/es/grupos-de-trabajo/benchmarking>

<sup>61</sup> CAF (2012) p. 25.



There are, therefore, difficulties in financing water and sanitation services, as well as in setting prices according to people's ability to pay. The main factors that hinder self-financing are, according to Jouralev, "... (i) weak ability to pay and culture of payment, coupled with the absence of effective subsidies for low-income groups, and (ii) high costs of provision, often due to business inefficiency and high labour costs and debt."<sup>62</sup>

In terms of subsidy systems, beyond the more established models of subsidies to poor areas (Chile), in most countries cross-subsidies vary greatly. There are also direct subsidies financed by taxation (Ecuador, originated telecommunications services, and El Salvador which began with

services, as described in Box 6.8.<sup>63</sup> With consistent support from the IDB, UNICEF and WHO, new mechanisms and subsidies have been set up to ensure continued access to these services to a large proportion of the needy population.

### Solid waste management<sup>64</sup>

The most worrying issue in this sector is insufficient cost recovery. It is estimated that current average cost recovery is around 51.6%, with a slight improvement seen over previous years insufficient to guarantee the financial sustainability of services. At the same time, there was an increase in the cost per ton of solid waste collected, transferred and disposed (of nearly 42%, from USD 47/ton to almost USD 67/ton).



**A barrier to the expansion of domestic connections is the inability of poor families to pay for services.**



#### Box 6.8 Bogota: water rates that exclude the most deprived

*"In terms of the pricing of water and sanitation in Latin America, it should be noted that, in 2005, the average cost of consumption of 20 cubic meters of water rose to 11 dollars (this price varying between 5 and 15 dollars). Bogota was the most expensive city, with prices five times higher than those in Arequipa or La Paz.*

*In accordance with the United Nations Development Programme (UNDP), to guarantee the right to water, the cost of the system and service should not exceed 3% of household income. In 2005, spending on water in poor households of Bogota (the bottom two quintiles of the population) neared 14% of income if it did not have access to subsidized rates, and exceeded 8% of income even for households that did. Within the regional context, this case stands out for its contradictions, with high-standard, near universal drinking water coverage, but at an extremely high cost for the poorest parts of the population."*

Source: UN HABITAT (2012) p .87.

electrical distribution). In some cases, subsidies are provided in a targeted manner (Chile), in others the grant is general (Argentina and Bolivia), or handled according to specific criteria (often political). A barrier to the expansion of domestic connections is the inability of poor families to pay for

The cost per ton ranges from USD 10 to 12 in Paraguay and Honduras to USD 70-86 in Brazil and Argentina. The increase in cost per ton is attributed to investment in new technologies, the rise in prices of fuel and other factors (including the movement of Latin American currencies against the dollar).

<sup>62</sup> Jourvalev (2004) p. 53.

<sup>63</sup> CAF (2012) p. 2.

<sup>64</sup> Information for this section drawn from: Martinez et al (2011).



**The inability of municipalities to ensure the financial sustainability of services hinders the development of the sector.**

Insufficient cost-recovery and a lack of management based in appropriate accounting that clearly identifies the revenues and costs of the service, are the most critical obstacles to the sustainability of the sector. Given inadequate collection of payments, overall service subsidies amounted to almost 49% of the real costs in 2010 (it was 53% in 2002) and are distributed unevenly between rich and poor. To correct this, strategies of cross-subsidies or direct subsidies, such as the tariff system used in Colombia, are necessary. There, service charges are regulated by the *Comisión Nacional de Regulación de Agua Potable y Saneamiento* (ARC) which sets a ceiling for each municipality, adjusted according to other variables (e.g. socioeconomic status and type of user). The charges to the poorest are subsidized (through the *Sistema General de Participaciones* and transfers from departments and municipalities to operators). However, some cities manage to balance their services. An example of this is the city of Cuenca in Ecuador which, since 2001, has regulated its charges, managing to cover the cost of operating and maintaining the municipal public utility in charge of the service (EMAC-EP).

The preferred form of payment in the region is through property tax (used by 60.4% of municipalities). Some 13.7% of municipal-

ities collect payments via bills for drinking water and sanitation, while 18% send regular bills to users, and only 7.9% charge via electricity bills, although this last method has the highest collection rate of the four options studied. 81.2% of municipalities undertake billing and collection services in house.

In summary, although there is a trend towards improved financing for waste management in the region, overall services operate with subsidies due to the absence of adequate costing and pricing mechanisms (with the exception of Colombia and Chile), as well as shortcomings in the billing and collection. The inability of municipalities to ensure the financial sustainability of services hinders the development of the sector.

### Urban transport<sup>65</sup>

Total operating expenses for motorized transport in 2011 rose to USD 82 billion per year. Most of this amount (USD 63 billion, i.e. 78%) was on individual transport. The metropolitan areas with the highest spending are Mexico, Sao Paulo and Buenos Aires, while Leon and Montevideo spend the least.

In contrast to European cities, there are few cases of subsidies for public transport in the Latin American cities analysed in the CAF



#### Box 6.9 Individual costs of urban mobility

The cost of public transport has been estimated by comparing the proportion of the official minimum wage needed to buy 50 journeys per month, and the estimated average wage in the metropolitan area. The cost of 50 bus tickets varies widely among the areas analyzed, ranging from a low of 3.2% in San José to 25% in Brazilian cities (but the 40% of passengers that receive transport vouchers from their employers spend about 12%).

<sup>65</sup> Information in this section drawn from CAF (2011).

(2011) study. Most subsidies are for railways and metros (60%) in five systems (Belo Horizonte, Buenos Aires, Mexico, Porto Alegre and São Paulo). But there are also four subsidized bus systems (representing 18.1% of revenue and 15% of total cost) in four cities (Buenos Aires, Montevideo, Santiago and São Paulo). All services in the bus systems in Buenos Aires and São Paulo are subsidized. The largest subsidy is in Buenos Aires, which amounts to almost 180% of total revenue. In São Paulo, total subsidies account for about 17.5% of total revenue.

In almost all countries, transport fares are regulated by states or municipalities. There are just two cases in which fares are unregulated (combis in Buenos Aires and all transport in the city of Lima). In most public transport systems there are special fares

for particular sectors of the population (students, pensioners and the disabled).

The contribution of fares to transport financing varies widely; for example, while in Santiago de Chile the metro fare is USD 1.2, in Mexico City it is just USD 0.3.

The cost of public transport can vary considerable as pointed out in Box 6.9. The high cost of public transport in most cities has a particularly negative impact on the poorest citizens. High costs, coupled with access deficits for those who live in the city outskirts, explains why political tensions in many Latin American countries are rooted in the issue of public transportation (e.g. demonstrations in Brazil against rising transport fares in June, 2013).



**The high cost of public transport in most cities has a particularly negative impact on the poorest citizens.**



Photo: Digo Souza

## 6.5

### The needs of the population: solidarity, community dialogue and participation

#### Organized citizens, critical actors

An analysis of the link between citizens and service providers suggests that the primary relationship is one of complaint handling. As explained below, there is a long and significant history of the participation of citizens in the management of services in Latin America.

Many municipalities have developed rapid response systems for receiving and responding to the demands of citizens. Some have been very innovative, relying on new technologies to improve the transparency and speed of response. Civil society has also worked innovatively through consumer organizations or NGOs specializing in complaint handling.

In many countries, there are both national and local public consumer protection bodies (ombudsman, watchdogs, service provider agencies and regulators). These often act alongside civil society organizations. The idea of local ombudsman has gained ground in the municipalities of Buenos Aires, Mexico City, Montevideo, Sao Paulo, and Brazilian and Bolivian cities.

There is also a tradition of neighbourhood organization and mobilization to improve public services in Latin America, especially in poor neighbourhoods. In previous

decades, the focus of citizen action was on housing. Today, it has widened to include demands for neighbourhood amenities, well-functioning basic services, access to quality healthcare and education, solutions to environmental problems, and law-enforcement and security.

Similar forms of participation are rooted in the experiences of specific population groups that participate directly in the provision of services under microenterprise models, cooperatives or the informal sector. In some countries and municipalities, the participation of these sectors in management to improve coordination and complement public services is encouraged. One of the most important examples has already been mentioned: organizations of waste-pickers whose inclusion is promoted through municipal separated waste collection programmes. Several countries in Latin America (Brazil, Chile, Colombia, and Peru) have made progress in establishing regulatory frameworks that recognize such groups' capacity to make legal and institutional commitments. Recyclers' associations in the region have been setting up their own organizations since the 1990s. For example, the Latin American Network of Recyclers is now present in more than 15 countries.<sup>66</sup>

Some countries in the region have also made progress in the legal regulation of public participation in basic services, establishing systematic and quasi-binding consultation and control mechanisms for management and decision-making regarding services. For example, in Colombia, legislation (national law No 142 on public service users) provides for the participation of representatives of civil society through "oversight spokespeople" on the board of companies providing services, the number of which depends on the number of inhabitants served. The representatives have the power to exercise oversight, and to participate in discussions about tariffs and ser-

vice planning. There are similar initiatives in Chile and Peru, but citizen representatives (via consumer associations or local user committees) play only an advisory role. There are currently no known evaluations of the implementation of these laws.

Local governments have been involved in a variety of widely recognized examples of citizen participation that are rooted in the region's tradition of citizen organization. They have used different consultation mechanisms, both binding and non-binding (open meetings, referendums, etc.). One of the most recognized and innovative examples of its time was the participatory budgeting launched in Porto Alegre in the early 90s; this has since spread to many cities in the region. Studies of the twenty year history of participatory budgeting in Porto Alegre indicate that the process has integrated population groups traditionally excluded from urban politics, and has resulted in an improvement in the provision of basic services. For example, between 1988 and



**There is a tradition of neighbourhood organization and mobilization to improve public services in Latin America, especially in poor neighbourhoods.**



1999 participatory budgeting increased the volume of solid waste collected, the amount of street lighting, and sewer coverage. The

<sup>66</sup> <http://redrecicladores.net>





**Local governments are tasked with responding to everyday acts of violence.**

World Bank has also attributed the paving of half of the municipality's streets and the doubling of the number of students enrolled in primary and secondary schools to this process. To include new sectors of society in the management of services, Porto Alegre is now looking to create, in the context of internal municipal decentralization, territorial management committees, which will play a role in supervising or co-managing services, including outsourcing contracts.<sup>67</sup>

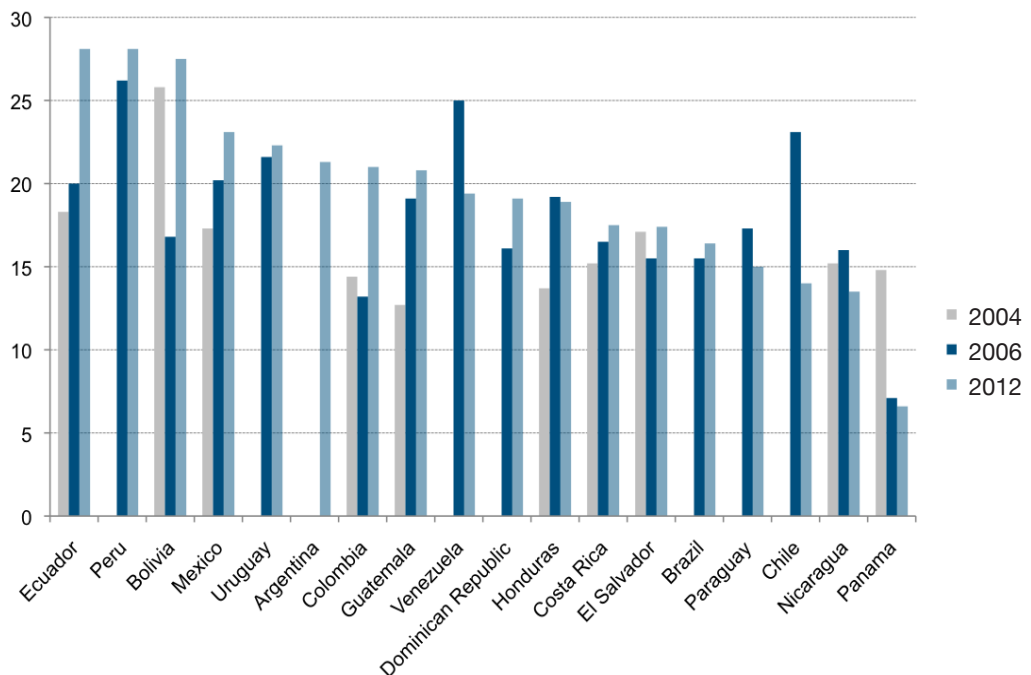
Nevertheless, the advances in citizen participation are still limited. In many countries, legal frameworks are lacking or not enforced. Except for some countries or cities where there are mechanisms for monitoring and oversight of public services (e.g. *'Bogotá Como Vamos'*, and the national information service for sanitation in Brazil), it

is generally not easy to access information to facilitate participation, either because the information is patchy or not made public. Local governments are best placed to collect and publish information on basic services, both for services that they provide directly, and those that are provided by external stakeholders. This can serve to promote effective participation, permanent and constructive. Furthermore, this information is essential in the local and national policymaking.

### Public security, a top priority

Over the past decade, the issue of violence and insecurity has come to the forefront of public concerns in the region, particularly in large cities. As never before, national, sub-national and local governments have been

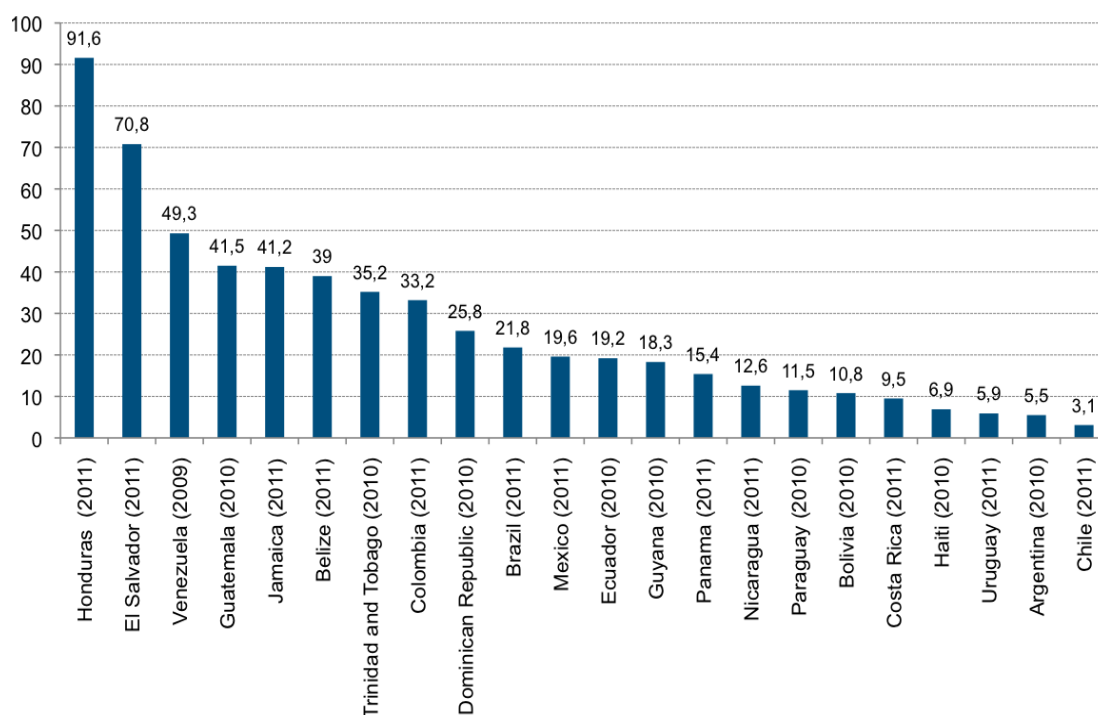
**Figure 6.5 Public security in Latin America**



Source: CESC and LAPOP [http://www.altus.org/index.php?option=com\\_content&view=article&id=35&Itemid=77&lang=en](http://www.altus.org/index.php?option=com_content&view=article&id=35&Itemid=77&lang=en); <http://www.vanderbilt.edu/lapop/>

<sup>67</sup> Wagle and Shah (2003).

**Figure 6.6 Homicide rates per 100,000 inhabitants in Latin America and the Caribbean**



Source: CESC <http://www.altus.org>



#### Box 6.10 Mexico DF: “For your family, voluntary disarmament”

The government of Mexico City designed its voluntary disarmament programme in December 2012. It involves the exchange of firearms for grants and household goods. Through a voluntary and anonymous mechanism, and with the cooperation of churches, the programme has had significant impact. In three months more than 4,000 guns have been collected. It has been building a culture of peace among citizens, the slogan of the programme is: “For your family.”

Source: <http://www.consejociudadanodf.org.mx/>



**Local government, as the public body closest to the people and their organizations, plays a bridging role between the police and the communities they serve.**

confronted with situations of such complexity that they have even affected their ability to govern. Figures 6.5 and 6.6 provide a sense of the extent of the problem.

A top demand by a significant proportion of the population is for improved public security. This demand relates not only to organized crime, but to everyday violence and insecurity in neighbourhoods. Actual attacks, thefts, muggings and, above all, a sense of insecurity, are widespread. This is shown by the perceptions of violence indicator, and the index of reported crimes, both of which are on public record in all of the countries in the region.<sup>68</sup> Local governments are tasked with responding to everyday acts of violence, with recent projects being launched in Central America and the Caribbean. Box 6.10 describes one such response.

The problem of everyday violence is greater when there is urban deprivation and unemployment (particularly of young people). Indicators of insecurity rise in line with indicators of school drop-outs, fractured neighbourhoods, or private wealth and public squalor (vacant lots, abandoned squares, green areas and public spaces). Furthermore, when the police can't access certain territories or its officers are seen as suspicious, citizen perceptions become even more negative, and they begin to see their neighbours as part of the problem, not as part of the solution. The mothers of the disappeared in El Salvador, Central American gangs, violence in the cities of Venezuela, recurrent killings and crime in Mexico, Brazil and Colombia, and the permanent fact of violence across the region, are realities which feed a climate of insecurity, and which demand new strategies, programmes and projects to resolve them.

Local governments can't wash their hands of this serious and growing problem. Recent municipal elections in Mexico, Brazil and Chile have sharply demonstrated that a top concern of citizens is security, ranking

above concerns about employment, housing, health, education, poverty, services and urban legislation, all of which have traditionally been demanded of municipalities. The same is revealed by the *Latino-barómetro* annual survey of public opinion, the results of which have been increasingly featured in the annual economic reports of CEPAL.<sup>69</sup>

Local governments must work in close collaboration with state and central government in order to deal with this serious issue, establishing exceptional multilevel coordination to develop penal programmes, rehabilitation and reinsertion programmes, an education programme and, particularly, links between communities and the police.<sup>70</sup> Also necessary are politically strategic institutional practices, an appreciation of the role of local communities and civic organizations, and improvements to, and cleaning-up of, the police, including their procedures and rules.

A new scheme is required, like that in Canoas, Brazil, which incorporates intelligence and information, a community policing approach and a full social programme including equipment, space, urban development, sports and culture.<sup>71</sup>

Local government, as the public body closest to the people and their organizations, plays a bridging role between the police and the communities they serve. There are ever more examples of cases where active municipalities have served to build effective horizontal relationships between citizens and the police. Boxes 6.11 and 6.12 offer examples. Community organization itself has become a major antidote to insecurity and delinquency in its role as a launch pad for warning, reporting and information provision. Often, the better organized a community is, the greater is both its level of security and sense of security, especially when accompanied by a trusted, professional and open police force, open to collaborating with community organizations.

<sup>68</sup> Beliz (2012).

<sup>69</sup> <http://www.latinobarometro.org/latino/latinobarometro.jsp>

<sup>70</sup> Dammert (2012).

<sup>71</sup> Presentation of Mr. Jairo Jorge da Silva, Mayor of Canoas in the GOLD III Workshop, Montevideo (Uruguay), 27 May 2013 (unpublished).

Safe neighbourhoods, schools and the regeneration of public spaces are some of the key elements of local government's poten-

tial role, as long as it can rely on the systematic support of other levels of government for multilevel collaboration.



#### Box 6.11 Public security in Santa Tecla, El Salvador.

Considered, until 2005, as one of the most violent municipalities in El Salvador, Santa Tecla has made remarkable progress in safety indicators. A strategy was designed that raises awareness in communities about respect, tolerance and solidarity. The municipal legal authority has been strengthened and coordination with national institutions and the police has been improved. Citizen security committees play a preventive role in gun control and alcohol.

Seven years into the work Santa Tecla has the best safety record in the country.

Source: UCLG IDB/FOMIN (2012)



#### Box 6.12 Municipal initiatives dealing with citizen (in)security

**Improvement of the Municipal Police Patrol of the Municipal District of Víctor Largo Herrera, Peru.** The municipal patrol of public spaces was reinforced by logistical and technological action, capacity-building, and collaboration with neighbourhood groups on prevention and alerts. This resulted in a notable increase in reporting and petitions by the community.

**Community Policing in La Paz, Bolivia.** A police force working in parallel to the state police, whose activity has extended citizen protection, protected individual freedoms, and safeguarded human rights.

Source: UCLG IDB/FOMIN (2012); Castro (2010); British Council (2007) and British Embassy (2011).

## CONCLUSIONS AND RECOMMENDATIONS

A review of the responsibilities of local governments and sub-national entities in providing basic local services, shows great diversity across the region. On the one hand, there are powerful municipalities in some large and intermediary cities which assume a leading role in these matters, with growing technical capacity and resources enabling them to have an impact on different sectors and, moreover, develop institutional leadership in the provision of basic services (e.g. Medellín EPM). To this end, many municipalities have developed different forms of collaboration with the private sector and community, whether by way of service contracts, joint ventures or other forms of association.

Beyond these leading municipalities, most of the municipalities in the region are in a weaker situation in terms of financial resources and management skills. Services in these municipalities generally have lower quality and access indicators, management which is more dependent on political links and transfers from other levels of government, as well as difficulties in applying sector regulations.<sup>72</sup> As stated in the same study, the decentralization of the provision of services requires strong incentives, driven by central governments.

Rural municipalities in Latin America face even greater challenges. These municipalities have serious difficulties in meeting the needs of smaller, dispersed populations. In some areas, there is severe poverty and deprivation, especially in peripheral regions and traditionally marginalized ethnic communities. Despite this, many municipalities

have developed innovative rural water and electrification programmes, in which communities install autonomous service delivery systems with the support of targeted public programmes and/or international aid. The leadership of the authority rests, most of the time, in mayoralties that are strongly rooted in their local communities. They are usually recognized by citizens and are “the state” for the populations they represent and serve.

Despite difficulties and complex conditions, there are significant examples of good local governance in Latin America. These are explained by a positive combination of local leadership, civic management, innovation and entrepreneurial partnerships with private or public entities. Many municipalities have also made significant progress with the support of citizen participation, and developed have social policies that are responsive to the inclusion of disadvantaged households and the informal sector.

A new phenomenon, which has spread in recent years, is the creation of *inter-municipal associations* to optimize water provision and the collection and disposal of solid waste by generating economies of scale and better exploiting externalities. These forms of horizontal cooperation should be supported with legal and financial incentives because they are a potential solution to the issue of municipal fragmentation.<sup>73</sup>

In contrast to this phenomenon, and with certain exceptions (Lima, Quito, Bogotá, San Jose, Costa Rica and some intermediate agglomerations, such as Monterrey),

<sup>72</sup> CAF (2012) p.20

<sup>73</sup> For more on inter-municipal associations, see San Miguel de Tucumán (2012).



coordination and cooperation in the planning and management of services across large metropolitan areas remains weak or non-existent, except when there are state or national public utilities that take on service management (particularly in the area of water and sanitation), but such activity often involves insufficient consultation of local governments.

Given the increasing complexity of basic services, better mechanisms to improve coordination and collaboration between different levels of government (national, intermediate and local) are also needed to optimize resources and capabilities, avoid duplication or institutional gaps and, in many cases, to promote policies that support smaller, less-well equipped local governments to better meet their responsibilities.

Overall, local governments in the region have been important, if not decisive, players in improving the coverage of basic services, either directly or in partnership with other levels of government, the private sector or communities. This report shows progress in access to drinking water and sanitation, though to a lesser degree for wastewater treatment. There is also progress in solid waste collection and disposal, though separated collection and recycling is still poor. The report also highlights efforts to modernize the management of urban public transport, with flagship programmes (the *Transmilenio*), which need to be implemented in a more holistic way with a consideration also of how to integrate traditional forms of transport.

To continue this development and overcome its sometimes ad hoc character, policies need to be integrated into more comprehensive sectoral management plans for water, sanitation, solid waste and transport. These plans must be coordinated with urban strategic development plans and/or territorial development plans, to encourage coordination between the different institutions and stakeholders and, above all, to set more ambitious long term goals. As noted above, the percentage of local governments with proper planning for all basic service sectors is still limited.

This deficiency contributes to the persistence, despite some improvements, of unequal access to basic services. Many populations in poor suburbs and marginalized areas are still lacking in access, either due to lack of coverage or the low quality of services, or tariff issues. The delivery and management of basic services in Latin America still suffer from the urban segmentation mentioned in the introduction.

Thus, while middle- and upper-middle-class neighbourhoods enjoy good access to water, waste management and energy, and travel in private cars on fast toll-roads, many neighbourhoods, especially slums, where nearly a third of Latin Americans still live, suffer from deficiencies in access to basic services that are a major obstacle to their full integration into the city.

This issue of social and spatial fragmentation in the cities of the region has a direct impact on the governance of the services and the collaboration arrangements with



**Local governments in the region have been important, if not decisive, players in improving the coverage of basic services, either directly or in partnership with other levels of government, the private sector or communities.**



**Where there is a proper decentralization policy that gradually allows local governments to take on more active roles, their contribution is vital in meeting people's basic needs.**

national governments, the private sector and communities. On the one hand, due to levels of poverty, universal access to services can only be achieved through appropriate social policies that include the granting of large subsidies, the architecture of which needs to be revised to improve its equitability in many countries.

Moreover, as already noted, local authorities are faced with the continuous growth of the urban peripheries (which will grow by 90 million people over the next decade), the backlog in infrastructure in slums and the degradation of historic centres.

While it has not been explored in detail in this report, the growing impact of climate change on basic services, not only in relation to the problems of drinking water, mentioned briefly, but also in terms of the need to reduce the vulnerability of infrastructure to increasingly severe weather phenomena (floods and droughts resulting from El Niño or La Niña) and the impact of natural disasters (particularly Mexico, Central America, the Caribbean and the Andes) with the risk they pose to the population, particularly the poorest.

This presents both local and national governments with a complex financing challenge. In the water and sanitation sector, as noted above, an annual investment of USD 12 billion is required over the next 15 years, while investment over the past decade amounted to just USD 4 billion a year. To reduce these gaps, further national investment in these sectors will be required, as well as public, private and international financing.

Once again, the role of local government is key at all levels:

- to drive social policies, reviewing and targeting subsidies to reach the most vulnerable;
- to improve the efficiency of management departments or municipal utilities in order to reduce costs (e.g. loss reduction,

improved productivity, new management methods and technologies);

- to improve payment collection (e.g. reducing payment defaults) and local taxation to mobilize more resources, ensuring greater equity;
- to promote closer cooperation, not only with the private sector, but with small service providers and the informal sector.

The CAF study estimates that better productivity and improved collection could provide USD 5.8 billion in savings, and that USD 4 billion could be gained just by revising subsidy policies in the water and sanitation sector.<sup>74</sup> Policies to strengthen local management of services, combined with appropriate regulatory frameworks and better collaboration between different stakeholders and levels of government could reduce the financing gap by almost 80%.

This report suggests that, where there is a proper decentralization policy that gradually allows local governments to take on more active roles, their contribution is vital in meeting people's basic needs. More efficient governance requires national policies that promote social inclusion and make commitments with local governments, enhancing their role in the development of their communities. It also requires active, efficient local leadership and a private sector engaged with the needs of the community.

In cases of highly complex services, such as security, local governments should agree to take an important role, facing emerging problems alongside society and civic organizations.

The policy proposals implied by this analysis are as follows:

- National public policies that guarantee universal and quality access to basic services;
- Adapting the legal and regulatory frameworks for the provision of basic services and encouraging collaboration between

<sup>74</sup> CAF (2012) p. 44-45.

different levels of government and stakeholders;

- Improving the funding of basic services, and the investments needed to respond to the growing demand for services related to the current demographic structure of Latin America and continued urban expansion;
- Improving the technical and professional capacity of local governments, equipping them with effective power to develop strategic plans that make it possible for them to prioritize, promote and monitor the provision of services more efficiently;
- Strengthening the role of the citizens in policymaking and oversight to improve the provision of basic services, particularly for the poorest populations.

- Strengthening programmes to improve the access and the quality of basic services, focused on poor neighbourhoods, shantytowns and marginalised rural areas, using the power of local governments and citizens' organizations. The national redistributive social programmes must be run jointly with the municipal level, which is an essential ally in the localization of social policies;
- Promoting policies of urban integration and social inclusion, which also respond to the challenges of public security and the environmental fragility in the framework of the Post-2015 Development Agenda;
- Creatively replicating successful projects and programmes, for example in urban security, adapting them to each local situation and achieving greater effectiveness and efficiency in projects.

This report demonstrates that, where there is appropriate decentralization involving an active role for municipalities or municipal associations, local governments perform a vital role in meeting the population's most basic needs.

## Recommendations

### ***National policies favouring access to quality basic services, focused on citizens***

During the last decade, millions of families in Latin America have risen out of poverty thanks to redistributive policies that have improved living conditions and access to basic services. In some countries, targeted social programmes have been implemented through partnerships between municipalities and community action to reach the vulnerable population.

Nevertheless, important challenges persist in the coverage and quality of basic services. These require:

### ***Adapting legal and regulatory frameworks in the provision of basic local services to the citizenry and generating better collaboration, both inter-governmental and with private operators***

After three decades of complex processes of decentralization, it is necessary to take decisive steps in:

- Continuing the processes of decentralization, founded on the principle of responsiveness and accountability to local service users and the ability of local governments to promote territorial development (the principle of subsidiarity);
- Reviewing legal frameworks, updating and simplifying the rules and regulations in the provision of basic services; also reviewing the role of the institutions or national regulatory agencies, so that they can give greater support to local governments;
- Improving coordination between the different levels of government for the

provision of basic services, ensuring complementary and efficient action, facilitating multi-level governance with full respect of the local autonomy; creating mechanisms to clarify powers, costs, finance and problem solving, such as the *Comisión Nacional de Competencias* in Ecuador;

- Defining a precise legal framework to facilitate public-public and public-private partnerships, with institutional frameworks to guarantee public interest and social inclusion. Designing specialized units to support local governments in contracting, monitoring, and evaluating the provision of services;
- Promoting horizontal cooperation between local governments to obtain economies of scale and greater efficiency in the provision of services.

### ***Improving funding and investment in the provision of basic services***

To broaden access and the quality of services it is necessary to give local governments the funding they require and to improve access to loans with action such as:

- Increasing the revenue sources of municipalities with more dynamic local taxation, improved management and a strengthening of their revenue collecting capacities; facilitating, at the same time, local access to national and international finance;
- Designing systems of non-discretionary transfers to promote the provision of basic services, limiting conditions and ensuring a minimum of infrastructure or basic services in each territory, with safeguards for local revenue and good systems of accountability;
- Promoting payment by users for public services, fostering a culture of payment and the financial sustainability of services;
- Promoting local autonomy in the setting of tariffs by promoting cross-subsidies from more privileged sectors and neighbourhoods to subsidize the poorest sectors;
- Creating finance mechanisms that provide leverage to improve access to credit and capital for investment in basic services, facilitating public-private partnerships.

### ***Improving the professional and technical capacity of local governments***

Local governments need to develop their capacity to improve the provision of basic services by:

- Promoting specialized programmes with the aim of: improving the efficiency of municipal management or public utilities; providing services that apply modern systems of administration and oversight; and professionalizing staff;
- Improving access to innovative technologies and good practices to promote a more efficient use of resources to rationalize the use of water, improve the collection and treatment of sewage, reduce pollution and optimize energy consumption;
- Promoting the exchange of experiences of models of administration that reduce the risks of monopolies and encourage dynamic and effective management of basic services, guaranteeing access and improved quality of services for all sectors of the population; monitoring the management of services with precise indicators and constant civic accountability;
- Promoting the use of local labour and supporting informal sectors in the management of services, for instance in the selective collection and recycling of waste, as many cities in the region are

already doing; promoting a legal framework of service management to encourage cooperation with community and informal sectors;

- Developing more comprehensive planning of basic services within the framework of strategic urban planning, with the goal of reducing urban sprawl and promoting social-spatial inclusion;
- National associations of municipalities, in collaboration with national or specialized institutions, should promote the exchange of innovative experiences between local governments and businesses in areas such as: improvement of management, planning, and the use of adapted technologies. They should promote the development of systems of indicators for basic services to make it possible to improve monitoring of the functioning of public or private local services by municipal authorities with civic participation.

### ***Social and civic participation***

Greater civic empowerment requires:

- Consolidating legislation to encourage civil society organizations, facilitating their legalization and public financing and providing for specific consultations and oversight of services;
- Facilitating and simplifying the demands of citizens with timely and accurate replies through one-stop shops and a role for ombudsmen;
- Favouring systems of monitoring of citizens' opinion about the quality of services that are run jointly by community organizations and civil society;
- Promoting experiences to favour participation in participatory budgeting, participatory planning and referendums;
- Contributing to the struggle against corruption through a system of well-founded reports by citizens' organizations and prompt resolutions.





Photo: Guillen Pérez



# VII. MIDDLE EAST AND WEST ASIA



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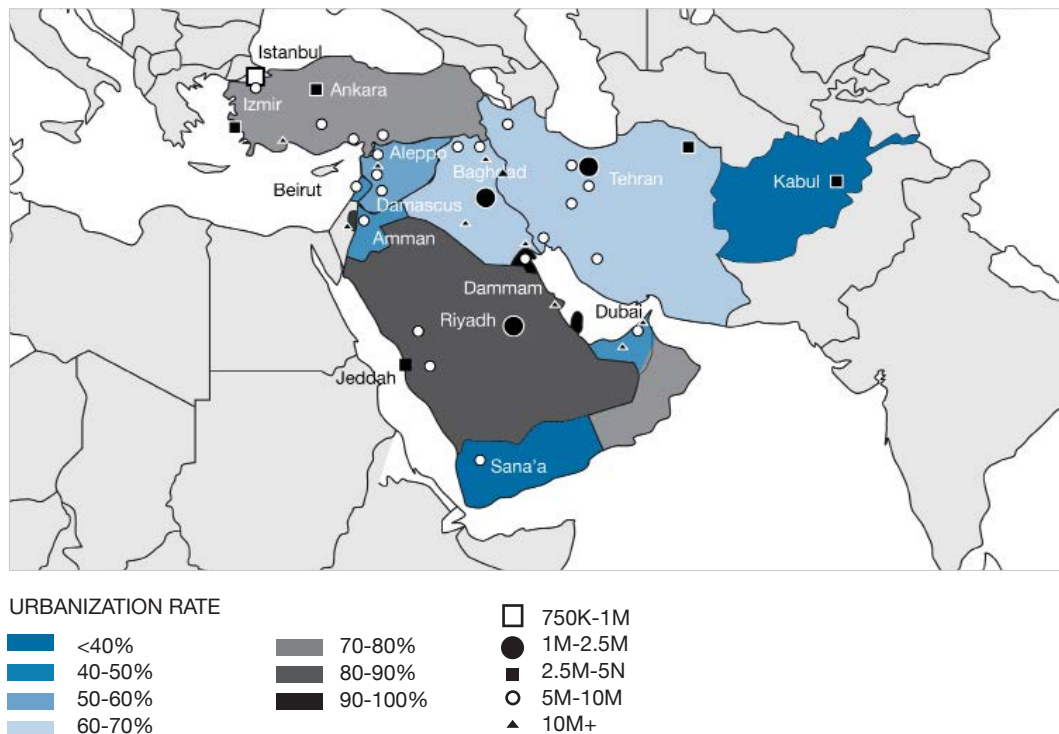
## 7.1 Introduction: the pressures of urbanization<sup>1</sup>

### A legacy of centralization

The countries in the Middle East and West Asia (MEWA) region share common historical and cultural traditions strongly influenced by colonization during the 19<sup>th</sup> and early 20<sup>th</sup> centuries (Figure 7.1). A legacy of centralized and multi-tiered administration has remained solidly entrenched in the area, influencing the management of cities and the systems of governance to this day. Geography and economics have carved it into three sharply contrasting sub-regions: the Eastern Mediterranean Region, which is part of the Near East; the Middle East, extending into West Asia; and the Gulf Cooperation Council (GCC) area.

<sup>1</sup> Information in this section (including any region-wide averages) refers to the chapter's focus countries of Turkey, Syria, Lebanon, Palestine, Jordan, Iraq, Iran, Saudi Arabia, and Yemen, as well as the non-focus countries of Afghanistan, Oman, Bahrain, Kuwait, Qatar, and the United Arab Emirates (U.A.E.), depending on the availability of data.

**Figure 7.1 MEWA sub-regions - urbanization rates and size of largest urban centres**



Source: United Nations (2012).

Governments have generally been unable to keep up with population growth and urbanization, and urban unemployment has generally risen with the liberalization of the economy and the retrenchment of public expenditures. While the discovery of oil in the 20<sup>th</sup> century has given Iraq and Iran substantial wealth and the development of an industrial base and remittances from expatriate workers in Western Europe has provided Turkey with a steady flow of foreign currency that financed its rapid urbanization, Afghanistan, Jordan, Lebanon, Palestine, Syria and Yemen have limited economic resources.

Countries in the GCC area are among the most urbanized in the world, with over 80% of the population living in cities and towns. Oil wealth has allowed the countries to embark on ambitious development programmes and urban megaprojects to

create new cities rivalling Western models. The magnitude of the investments and the scale of works have siphoned labour from the MEWA region and from Asia and Africa. The GCC has become the main destination for international labour seeking jobs and higher wages. Today, expatriate workers, mostly from Asia, account for nearly 40% of the GCC's population. Yemen is an exception to its urbanized neighbours; geopolitically part of the Arabian Peninsula, its traditional agricultural base and the legacy of its ancient civilization are closer to those of Middle Eastern countries.

While the 2011 events of the 'Arab Spring' in Egypt and Tunisia gained international attention, many other MEWA countries are also experiencing wars, violence, and civil unrest and disturbances. At this time, Iraq's recovery from three decades of devastating wars is slowed by continuing civil unrest



**Countries in the GCC area are among the most urbanized in the world, with over 80% of the population living in cities and towns.**



and violence, and by the growing economic gap between larger cities, small towns and rural areas. Afghanistan is still a war zone. The ongoing turmoil in Syria threatens to destabilize Lebanon. Yemen's recovery from civil strife is hindered by continued ethnic and religious conflicts and the strong tribal structure of society. Iran is contending with an economic downturn and high inflation due to international sanctions.

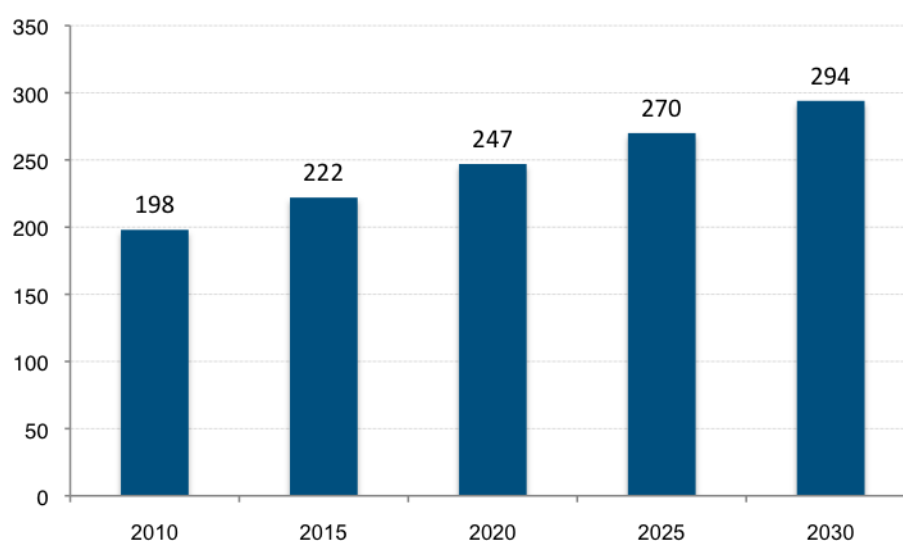
### The MEWA region today: young, geographically mobile and urban

The impact of demography and urban-rural migration on urbanization and the large number of yearly entrants into the labour force (driving forces behind the recent upheavals and calls for change in several countries in the region) have put severe pressures on MEWA governments to promote urban economic development and improve social inclusion. While governments – old and new – seek policy solutions to these pressures, the drivers of these dy-

namics will continue to affect the area for the long term.

MEWA's annual urban population growth rate of 2.6% is well above the world average of 1.97%. The projected national average yearly growth rates between 2011 and 2015 range from 0.86% (Lebanon) to 4.78% (Yemen) (Figure 7.2). Over 50% of the population is under the age of 25, and the working age population aged 15-25 accounts for 20% of the labour force. Migration is widely viewed throughout the region as the best avenue to improved employment and social advancement. Economic pressures and continued instability in the non-oil producing countries have also led to the massive out-migration of minorities, altering the ethnic and religious composition of the population in the countries affected by turmoil. Migration patterns are complex, related to culture and socio-economic class: middle and upper class migrants from Syria and Lebanon tend to look for work in Europe and francophone Canada, while members of lower income groups seek employment in the GCC.

**Figure 7.2 Urban population projections, 2010 – 2030**



Source: United Nations (2012).

The dynamics of the land and real estate markets have led to wasteful sprawl around larger cities as large-scale public and private projects leapfrog over urbanizing villages and fringe settlements, creating a patchwork of gated communities, speculative holdings of vacant and potentially serviceable land, and informal urbanization. These factors have led to the emergence of unstructured metropolitan urban regions anchored by the larger urban centres in Syria (Damascus and Aleppo), Lebanon (Beirut

and Tripoli), Jordan (Amman), Saudi Arabia (Jeddah and Dammam), Turkey (Istanbul), Iran (Tehran), and Iraq (Baghdad), among others (Table 7.1).

Despite progress in providing affordable housing, the slum population as a percentage of the urban population is still as high as 52.8% in Iraq due to the destruction of basic infrastructure and buildings during the 2003 war, and will likely increase in Syria after the conflict subsides. In Turkey, it has been reduced to 13%.

**Table 7.1 Numbers of slum dwellers and their proportion in the urban population**

|                     | 2005                                     |                                | 2007                                     |                                | 2009                                     |                                |
|---------------------|--|--------------------------------|--|--------------------------------|--|--------------------------------|
|                     | Slum population as % of urban population | Slum population in urban areas | Slum population as % of urban population | Slum population in urban areas | Slum population as % of urban population | Slum population in urban areas |
| <b>Iraq</b>         | 52.8%                                    | 9,974,451                      | 52.8%                                    | 10,360,858                     | 52.8%                                    | 10,759,222                     |
| <b>Jordan</b>       | 15.8%                                    | 688,647                        | 17.7%                                    | 823,956                        | 19.6%                                    | 971,362                        |
| <b>Lebanon</b>      | 53.1%                                    | 1,876,925                      | N/A                                      | N/A                            | N/A                                      | N/A                            |
| <b>Saudi Arabia</b> | 18%                                      | 3,441,673                      | N/A                                      | N/A                            | N/A                                      | N/A                            |
| <b>Syria</b>        | 10.5%                                    | 1,079,830                      | 22.5%                                    | 2,516,211                      | N/A                                      | N/A                            |
| <b>Turkey</b>       | 15.5%                                    | 7,422,300                      | 14.1%                                    | 7,021,518                      | 13%                                      | 6,727,613                      |
| <b>Yemen</b>        | 67.2%                                    | 4,088,020                      | 76.8%                                    | 5,140,423                      | N/A                                      | N/A                            |

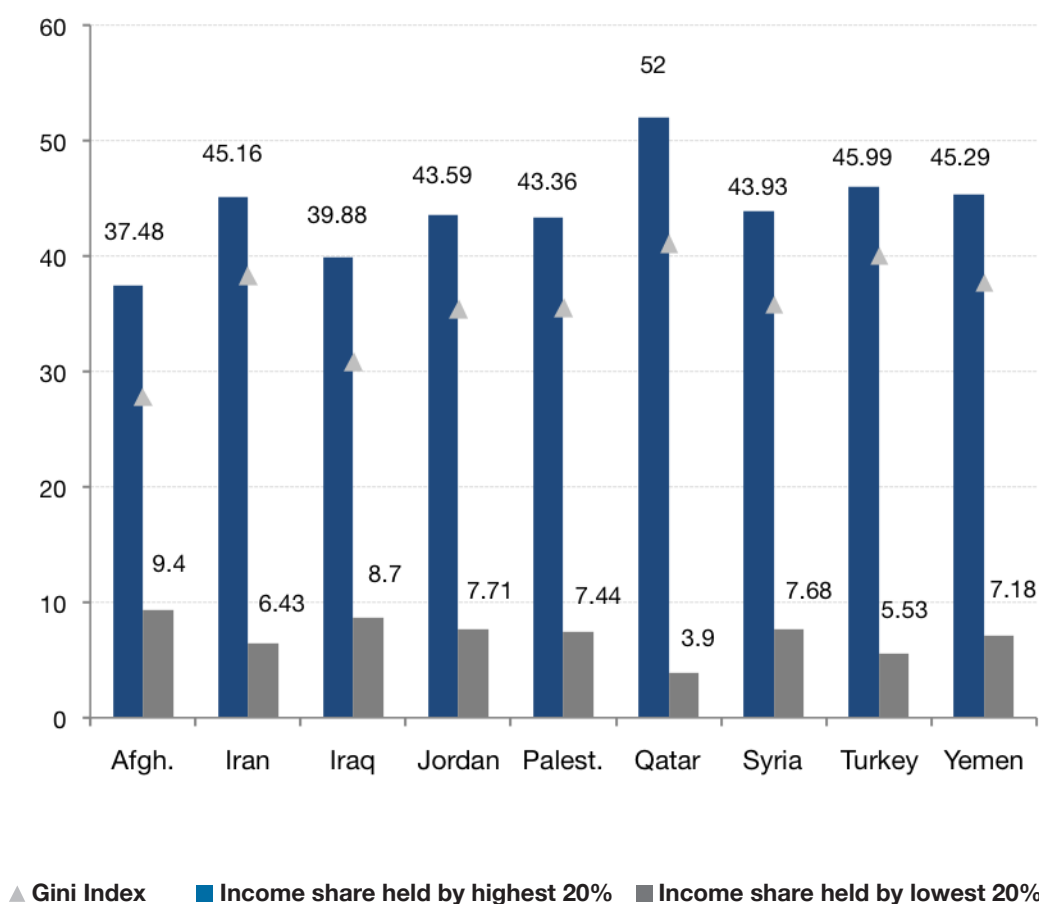
Source: UN-DESA Millennium Development Goals Indicators, <http://mdgs.un.org/unsd/mdg/Data.aspx>

Indicators show a widening of income inequalities in the region since the 1980s (Figure 7.3). Currently, the top 20% of the population receive between 35% and 50% of the national income in every country for which there is recent data, while the bottom 20% receive less than 10%. While not unlike elsewhere in the world, this disparity is felt by people in their daily life. It not only shatters young people's expectations, but widening disparities aggravate the per-

ception of widespread corruption, injustice, and social exclusion, three key drivers fueling civil unrest.

Not all migration in the region is economic or voluntary. Since the 1950s there have been four Arab-Israeli wars, the 10-year-long Iraq-Iran war, the two Gulf Wars (1990 and 2003), civil wars in Lebanon and Syria, and on-going conflicts in the West Bank and Gaza. These conflicts have led to massive numbers of refugees and Internally

**Figure 7.3 Income inequality in the MEWA region**



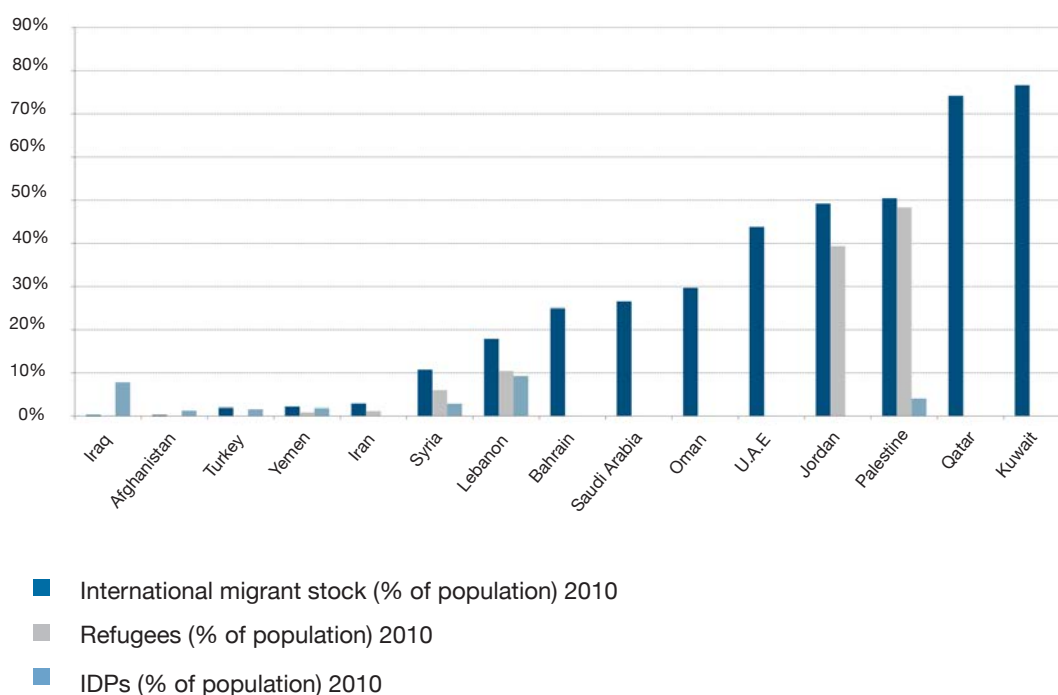
Source: World Bank (2002-2011), <http://data.worldbank.org/indicator>

Displaced Persons (IDPs). In 2011, refugees in MEWA made up over 7 million of the 27 million international migrants in the region. These numbers represent 2.2% and 8.6% of the region's population, respectively (Figure 7.4).

Furthermore, with wars and conflicts consuming energies and resources, the urban sector suffers from serious underfunding, and the backlogs in infrastructure and public facilities have consistently become a

cause of serious concern in most countries, with the exception of the GCC and Turkey. The civil unrest which began in 2011 will hamper local economic growth as investments are being delayed until the political situation stabilizes. In addition, the European economic downturn has been felt in the Middle Eastern economies through a reduced demand for exports and a decline in opportunities for migration to the EU.

**Figure 7.4 Migrants and refugees as a percentage of the population**



Source: World Bank figures, <http://data.worldbank.org/indicator>



Photo: The return of the spiceymexrice

## 7.2 Institutional framework

### Decentralization and administrative organization<sup>2</sup>

Since the 1970s, governance in MEWA has evolved slowly, with reforms ranging from deconcentration to delegation and devolution, depending on the countries and the institutions concerned. A lack of coordination in the changes in laws and regulations has resulted in imbalances in competencies, responsibilities and resources at the different levels of governance. The degree to which MEWA countries will pursue full decentralization of local authorities is unclear at this time. Most governments are seeking modest changes to appease restive young populations. A few wish to retain a greater degree of central control while introducing minor changes in the legal frameworks.

A common feature of governance in MEWA is three levels of government (governorates, districts, and municipalities) that provide services to urban areas, and two levels (governorates and villages) in rural areas. The following section discusses the status of the different levels of governance, from central government ministries to municipal councils.<sup>3</sup>



**The degree to which MEWA countries will pursue full decentralization of local authorities is unclear.**

<sup>2</sup> Further detail on decentralization trends in the region can be found in the GOLD I and GOLD II reports, UCLG (2008); UCLG (2010).

<sup>3</sup> For more detail, see Annex 7.1 of Gold III.



Turkey is divided into 81 provinces, with elected provincial councils headed by appointed governors. There are three levels of local authorities, based on population size, with elected councils and council executives:

- *Metropolitan municipalities*, of which there are currently 30, are divided into “first grade” and “district” municipalities;
- *Municipalities* for urban population centres;
- *Villages*, the smallest government units, operate in rural areas, often receiving services from provincial administrations.

Within the metropolitan municipalities, the municipalities provide potable water, sewage systems, storm drains, solid waste management and public transportation.

Jordan is divided into 12 governorates, whose governors are appointed by the Minister of the Interior.<sup>4</sup> Each governorate is divided into districts and sub-districts. Municipal councils and their executives are elected, except in Greater Amman whose mayor and half the municipal council are appointed by the Cabinet.<sup>5</sup> Municipalities are financially independent but work in close cooperation with the Ministry of Municipal Affairs to conduct planning activities, maintain streets, collect solid waste, issue building permits, and set local tariffs and taxes.<sup>6</sup> Women are guaranteed 20% of the seats on municipal councils,<sup>7</sup> compared to 15 of the 108 seats in the House of Representatives.

Lebanon is divided into six governorates that are further divided into 26 districts, except for Beirut. They are overseen by the Ministry of Interior and Municipalities and their governors are appointed by the Council of Ministers. Municipalities have elected municipal councils that elect their presidents and vice-presidents. In Beirut, the municipal council is headed by the governor. Lebanese municipalities have jurisdiction over works with a “public character,” including transportation, road construction and drainage, water, sewerage, and energy

projects. Municipalities are allowed to form municipal unions to “consolidate their capacities”; they are managed by an executive authority that includes the heads of the constituent municipal councils.<sup>8</sup>

Palestine’s special situation and history have resulted in a unique geographic and administrative organization. Gaza is governed as a single sub-entity of the Palestinian state, and the West Bank is divided into three areas: in Area A, the Palestinian National Authority is in charge of security and civilian affairs; in Area B, the PNA controls civilian affairs while Israel controls security; and in Area C, Israel controls both civilian and security affairs. This spatial configuration has led to a higher autonomy of municipal authority than elsewhere in the region. The 14 regional governorates are directed by governors appointed by the Ministry of the Interior. They are responsible for the police and public services, including health, education, and transportation. At the local level, there are municipal councils and village councils. The 1997 Law on Local Government stipulates that these elected councils prepare town plans, issue construction permits, and provide water and power.<sup>9</sup> The 2005 Election Law provides a 20% quota for women.

Saudi Arabia is divided into 13 regions, headed by an “emir” appointed by the King. They are managed by regional councils consisting of the local heads of sectorial ministries and other government agencies, and ten appointed citizens and local civic leaders. Below the regions are governorates, districts, and municipalities. There are also six directorates for water and sewerage provision. Mayors are appointed by the king, and half of municipal councils are appointed by the central government while the other half are elected. The autonomy of municipalities is restricted to issuing building and business permits, ensuring food safety and public health, maintaining parks and public spaces, solid waste management and street lighting.<sup>10</sup> Their ability to control

<sup>4</sup> ACE International Consultants (2011), p. 33.

<sup>5</sup> Ibid, p. 33.

<sup>6</sup> Ibid, p. 69.

<sup>7</sup> Ibid, p. 71.

<sup>8</sup> Decree-law no. 118 (1977) as amended, “Municipal Act”.

<sup>9</sup> Ibid, p. 69.

land development is limited. The two Holy Cities, Makkah and Medina, have a special city authority as does Riyadh, the capital.

Syria consists of 14 provinces headed by governors appointed by the Ministry of Interior. Within provinces are districts, counties, cities, and villages. All these units of local governance have publicly elected councils that choose their own executives in accordance with the new National Law on Local Administration. While Syria remains highly centralized, policies prior to the start of the current conflict sought to strengthen local governance. Local authorities are responsible for urban planning, basic construction works, economic development, solid waste collection, and managing sewage systems. Women may hold seats on local councils, including the mayoralty. As of 2011, they accounted for 31 out of 250 seats (12%) in the lower house of parliament.<sup>11</sup>

Iran is divided into 30 provinces, each headed by a governor appointed by the central government. Provinces are divided into districts, cities, and villages. Citizens elect city and village councils; city councils in turn elect the mayor. Women are eligible to run at the local level.

There are 20 governorates in Yemen, each headed by a governor. Governors were formerly appointed by the president but, as of 2008, are elected by the elected governorate council. There are 333 districts in the governorates, with directly elected local councils. The city of Sana'a has its own special administration. Article 146 of the 2008 Local Authority Law specifies that local authorities may propose plans, investment programmes and budgets, and supervise and monitor all local institutions.<sup>12</sup> Women are allowed to hold seats in both houses of Parliament.

Iraq has a complex federal governance system that is not yet fully implemented, as ambiguities in the legal texts have not been clarified by executive regulations. It

is divided into 18 governorates, with three of the governorates – Arbil, Sulaimaniyah, and Dohuk – recognized by Article 117 of the Constitution as forming the Kurdistan Regional Government (KRG), a semi-autonomous entity with its own constitution, parliament, and ministries. The 2008 Law 21 applies to all governorates outside of the KRG and stipulates the procedures for the election of elected councils at the governorate, district, and sub-district level. City councils are also elected and, in turn, elect their own executives.<sup>13</sup> Although drafted to decentralize the provision of public services, Law 21 has yet to be fully implemented and the roles of municipalities remain ambiguous as the management of such basic services as water, electricity, and sanitation remain under the deconcentrated offices of central ministries. Twenty-five percent of parliamentary seats are reserved for women; no quotas exist for governorate or local council elections.

### Central/local responsibilities and role of utilities

MEWA central governments assume sole responsibility for the planning and management of the region's *scarce water resources* with a view to balancing competing needs. Because of their scale and cost, major water projects are also undertaken by central agencies, and the responsibilities of local water utilities is usually limited to the operation and maintenance of the infrastructure in place (Table 7.2). Institutional arrangements between central governments, municipalities, and utilities vary. As a result of a lack of coordination between central and local authorities, densifying settlements remain unserved, while neighbouring, partially developed projects are provided with services. The anticipated impacts of climate change are making it mandatory to pay greater attention to rationalizing water use and conserving water resources.



**The anticipated impacts of climate change are making it mandatory to pay greater attention to rationalizing water use and conserving water resources.**

<sup>10</sup> UN Habitat (2012), p. 161.

<sup>11</sup> UNICEF (2011).

<sup>12</sup> Human Rights Information and Training Center (2008), p. 18-19.

<sup>13</sup> RTI International (2011).

**Table 7.2 Primary water service delivery responsibilities in selected countries**

|                                      | Iran | Jordan | Lebanon | Palestine | Syria | Turkey | Yemen |
|--------------------------------------|------|--------|---------|-----------|-------|--------|-------|
| Central-Level Water Utility          |      | X      | X       | X         | X     |        |       |
| Provincial Authority                 | X    | X      |         |           |       | X      | X     |
| Local Government/Local Water Utility | X    |        |         | X         |       | X      | X     |

Source: Institute for International Urban Development, <http://www.i2ud.org>

The *wastewater* sector is also centralized and, in most countries, the same central government ministry develops plans, formulates policy and oversees the performance of both the water and wastewater sectors. *Solid waste management*, by contrast, is decentralized throughout the

region, with responsibilities for collection and disposal at the municipal and provincial levels, and the role of central ministries limited to overseeing the financing of new solid waste facilities and the environmental and health standards for solid waste handling and storage (Table 7.3).

**Table 7.3 Provision of solid waste collection (C) and disposal (D)**

|                          | Jordan |    | Lebanon |   | Palestine |   | Syria |   | Turkey |   | Yemen |   |
|--------------------------|--------|----|---------|---|-----------|---|-------|---|--------|---|-------|---|
| Central Government       |        |    |         |   |           |   |       |   |        |   |       |   |
| Special Public Authority |        | D  | C       | D | C         | D |       |   |        |   |       |   |
| Municipality             | C      | D* | C       | D | C         | D | C     | D | C      | D | C     | D |
| Private Company          |        | D  | C       | D | C         |   |       |   |        |   |       |   |

\*In Jordan, only the Greater Amman Municipality operates its own landfill

Source: Institute for International Urban Development. <http://www.i2ud.org>

*Transportation* is a shared responsibility of municipalities and the central government. National and regional roads are the responsibility of central and provincial governments while the maintenance and expansion of local roads are delegated to the municipalities. The regulation of urban public transport, consisting mainly of private sector buses and mini-buses, is the responsibility of the municipality or governorate. Although new public transportation systems aim to decrease energy consumption and greenhouse gas emissions, the centralization of transport policy and oversight have limited options for municipal participation in decisions regarding the design of systems, with the possible exception of the capital cities.

Jordan's Ministry of Water and Irrigation (MWI) oversees utilities, formulates policy, prepares plans and sets investment priorities.<sup>14</sup> The Jordan Valley Authority manages all water resources between the Yarmouk River and the Red Sea, while the Water Authority works with municipalities to provide drinking water and wastewater services to 14 of the largest urban centres. Both authorities are overseen by the MWI. The Ministry of the Environment is responsible for setting standards and the planning and siting of landfills,<sup>15</sup> while municipalities (or contracted private sector companies) collect municipal waste. There are 21 landfills in the country, each one serving several municipalities; each is operated by a Common Services Council overseen by the municipalities and the Ministry of the Environment. Greater Amman municipality operates the largest landfill in Jordan. The Ministry of Transport prepares general transport policy and oversees its implementation. The Land Transport Regulatory Commission is an administratively and financially autonomous regulatory branch of the Ministry responsible for planning the land transport service network, including routes and facilities.<sup>16</sup>

Iran's Ministry of Energy coordinates water policies. The Ministry of Health and Medical Education sets water quality standards. Drinking water and wastewater services are provided by 15 regional water and wastewater companies. Each province has two of these companies, one responsible for providing water and wastewater services in urban areas and the other in rural areas. The Ministry of Transport and Housing oversees roadways, airways, railways, and seaways, while municipalities oversee streets, squares and pedestrian passageways.<sup>17</sup> Since 2006, municipalities have had responsibility over passenger and freight management within cities and suburbs, including overseeing private operators.

Iraq's Ministry of Water Resources manages the water sector, controls all major trunk infrastructure, and is responsible for the improvement and rehabilitation of damages incurred during the 2003 United States-led invasion.<sup>18</sup> Field offices of the Ministry of Municipalities and Public Works provide water and sewerage services to 252 municipalities in all governorates except for those of the Kurdistan Regional Government. The remaining three governorates are serviced by the Kurdistan Regional Government.<sup>19</sup> The provision of solid waste services is also overseen by the Ministry.<sup>20</sup> Municipalities provide the service within their jurisdictional boundaries, and the Ministry is responsible for areas and villages outside of municipal boundaries. The lack of a regulatory framework has resulted in wide variability in performance efficiency among municipalities. The destruction of infrastructure during the wars led to the emergence of informal collection and disposal without proper environmental precautions. In 2007, a National Solid Waste Management Plan was developed to decentralize fiscal and administrative powers, but the degree to which it is being implemented is unclear. Highways, roads and bridges outside

<sup>14</sup> International Resources Group (2010), p. 8-9.

<sup>15</sup> Momani (2010), p. 338-343.

<sup>16</sup> Land Transport Regulatory Commission, [http://images.jordan.gov.jo/wps/wcm/connect/gov/eGov/Government+Ministries+\\_+Entities/Public+Transport+Regulatory+Commission/General+Information/](http://images.jordan.gov.jo/wps/wcm/connect/gov/eGov/Government+Ministries+_+Entities/Public+Transport+Regulatory+Commission/General+Information/)

<sup>17</sup> 1955 Law of Municipalities.

<sup>18</sup> Ministry of Municipalities and Public Works, <http://www.mmpw.gov.iq/PageViewer.aspx?id=56>

<sup>19</sup> Ministry of Planning, Kurdistan (2012).

<sup>20</sup> Amended Municipal Administration Law 165 of 1964.

municipalities are the responsibility of the Ministry of Construction and Housing, while the planning and management of transport networks are the responsibility of the Ministry of Transport. There are 13 state-owned enterprises that manage domestic and international transport.<sup>21</sup>

Turkey's Ministry of Environment and Urban Planning sets policies on the management of water resources; its General Directorate of State Hydraulics Works develops water resources and plans new water resource projects with concerned ministries, such as the Ministry of Forestry and Water. The Ministry of Health sets drinking water standards. Law No. 5393 states that Turkish municipalities are responsible for providing "potable water within the municipal areas," and the same responsibility is shifted to the Metropolitan level when urban growth in adjoining municipalities creates a contiguous urbanized fabric rendering consolidation the most efficient service delivery system. While wastewater treatment plants are co-financed by the central government, municipalities are responsible for their operation and maintenance. In rural areas, provincial administrations are responsible for wastewater disposal.

Turkey's solid waste management principles and criteria seek to align with European Union standards, and have been adopted in the National Waste Management Plan for 2009-2013.<sup>22</sup> Policymaking is the responsibility of the Ministry of Environment and Urban Planning and it also oversees municipal activities jointly with the Ministry of Internal Affairs. Under the Municipal Laws of 2004 and 2005, municipalities are charged with the collection and disposal of solid waste,<sup>23</sup> including transfer stations and landfills. Municipalities are empowered to contract these responsibilities to the private sector.

The Municipality Act assigns municipalities responsibility for public transportation

within designated areas, including the licensing of private companies. Metropolitan municipalities have broader powers, including the construction and maintenance of main roads, and the operating of public transportation within metropolitan borders.

Lebanon's Ministry of Water and Energy formulates water sector policy formulation and controls publicly funded water and wastewater projects, while the Council for Development and Reconciliation is in charge of projects that are financed primarily by outside donors.<sup>24</sup> The Municipal Act outlines the role of the municipalities in water service provision, including participating in the selection and implementation of water projects. However, the main potable water providers are the four provincial-level Regional Water Authorities, which rely on contract workers to perform operations and maintenance.<sup>25</sup>

Municipalities and municipal federations are responsible for solid waste collection, treatment and disposal, including constructing landfills.<sup>26</sup> The Ministry of the Environment's Department of Urban Environmental Pollution Control is charged with setting environmental standards and overseeing solid waste management. Beirut's solid waste management has been outsourced to a private company since 1997.

Public transportation is the responsibility of the Ministry of Public Works and Transport's directorates for urban planning and rail, and public and maritime transit. The Directorate General for Urban Planning (DGUP) prepares and reviews all urban master plans, except for Beirut and Tripoli. Since 2009, municipal councils are responsible for road construction and improvements and for regulating all forms of public transportation, including determining tariffs.

In Palestine, the National Water Committee – a twelve-member body chaired by the president that includes non-governmental organizations – formulates policy; the

<sup>21</sup> Republic of Iraq National Investment Commission, <http://www.investpromo.gov.iq/index.php?id=71>

<sup>22</sup> Bakas and Milios (2013).

<sup>23</sup> Bakas and Milios (2013), p. 5.

<sup>24</sup> Akkaya et al (2009), p. 7-8.

<sup>25</sup> Ibid.

<sup>26</sup> Legislative-Decree 118 (1977)



Palestinian Water Authority is responsible for water resource planning in conjunction with municipal and private sector suppliers. Local water utilities also collect and treat wastewater. Gaza's municipal water departments are being consolidated into a single Coastal Municipalities Water Utility. Municipalities and village councils collect and dispose of solid waste and can establish Joint Services Councils to provide services over larger areas; the Ministry of Local Government oversees their performance. The Ministry of Planning and Development is responsible for siting landfills. As a result of the scarcity of local technical and financial resources, Palestine's National Strategy for Solid Waste Management seeks to increase private sector participation. The Ministry of Transport regulates both public and private transportation, and oversees licensing and vehicle registration.<sup>27</sup> Its Higher Council of Traffic is responsible for developing policy, coordinating the implementation of traffic plans among respective government entities, and setting up local traffic committees.

Provision of drinking water in Yemen has been undergoing a process of decentralization since the late 1990s with support from the World Bank and GTZ. The responsibilities of the National Water Authority are being transferred to increasingly autonomous local authorities that plan investments and can set tariffs at rates that reflect local realities; some also provide wastewater collection and treatment. The Environmental Protection Authority sets and enforces water quality standards while the Ministry of Water and Environment – established in 2003 as part of efforts to rationalize the management of scarce water resources – oversees local utilities and provides financial support. The central National Water and Sanitation Agency still provides water for smaller towns where local utility corporations have not yet been set up. As part of the decentralization process, solid waste

management services were transferred from the Ministry of Public Works and Highways to the local authorities. Sectorial plans and policies are set by the Ministry of Local Administration's General Directorate for Solid Waste Management and pollution control standards are set by the Environmental Protection Authority.

In Syria, local authorities are responsible for collecting solid waste and operating landfills, responsibilities that are often contracted to the private sector. The Ministry of Local Administration sets solid waste management policy and drafts legislation regulating the sector and its General Commission for Environmental Affairs oversees environmental standards. Solid Waste Management Directorates have been created in each city (except Damascus) to coordinate public investments and oversee municipal performance in the sector; although in principle under the authority of the regional governor, their decisions have to be approved by the Ministry. Until 2012, water and sewerage were provided by agencies at the governorate level under the Ministry of Irrigation; Law 44 of 2012 transferred these agencies to a newly created Ministry of Water Resources. The *Draft Law on Local Administration*, as part of its effort to promote decentralization, devolved the responsibility for regional public transport to the Governorate Councils.<sup>28</sup> The ongoing turmoil makes it difficult to ascertain the extent to which governorate administrations are able to undertake these functions.

Saudi Arabia's Ministry of Water and Electricity prepares the national water plan, regulates the water sector, and approves well drilling and dam construction projects. The Ministry of Transport executes and monitors all transport-related affairs, including setting fares and coordinating non-air transportation with national economic development plans. Local governments organize urban public transportation with oversight by a national committee consisting of central government

<sup>27</sup> Traffic Law No. 5 of 2000.

<sup>28</sup> Draft Law Local Administration, June 2008 Municipal Administration Modernisation Project (MED/2004/6264: Europe Aid/119822/SV/SY).



**Since 2000, there has been a trend towards partnering with private sector for the operation and maintenance of sewerage treatment plants.**

institutions and municipal representatives. Public transportation may be contracted to private entities for 15-year renewable periods; the private entity must be majority Saudi-owned. The Saudi Company for Group Transport provides public transportation in ten major cities, and there are also several private urban transportation companies.

Since 2000, there has been a trend towards partnering with private sector for the operation and maintenance of sewerage treatment plants. In Jordan, the government relies on the private sector to treat wastewater: the best example is the As-Samra wastewater treatment plant that

serves approximately 45% of the population. The 530,000 m<sup>3</sup>/day plant was built in the early 2000s under a 25-year Build-Operate-Transfer contract with French and U.S. firms; 46% of the financing came from USAID. In Saudi Arabia, since 2008, foreign companies have won operation and maintenance contracts for water and wastewater works in Riyadh, Mecca, Taif, and Jubail. Yemen's National Water Sector Strategy and Investment Programme aims to reduce demand on overstressed local utilities by engaging the private sector to aid in urban sanitation projects.



Photo: Terra Chillan

## 7.3

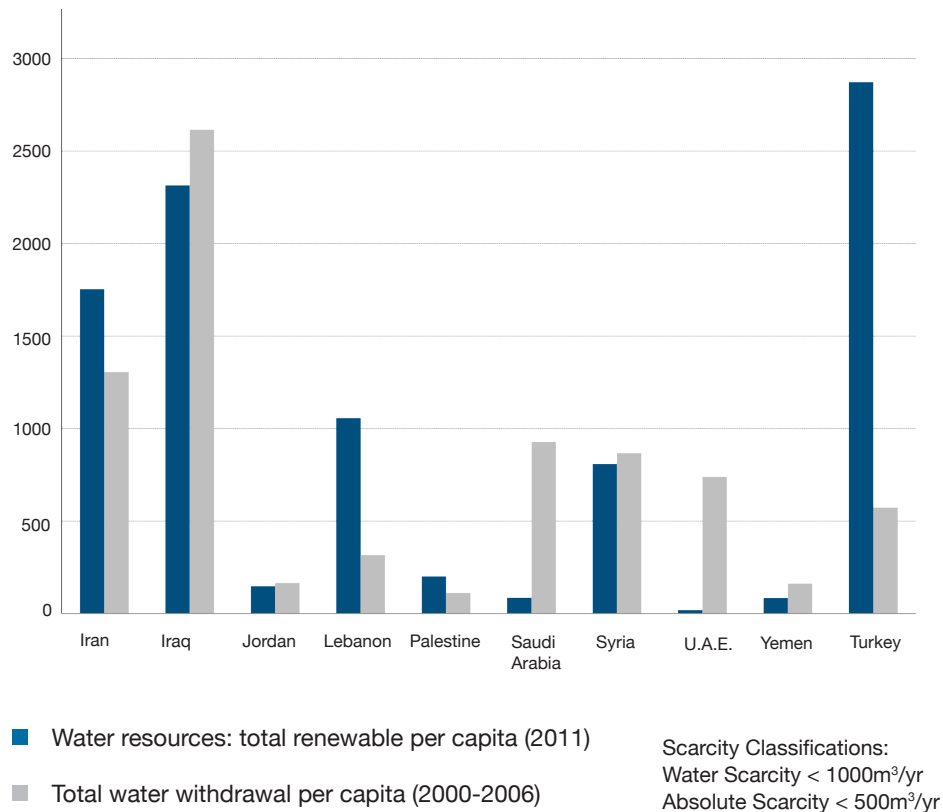
### Access to and quality of basic services

#### *Dwindling water supply*

In spite of a limited supply, all MEWA countries have reached the MDG 2015 target of reducing by half the population lacking access to improved water supplies (Figure 7.5). Household connection rates to publicly supplied water vary widely throughout the region, with access higher in cities than in rural areas. Although 80% of households in Lebanon are connected to public water, only 62% of households in the lowest income quintile are connected, compared to 86% of households in the highest quintile. In Iraq, the connection rate is 85.4% in urban areas and 62.8% in rural areas. In Jeddah, only 25% of households have a direct water connection, although the piped water distribution network covers 90% of the city's developed area. In Sana'a, 59% of households have public connections.<sup>29</sup>

Iranian aquifers are estimated to have declined by half a metre every year for the last 15 years. In 2010 all countries except Yemen had urban access rates above 90%; Yemen's low national rate of 55% reflects its settlement pattern of dispersed, remote villages. However, demand is depleting aquifers faster than their natural recharge capacity.

<sup>29</sup> UN Habitat (2012), p. 201.

**Figure 7.5 Water consumption in the MEWA region**

**Source:** FAO Aquastat, <http://www.fao.org/nr/aquastat>

Sana'a's main aquifer drops six to eight metres each year and is predicted to be depleted within 10 to 15 years.<sup>30</sup>

Given the region's dwindling water resources and growing demand, desalinated seawater has become an increasingly important source. Saudi Arabia leads the world in desalinated water production, with the 27 desalination plants of its national Saline Water Conversion Corporation producing 3 million cubic metres of water per day and providing more than 70% of the country's urban drinking water; in 2010, Iraq had 160 reverse osmosis desalination plants. Palestine is currently trying to get funding to build a desalination plant to relieve pressure

on Gaza's troubled coastal aquifer. In 2012, Iran announced a USD 1 billion desalination plant project on the Caspian Sea to supply the city of Semnan 150 km away. Jordan's 2008-2022 Water Strategy aims to increase the amount of desalinated water in the drinking supply from 10 million cubic metres (or 1% of total supply) to 500 million cubic metres (or 31% of the supply) by 2022.

Another source of usable water is treated wastewater, which can be used for irrigation or domestic use. Reuse rates in MEWA countries range from less than 50% of treated wastewater in Lebanon, to 80% in Jordan and 100% in Syria. The Coastal Municipalities Water Unit in Gaza is planning



**As water demand outstrips supply, many cities in the region ration delivery, and private water suppliers or natural sources cover the gaps in public supply.**

<sup>30</sup> UN Habitat (2012), p. 199.

to expand the use of treated wastewater in agriculture; at present, 78% of wastewater is discharged into the sea.

As water demand outstrips supply, many cities in the region ration delivery and private water suppliers or natural sources cover the gaps in public supply. In Greater Amman, supply has been limited to one or two days a week since 1987 and the water pressure is often low. Due to electricity shortages and a turbulent political climate, Aden residents received water for only 15 hours daily in 2011; Sana'a residents had water only 48 hours per month; and Taiz residents received water for only 40–50 days during the whole year. In Lebanon, irregularity of public water supply is true at all income levels, and private sources of water account for 75% of household water expenditures and Beirut receives water for an average of three hours per day in the summer and 13 hours per day in the winter. In Saudi Arabia, 4,060 villages and hamlets rely on water tankers.<sup>31</sup> In Iraq, the public water system serves only 9% of the poor and 13% of the non-poor and most households supplement their supply from secondary sources. In Gaza, water utilities have had to import water, and the extra expense adds to the hardships endured by the population.

Water loss rates due to leaks and illegal connections are high throughout the region, amounting to 40% in Lebanon, Gaza and Yemen; comparable figures in Europe and the United States range from 7 to 20%. Non-revenue water loss is 40% in Jordan and 43% in Turkey.

### **Sanitation**

As of 2010, Iran, Lebanon, and Saudi Arabia had nearly achieved 100% national and urban access rates to improved sanitation facilities; only 23% of Yemen's urban population had access to improved sanitation, far short of its MDG target of 33%. Connections to piped sewerage networks

are significantly lower than access to improved sanitation, as is the case in most of the developing world. Even in serviced areas, wastewater may not be treated due to failures in the collection network or treatment plants. Despite the existence of effluent quality standards in most countries, a paucity of wastewater treatment plants and limited connections means that grey- and black-water is often discharged either without undergoing any treatment or without meeting national standards.

Gaza has sanitation service coverage of 71%, with 75–80% of effluent being treated. In Iran, 45% of the population was served by wastewater collection in 2010 but only 75% of the effluent was treated. In Yemen, about 40% of the residents of Sana'a are connected to the sewerage system while the remainder rely on cesspits and septic tanks. In Jordan, an estimated 62% of the population was served by sewerage systems in 2008. Lebanon's urban sewerage networks are aging and have been damaged by years of conflict and much of the effluent is being discharged as raw sewage. In Iraq, an estimated 80% of collected wastewater is not treated due to irregular supply of chemicals and frequent power blackouts. In Saudi Arabia, 43% of urban dwellers have access to sewerage but only 25% of the sewage is treated. Nationally, only 8% of wastewater is fully treated (Table 7.4).

### **Solid waste management**

Although solid waste collection coverage rates in MEWA are generally high there are notable urban-rural differences in the quality and regularity of collection services, with the exception of Turkey, where municipal waste management services cover 83% of the entire population and 99% of the urban population (Table 7.5). In Palestine and Jordan, municipal solid waste collection currently covers about 90% of the population, although coverage and quality of services vary. In Iraq, 96.7% of municipalities have



**Despite the existence of effluent quality standards, grey- and black-water is often discharged either without undergoing any treatment or without meeting national standards.**

<sup>31</sup> UN Habitat (2012), p. 164.





**Inadequate financing of municipal waste management services has resulted in incomplete collection coverage and the build-up of waste in streets, public spaces and water bodies.**

**Table 7.4 Millennium development goals indicators on sanitation**

| Proportion of the total population using improved sanitation facilities (%) |           |      |      |      | Proportion of the urban population using improved sanitation facilities (%) |      |      |      |
|---|-----------|------|------|------|---|------|------|------|
| Country   | 2008      | 2009 | 2010 | 2011 | Country   | 2008 | 2009 | 2010 |
| Iran  | 100       | 100  | 100  |      | Iran  | 100  | 100  | 100  |
| Iraq  | 73        | 73   | 73   |      | Iraq  | 76   | 76   | 76   |
| Jordan  | 98        | 98   | 98   |      | Jordan  | 98   | 98   | 98   |
| Lebanon   | 98 (2005) |      |      |      | Lebanon   | 100  | 100  | 100  |
| Saudi Arabia  |           |      |      |      | Saudi Arabia  | 100  | 100  | 100  |
| Syria   | 94        | 94   | 95   |      | Syria   | 96   | 96   | 96   |
| Turkey  | 90        | 90   | 90   |      | Turkey  | 97   | 97   | 97   |
| Palestine*  | 98        | 98   | 98   | 98.8 | Palestine   |      |      |      |
| Yemen*  | 32        | 23   | 23   | 23   | Yemen   |      |      |      |

Source: WHO Eastern Mediterranean Regional Health Observatory, <http://www.who.int/gho/en/>

equipment to collect and dispose of waste but still lack the capacity to provide full coverage. In Yemen, only 38% of municipal waste is collected and none of the few existing landfills are considered sanitary; open dumping areas are prevalent in many cities, including Sana'a.

Inadequate financing of municipal waste management services has resulted in incomplete collection coverage and the build-up of waste in streets, public spaces and water bodies. In some areas, landfills are either overwhelmed or non-existent, forcing municipalities to resort to open dumping.

Where there are standards for closed landfills in new developments, financing gaps have resulted in poor maintenance too. It should be noted that the informal sector in all MEWA countries is a major, yet unquantifiable, contributor to waste collection and disposal. In the absence of sorting stations, waste pickers typically operate in landfills, exposing themselves to health risks.

#### **Urban transport**

With the exception of Turkey, urban road construction has lagged behind urban

**Table 7.5 Municipal solid waste collection rates, urban and rural**

| Country           | Urban Collection Rate<br>(% of total urban pop.) | Rural Collection Rate<br>(% of total rural pop.) |
|-------------------|--|--|
| Iraq <sup>^</sup> | 91.3   | 7.5  |
| Jordan*           | 90   | 70   |
| Lebanon*          | 100  | 99   |
| Palestine*        | 100  | 80   |
| Syria*            | 90-100   | 60-90  |
| Yemen*            | 70   | 5  |

Sources: <http://www.sweep-net.org/?q=content/country-profiles>

growth throughout the region, leaving much of the population poorly connected to major employment centres (Table 7.6). In Iraq, few roads have been built since the 1980s, when the system was developed and, in 2007, over 60% of the population lived on unpaved roads. The road network in Lebanon consists of 22,000 km of roads, of which only 6,380 km are paved.

For the most part, congestion in major cities has reached unsustainable levels, increasing transport costs, and noise and air pollution. Congestion in the greater Beirut area and other major Lebanese cities and towns is estimated to cost USD 2 billion

annually. Although Turkey's improvements to the road network ultimately saved 1 million litres of fuel and 171 million travel hours between 2001 and 2011, a 2008 survey of businesses found that between 38% and 51% of companies considered transport an obstacle to doing business.<sup>32</sup> Jeddah Municipality estimates that idling cars on congested roads contributed 266 metric tons of CO<sub>2</sub> emissions each year.<sup>33</sup> Tehran is one of the few cities in the world that has implemented a congestion charge and has developed award-winning bus-rapid-transit and subway systems to help ease jams (Box 7.1).



**Congestion in major cities has reached unsustainable levels, increasing transport costs, and noise and air pollution.**

**Table 7.6 Selected national transport indicators**

| Country      | Motor vehicles (per 1,000 people) | Year | Passenger cars (per 1,000 people) | Year | Vehicles (per km of road) | Year | Roads, paved (% of total roads) | Year | Road sector gasoline fuel consumption per capita (kg of oil equivalent) | Year |
|--------------|-----------------------------------|------|-----------------------------------|------|---------------------------|------|---------------------------------|------|---|------|
| Afghanistan  | 28                                | 2010 | 20.1                              | 2010 | 11                        | 2006 | 29.3                            | 2006 |   |      |
| Bahrain      | 537                               | 2009 | 451.4                             | 2009 | 104                       | 2009 | 82.1                            | 2010 | 539.7   | 2010 |
| Iran         | 128                               | 2008 | 113                               | 2008 | 51                        | 2008 | 80.6                            | 2010 | 234.2   | 2010 |
| Iraq         |                                   |      | 27                                | 2006 | 55                        | 2006 |                                 |      | 163.3   | 2010 |
| Jordan       | 165                               | 2010 | 122.7                             | 2010 | 140.5                     | 2010 | 100                             | 2010 | 176.3   | 2010 |
| Kuwait       | 527.6                             | 2010 | 439.5                             | 2010 | 218.5                     | 2010 | 85                              | 2004 | 920.8   | 2010 |
| Lebanon      |                                   |      |                                   |      |                           |      |                                 |      | 377.3   | 2010 |
| Oman         | 215                               | 2007 |                                   |      | 12                        | 2007 | 46                              | 2009 | 671.4   | 2010 |
| Qatar        | 532                               | 2007 |                                   |      |                           |      |                                 |      | 634   | 2010 |
| Saudi Arabia |                                   |      | 139                               | 2005 | 20                        | 2006 | 21.5                            | 2005 | 646.4   | 2010 |
| Syria        | 73.5                              | 2010 | 36.3                              | 2010 | 21.5                      | 2010 | 90.3                            | 2010 | 88.1  | 2010 |
| Turkey       | 154.9                             | 2010 | 103.7                             | 2010 | 30.7                      | 2010 | 89.4                            | 2010 | 27.9  | 2010 |
| U.A.E.       | 313                               | 2007 | 293                               | 2007 | 271                       | 2004 | 100                             | 2010 | 530.4   | 2010 |
| Palestine    | 42.3                              | 2010 | 32.8                              | 2010 | 35.3                      | 2010 |                                 |      |   |      |
| Yemen        | 23                                | 2004 | 16                                | 2004 |                           |      | 8.7                             | 2005 | 68.7  | 2010 |

GCC countries highlighted in blue

Source: World Bank Indicators. <http://data.worldbank.org/indicator>

<sup>32</sup> Ministry of Development, Republic of Turkey (2012).

<sup>33</sup> UN Habitat (2012), p. 151.

Mass transportation in most MEWA countries consists of private minibuses and taxis and only large metropolitan areas have buses or light rail public transportation. Some cities operate or have planned subways, light rail transit, urban bus and bus rapid transit but, despite recent subsidies to public transport enterprises, supply continues to be inadequate. In Amman, 16% of passengers use public buses, 20% use taxis and 64% use private cars; the public transport network has good coverage but little integration among various modes, and no reliable schedule. In Beirut, the two pub-

lic transport companies that operate minibuses and buses account for around 90% of all buses and minibuses in the country.

In Sana'a, mass transport is mostly confined to older minibuses and taxis that do not coordinate their routes. The lack of adequate public transport in Palestine is particularly worrisome as the territorial separation and control of bypass roads and border crossings due to the Israeli occupation are estimated to double travel time and cost. In the West Bank, intra-city buses only originate in Nablus and Hebron; bus services have ceased in Gaza.



#### Box 7.1 Congestion charges in Tehran, Iran

Alleviating traffic delays, high accident rates and air pollution have been a priority for the 7.2 million people in Tehran municipality since the late 1970s, although regime changes interrupted various initiatives over the years. In 1979, Tehran instituted a *Restricted Traffic Zone* of 32 km<sup>2</sup> based on a similar scheme in Singapore. Access to the downtown area by private vehicle requires a paid permit; fines are levied on cars entering without a permit. Since April of 2010, Tehran has been using a new automated surveillance camera-based system for registration control, following the example of London. Cameras are located at over 100 entrance points. When there is no match between the license plates and the list of permit holders, a fine and a photo are sent to the address corresponding to the registered license plate within 48 hours.

Passes can be purchased online or by phone, and the rates are as follows:

- Daily: 123,000 Iranian Rial (about USD 11.60)
- Weekly: 738,000 Rial (USD 69.50),
- Annually: 1,850,000 Rial (USD 174)

There are discounts for disabled users. Government vehicles must purchase passes and commercial vehicles pay higher rates. Emergency and diplomatic vehicles, public transport, and private taxis are exempt.

Sources: Hashemi and Jalai (2012); *Institute for Transportation and Development Policy*, <http://www.itdp.org/news/sustainable-transport-award-cities-tehran>;

*Road Pricing*, <http://roadpricing.blogspot.com/2011/07/tehran-is-proud-of-its-congestion.html>;

*Tehran Municipality*, <http://en.tehran.ir/Default.aspx?tabid=103>;

*YouTube*, <http://www.youtube.com/user/Tehrannotraffic/videos>, Uploaded July 2010.

## 7.4 Management and financing of basic services

### Financing basic services

Water tariffs in MEWA are low compared to other regions of the world. Metering is used in most of the region, following a block tariffs pricing system.<sup>34</sup> Lebanon is an exception: households pay a lump sum at the beginning of each year for an anticipated daily volume of water of about 1 m<sup>3</sup>/day. This non-volumetric fee does not encourage conservation; however, as part of the government's National Water Sector Strategy, metering is planned to cover 75-95% of customers by 2015.

Authority over setting water tariffs rests either with central or regional agencies. Iran's Water and Wastewater Companies are under the umbrella of the Ministry of Energy that sets user tariffs while Lebanon's Regional Water Authorities set their own tariffs, subject to review by the Ministry of Energy and Water. In Yemen, urban local corporations set their own tariffs with a view to achieve cost recovery in the water sector. In Turkey, where municipalities set their own water tariffs, the Ministry of Development Ministry of Environment and Urban Planning, the Provincial Bank, and the Treasury do provide financial aid when municipal financial need exceeds resources. Table 7.7 provides water tariffs for selected cities.

<sup>34</sup> World Bank MENA Water Tariffs and Tariff Database, <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/MENAEXT/EXTMNAREGTOPWATRES/0,,contentMDK:22357013~pagePK:34004173~piK:34003707~theSitePK:497164,00.html>

**Table 7.7 Selected water tariffs**

|                        | Istanbul | Diyarbakir | Amman    | Beirut   | Damascus | Ramallah |
|------------------------|----------|------------|----------|----------|----------|----------|
| Tariff per cubic metre | USD 1.32 | USD 0.79   | USD 0.14 | USD 0.25 | USD 0.07 | USD 1.04 |

Source: Sonmez (2013). UN-Habitat (2012), p. 63.



**As a result of low collection rates and low pricing, central government transfers subsidize water provision.**

The base rate of sewerage tariffs are typically computed as a percentage of the drinking water rate and, in many cases, sewerage tariffs are collected along with water bills (Table 7.8). In Iran, sewage tariffs are 70% of water tariffs, while in Yemen they range from 50-80% of water tariffs. Lebanon's National Water Sector Strategy plans to introduce wastewater tariffs on a gradual basis, pricing them at 25% of the water bill. Jordan has instituted a wastewater tax equivalent to 3% of the property's rental value<sup>35</sup> although its 2008-2022 Water Strategy aims to progressively raise sewerage connection and usage tariffs to cover operation and maintenance costs and partially cover capital investment costs.

As a result of low collection rates and low pricing, central government transfers subsidize water provision. Sewerage tariffs are either added to water tariffs or levied as part of the property tax; collection rates therefore reflect the performance of these taxes. Gaza only collects 50% of water bills;<sup>36</sup> Yemen collection rates had improved to over 95% before the 2011 turmoil disrupted operations (GTZ 2009); Lebanon's four regional water authorities have varying collection rates, from Beka'a's 11% to Beirut-Mount Lebanon's 80%, with a national average of 70%. To improve the recovery of solid waste management costs, Jordan, Yemen, and Syria add sanitation surcharges to electricity bills.

The 5% sanitation surcharge Yemen adds to electricity bills is the largest revenue stream for City Cleaning Improvement Funds. These independent local publicly-

controlled entities collect 25 different tariffs in order to finance solid waste management and city beautification projects, including waste clean-up. They have improved solid waste management over the past 10 years and it is estimated that they cover 78% of the total cost for collection and disposal of solid waste.

Given the constrained financial positions of many MEWA countries, international donors have been major contributors to the construction of service infrastructure projects. Solid waste management is a favoured sector for donor financing assistance because of its impact on public health and the environment. The Greater Amman Municipality is working with The World Bank on a five-year, USD 40 million project to expand the main landfill in Amman and install technology that converts landfill gas to electricity. This component is a design-build-operate scheme in which the project will operate the system for five years and then transfer it to the private sector. Between 1994 and 2010, foreign donors provided more than USD 72 million to the Palestinian solid waste sector, mostly for infrastructure such as transportation, collection, and disposal facilities.

Municipalities in Turkey allocate nearly 40% of their budgets to solid waste collection and disposal. A sanitation tax is levied on households served by municipal waste management services. The tax is added to the water bill and is not related to the amount of waste processed; it does not cover costs. Proposals to tie the tariff to the amount of waste produced have

<sup>35</sup> Global Water Intelligence (2012).

<sup>36</sup> World Bank (2011), p. 2.



proved difficult to implement. In Syria, the central government allocates funds to the local administrative units responsible for collecting and transporting waste. A portion of the funds is raised from a “cleansing fee” whose value increases with the income of the user and is added to electricity bills. The fee does not cover costs.

In spite of the efforts of national agencies and local governments to improve metering and billing and tariff collection procedures, the tariffs charged for wastewater collection and treatment in the MEWA region do not reflect the real costs of providing the service, let alone the necessary capital expenditures. They have therefore had to rely on donor financing, and have delayed investments in comprehensive infrastructure improvements. In poorer countries, raising tariffs to the point of cost recovery is not politically practical: many local water companies in Yemen provide low-cost tariffs to the first block volumes to avoid inflicting hardships on the poor. These tariffs are cross-subsidized by the higher rates charged for increased volumes of consumption. In the city of Mahweet, for example, over 50% of clients receive only this “lifeline” level.

## Urban transport

The MEWA countries’ investment in the urban public transport sector has historically been limited. However, in recent years, with support from international organizations and donors, governments are planning and implementing major urban road improvements, such as Amman’s World Bank-funded ring road and three new light rail lines for the downtown area with a link to nearby Zarqa, the country’s industrial centre. In 2008, Syria announced that it will develop a subway network in Damascus, with all four planned routes to open by 2050. In November 2011, a World Bank-financed project in Beirut instituted a traffic management framework to expand metered on-street parking, improve major corridors, and explore such alternative transport options as BRT lines. In Lebanon, the Directorate General of Land and Maritime Transport prepared a draft integrated transport policy in 2002, aiming to ensure reasonable prices, manage traffic, control vehicle quality and improve urban planning. In 2012, the Council of Ministers approved the use of diesel and natural gas in private cars,<sup>37</sup> and the renewal of the bus fleet. Turkey has reduced



**In spite of the efforts of national agencies and local governments to improve metering and billing and tariff collection procedures, they have had to rely on donor financing.**

**Table 7.8 Selected urban water and wastewater tariffs**

| Country      | City                                 | Level of Water Tariff | Level of Waste Water Tariff |
|--------------|--------------------------------------|-----------------------|-----------------------------|
|              |                                      | USD/m <sup>3</sup>    | USD/m <sup>3</sup>          |
| Turkey       | Istanbul                             | 1.96                  | 1.29                        |
| Syria        | Damascus                             | 0.05                  | 0.02                        |
| Lebanon      | Beirut-Mount Lebanon Water Authority | 0.43                  | 0                           |
| Palestine    | Ramallah                             | 1.23                  | 0.32                        |
| Saudi Arabia | Jeddah                               | 0.05                  | 0                           |

Source: IB-Net, cited in Bassil (2010), p. 31.

<sup>37</sup> This measure will require an amendment to Law 341/2001 which banned the use of diesel in private vehicles, European Commission (2006).

vehicular greenhouse gas emissions by removing old vehicles from circulation and through improvements to the road network and urban subways, light rail and tramways. In Istanbul, the government plans to extend the rail network, including with a rail tunnel beneath the Bosphorus. Table 7.9 summarizes the costs of planned investments in the Turkish transport sector:

### Municipal financing of urban infrastructure

The ability to generate local revenue is key to the ability of local authorities to deliver basic services. Although legally mandated by decentralization laws, some of which date to the late 1970s, to perform an increasing



**Land is a major component of wealth in MEWA but, paradoxically, provides little public revenue.**

**Table 7.9 Costs of planned new investments in Turkish transport sector, 2011-2023**

|                             | Road    | Rail    | Maritime | Air    | Total   |
|-----------------------------|---------|---------|----------|--------|---------|
| Costs (mill. TL)            | 166,048 | 100,000 | 53,000   | 62,000 | 381,048 |
| Private share in PPPs       | 43,000  | 25,000  | 47,700   | 10,000 | 125,700 |
| Expected private investment | -       | -       | -        | 23,000 | 23,000  |

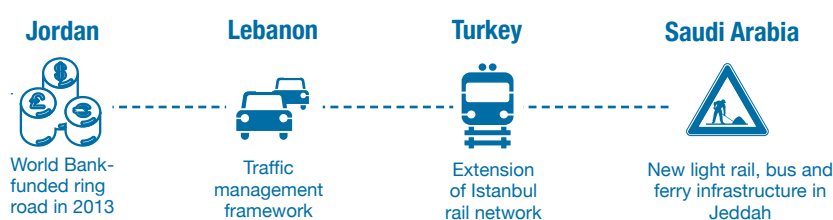
Source: World Bank (2012), p. 17.

Major public transportation infrastructure projects are planned for the Jeddah metropolitan region, including light rail lines, a feeder bus network, commuter rail and ferry routes, and extension of the trolley system. The balance between the financial sustainability of public urban transport operators and the affordability of user fares continues to be a challenge, closely tied to the issue of subsidies and urban poverty. In Yemen, despite the deregulation of fares in 2003, they have remained capped due to low-income levels, and lowering fuel subsidies is a complex political and economic issue.

number of functions, particularly as regards basic services, local authorities in the MEWA region lack the ability to generate the revenues they need to pay for services:

- They lack the authority to levy taxes and tariffs or set rates for existing taxes and tariffs.
- There is a disparity between user tariffs and the real cost of providing services because user tariffs are subsidized. In spite of the pressures of international lenders to raise tariffs to ensure financially sustainable levels and devise pricing structures that target subsidies to lower income populations, the political

### Major public transportation programmes



situation in the area has prevented reforms that may potentially add to civil unrest.

- Political pressures that permeate the billing and collection process and the recovering of arrears contribute to the low yield of taxes and tariffs.
- A lack of provision for operating and maintenance expenditures, in both domestic and foreign donor financed infrastructure projects, which accelerates their deterioration.

Land is a major component of wealth in MEWA but, paradoxically, provides little public revenue. Real estate taxes that are the mainstay of municipal finance in other parts of the world contribute disappointingly little to the revenue of MEWA municipalities. The taxation of urban property was only instituted during the post-World War I colonial occupation and, because of popular resistance, took the traditional form of levying a tax on the income produced by the property rather than its value. This so-called rental-value tax is closer to a beneficial occupancy fee payable by the occupiers of a property, irrespective of the form of tenure. At the time this was not the serious issue it has become today following the spectacular rise in urban land values in the region since the late 1970s. The few attempts made to change this legacy have been met with only limited success due to political pressures from powerful real estate interests and the importance placed by the upper and middle classes on land ownership and real estate investment.

Following the oil price rise of 1974, the dynamics of urban land markets changed rapidly. There was a massive infusion of capital in real estate driven by the remittances of migrants working in the oil producing countries and a pervasive housing shortage due to a lack of investment in the private formal sector as a result of more or less stringent forms of rent control and tenant protection laws in the region. New legislation and incentives

were enacted to encourage investment in the housing sector by alleviating constraints on new construction. These laws led to the densification of serviced areas and a shift from rentals to condominiums.

The uncontrolled urban expansion that ensued was characterized by a patchwork of:

- Unplanned, underserviced informal settlements developed on privately held agricultural land and in areas unsuitable for urbanization, mostly in public ownership;
- Urbanizing villages on the urban fringe;
- Poorer populations in dense dilapidated structures with deficient infrastructure and inadequate public services;
- Strategically located planned subdivisions that have recently had a propensity to evolve into gated communities as a result of the lack of security caused by the 2011 turmoil.

The unevenness of the resulting spatial pattern complicates the provision of services. Infrastructure in planned urban extensions can remain under-utilized until the design density has been reached while, in older, denser areas, it can collapse from overload. Informal settlements on agricultural land converted to urban use in violation of existing laws and development regulations continue to expand and densify and suffer from varying degrees of deficiency in infrastructure and basic services.

Urban expansion since the 1980s has accelerated the obsolescence of the tax rolls. The information needed to keep rolls updated must be compiled from governorates and municipalities, several central ministries, primarily finance, interior, and local governance, as well as survey departments, property registration directorates, branch offices of the treasury and other deconcentrated offices of central administrations. Given the new responsibilities devolved to them, local authorities and deconcentrated administrations lack the financial and human resources to undertake valuations at the frequency



**Local authorities and deconcentrated administrations lack the financial and human resources to undertake valuations of land and properties at the frequency required.**



**External financing for infrastructure projects covers only capital costs: maintenance is considered a responsibility of the regional organizations.**

required to keep up with the dynamics of the land and housing markets. While political pressures and real estate interests are major impediments to tax reform, political inertia and weak accountability undermine compliance, collections, and the enforcement of sanctions on delinquents, thus depriving local authorities of badly needed revenue to finance infrastructure.

Periodic blanket regularizations of violations of subdivision regulations and building codes in the informal settlements and, in some cases, amnesties from penalties for non-payment of taxes, have been the path of least political resistance but, in the process, undermine the ability of local authorities to plan and manage urbanization, particularly in the peri-urban areas.

Land is the primary basis of two categories of local revenue:

- **The real estate tax based on rental or rent equivalent values.** The national government sets the tax rate and the method of computing valuations. In some countries, municipalities have a role in assessments and collections, updating tax records and/or collecting and sending the receipts to the ministry of finance. The ministry in charge of overseeing local governance, usually the ministry of interior but sometimes a ministry of local administration, real-locates the funds vertically among the different levels of local governance, according to the law. The horizontal allocation among provinces and municipalities is determined by redistribution formulas that include four key variables: population, area, revenue generated and a measure of economic strength or poverty level.

Three major issues have been particularly difficult to address: the taxation of vacant unused land; the payment of “key money” in transactions involving rent-controlled properties; and the

buy-back of derivative rights by their original owners. While the taxation of vacant land is theoretically possible although not customary in most countries of the region, the illegality or semi-legality of the other two types of transaction protects them from taxation.

- **Betterment taxes designed to recapture part of the increase in value of real estate property resulting from public investment in infrastructure.** Taxes are levied on property within a defined impact corridor. They suffer from two major drawbacks: they are payable over a span of up to 10 years and therefore do not provide funding to undertake the works; they are levied on the current use of the affected properties and not their enhanced development potential after the infrastructure project, even though, in many cases, the reversionary value of the land is higher than the existing one.

### Local recurrent expenditures on basic services

Local authorities prioritize the funding of operating expenditures that cover salaries and wages and provide the services that affect the daily lives of their residents. In the context of budget constraints, expenditures on the maintenance of existing infrastructure and other local assets is invariably deferred until it reaches crisis proportions. External financing for infrastructure projects covers only capital costs; maintenance is considered a responsibility of the regional organizations that operate the utilities or of the local authorities that deliver the services. Moreover, when municipalities have the authority to finance infrastructure projects through loans, they have to account for debt service in their budgeting.

In informal settlements and lower income neighbourhoods, the neglect of infrastructure and the poor quality of basic services

can have serious social and environmental consequences, as was the case in the civil unrest of 2011.

Turkey has initiated a restructuring of its public administration system to align it with the European Charter of local self-administration (Box 7.2). There are four levels of local governance:

- 1) **Special Provincial Administrations (Law 5302)** that promote economic development, prepare the provincial environmental plan and undertake public works. They are also involved in health and social services and provide land to educational institutions and for youth and sports activities. They are responsible for planning and the provision of services to areas outside municipal boundaries.
- 2) **Metropolitan Municipalities (Law 5216)**, headed by a mayor, an elected council and an executive committee, are responsible for the preparation of a spatially coherent strategic plan and a capital investment programme for infrastructure and public transport. One of their key mandates is to designate land to meet housing and industrial requirements; this may entail clearing and relocating current uses, including informal settlements and illegal occupants on public sites. The municipalities within their jurisdiction are responsible for the collection and processing of solid waste; the issuance of permits; the building of parking lots; sport and recreational areas; and the provision of social and cultural services.
- 3) **The powers and responsibilities of individual municipalities (Law 5393)** are similar to those of metropolitan municipalities: land development planning and the provision of urban infrastructure (water supply, sewerage and solid waste management; public transport and traffic management); and parks and cemeteries. They are also involved in housing, social services, economic and



### Box 7.2 Fiscal decentralization in Turkey

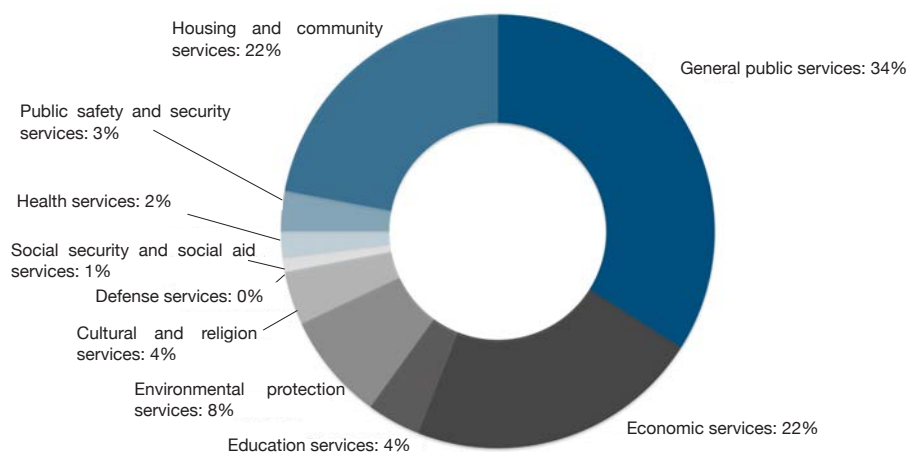
As part of its candidacy to join the European Union, Turkey is the first MEWA country to have initiated a restructuring of its public administration system to bring it more in line with the European Charter of local self-administration. As a result, the share of public revenue allocated to Turkish local authorities has increased (Law 5779/2004). However, municipalities, particularly those located in the economically lagging eastern and south-eastern parts of the country, still have limited revenue sources and remain highly dependent on central transfers to finance both capital expenditures and recurring expenditures.

Local revenues are now modulated to reflect the responsibilities devolved to each administrative level. While the old allocation formula relied solely on population size, the new formula is multi-faceted, including land area, the number of villages within the municipal boundary, the level of urban development and the functions devolved to the local level. Special Provincial Administrations can draw on multiple sources of revenue, of which the most important is the 1.15% of the state budget that is distributed to provincial administrations according to five weighted criteria: total population (50%), rural population (15%), development index (15%), area: (10%), and number of villages (10%). Other sources of revenue include central transfer included in the national budget (Law 5779/2008) including:



- Taxes, duties and charges, and revenue generated from locally owned assets;
- Fees and charges for public services provided by the province as set by the elected general provincial council;
- Receipts from investments in economic activities;
- Other sources including special payments and grants in aid.

**Distribution of local expenditures in Turkey (%), 2009**



Metropolitan municipalities receive 5% of the total tax revenue collected within their jurisdiction as well as a payment equal to 30% of the shares of total revenue allocated to the constituent municipalities within the metropolitan area. Other sources of revenue are limited.

Individual municipalities have four major sources of revenue: (1) a central transfer equal to 2.85% of the state budget distributed according to two weighted criteria: population (80%) and development index (20%); (2) State aid earmarked for specific purposes or as unrestricted block grants; (3) Self-generated revenues that include the property tax, and a number of lower yield taxes and fees; and (4) Off-budget financing and borrowing.

Valuations for property taxes are set based on cumbersome regulations issued by the Ministries of Finance and Public Works. Individual assessments are based on relative weights assigned to the use, the quality of improvements and the type of construction. This computed factor is then applied to the average national unit cost of construction to produce category specific indices that are multiplied by the area of the building to determine its assessed value. Since there are 800 possible permutations it is not surprising that, in practice, communities use an average unit price per street, adjusted for inflation, rather than comprehensive updated assessment of individual properties. The tax rate is 0.1% for residential properties; 0.2% for non-residential buildings; and 0.3% for land. The property tax is multiplied by 100 for properties within metropolitan areas to adjust for the higher values of land in the larger core cities and surrounding urban agglomerations.

Village revenue includes a tax levied on households, proceeds from fees, charges and fines, aid and grants, and in-kind contributions of villagers to village works.

commercial development, the building of such public facilities as clinics and schools, and the conservation of cultural and natural assets, including historic urban areas.

- 4) **The responsibilities of villages (Law 442)** focus on providing potable water, environmental health and roads within the village boundaries. They also build small, public facilities such as mosques, schools and community halls.

Turkish law also allows local authorities to form “unions” to collaborate on the delivery of the public services for which they are responsible. These are public corporate entities with managerial and financial autonomy. They derive their revenue from membership fees, user charges for the services they provide, contributions from other public entities, and revenues from assets and other sources. Provincial administrations make financial contributions to both unions and villages.

Since 2005, municipalities have been able to keep a larger share of the property taxes they collect and recent laws have clarified the geographical divisions and responsibilities of local governments. The sharing of locally generated taxes collected by the central government has been redefined to better match the flow of funds to the needs of local authorities, from the provincial to the village level; in practice, some regions remain dependent on central transfers.

Iraq’s case illustrates the difficulties of urban management in the aftermath of the wars that have devastated its cities and destroyed its infrastructure, depriving the population of access to basic services. Reconstruction has been hampered by the continuing civil unrest, widespread insecurity and, in some areas, serious turmoil. Even though property owners usually hold title deeds, the loss of many of them following the wars has led to competing claims while

the large number of forged documents in circulation and of restitution claims by former exiles further complicates the task of re-establishing a property registration system.

Iraq’s 2005 Constitution established the principles by which national oil revenue is to be shared among localities, stipulating that it should be distributed according to population size, while Law 21 of 2008 granted local councils the right to levy local taxes but this right was challenged by the Ministry of Finance and invalidated by the courts. As a result, local authorities are totally dependent on central transfers to finance both capital investments and operational expenditures. Kurdistan stands out due to its status as a Regional Government: in 2010, it received 17% of the national budget in comparison to the 5% shared by the remaining 15 governorates. In 2011, an allocation of USD 1/barrel of oil was given to governorates that produce or process oil, raising the local funding allocations to USD 4.37 billion of which USD 3.72 billion was destined for capital investments and USD 0.42 billion for operating expenditures.

In Jordan, municipalities use a centrally defined tax base and apply the given rates to the properties within their jurisdictions, issue billings and collect the property tax; two-thirds of the yield is allocated to the municipality. All land transactions and new subdivisions are recorded by the Department of Land Survey and the Ministry of Finance is digitizing records for the 93 municipalities; in Greater Amman, the tax records are already computerized. Amman has a special regime that includes variable rates according to neighbourhood characteristics, giving it a greater degree of discretion in the valuation process. There is a fee levied on the value of property transactions that was reduced from 10% to 5% in 2010.

A depreciation factor of 20% is applicable to all existing buildings, with an additional 10% depreciation for structures built before 1974.



**Iraq’s case illustrates the difficulties of urban management in the aftermath of the wars that have devastated its cities and destroyed its infrastructure, depriving the population of access to basic services.**

The tax is a flat rate of 10% but surcharges of 2% for education and 3% for sewerage are added to the base tax. The rent equivalent value of vacant land is estimated at 2% of capital value and taxed at a rate of 2% for an effective tax rate of 0.04%. In 2009, the total revenue derived from the property tax accounted for 2.6% of total government tax revenue and 0.46% of GDP.<sup>38</sup> As in other MEWA countries, the tax on vacant land is too small to deter speculative holding, let alone plot purchase and holding as a first step in the process of informal housing construction financed by savings.

A revaluation of property values, mandated to take place every five years, is now eight years overdue, resulting in an estimated undervaluation of over 50%, given the rate of urban growth experienced in larger cities. Collection rates do not exceed 70% in Greater Amman, and are lower in other municipalities; this is in line with rates in most developing countries. Given the combined effect of undervaluation and inadequate collections, the property tax's contribution to the GDP has declined over the past five years and local receipts have diminished while the urbanized area has expanded.

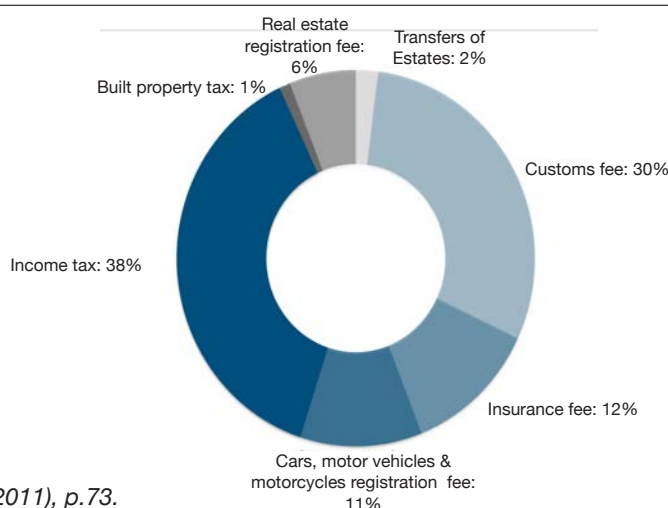
Lebanon stands in contrast to other MEWA countries in that property taxes are collected directly by the municipalities and,

together with construction permits, account for 85% of their receipts. The fee is a percentage of the rental value of property set at 5% for residential use and 7% for other uses. An additional fee of 1.5% is collected for sewerage. The actual income derived by property owners from the renting out of commercial or residential property is included as part of the income tax.

Since vacant premises do not generate rents, the revenue loss from the speculative holding of land and buildings is important, particularly during economically buoyant periods. Furthermore, Lebanese municipalities do not tax buildings erected without a permit and municipal tax rolls are obsolete. In 2009, the World Bank estimated that 35% of occupants do not report their use of property to the local authorities and that the yield of the tax, if properly administered, could have tripled. A 2005 Court of Audit decision specified that owners and occupants of illegal buildings must also pay taxes but the implementation of the decision and the level of compliance is unclear.

The elected municipal councils determine tax rates, manage their budgets and borrow funds to undertake specific projects using present and future revenues as collateral to obtain a sovereign guarantee of the loan. The administration district

**Figure 7.6 Composition of the Independent Municipal Fund revenues in Lebanon, 1999-2009**



<sup>38</sup> USAID (2010).

Source: ICMA (2011), p.73.

manager authenticates all municipal financial decisions, including the budget, the tax rate, the purchase, sale or lease of municipal assets and contracts. The provincial governor must approve the outsourcing of public service delivery and concession.

The *Independent Municipal Fund* is a fiduciary instrument for the deposit and redistribution of taxes that are centrally collected on behalf of local authorities and also serves as a fiduciary intermediary for donor funding of projects through grants and loans. The Ministry of Finance withholds legally specified amounts from the receipts of real estate taxation and utilities: 10% is taken from the property tax collected within municipal boundaries and also from transfer fees, and surcharges are added to registration fees (5%) and water and electricity bills (10%). A value added tax is also levied on telecommunications outside of municipal boundaries. These deductions are deposited in the fund and included in the pool to be allocated annually (Figure 7.6).

In Syria, local government finance is centralized and all local government operations are funded through central transfers. Any unspent funds are returned to the national treasury.

In Iran, the enactment of the 2003 Law on Tax Amalgamation has centralized revenue collection. Local governments depend on central transfers that are allocated annually in accordance with a decision of Parliament. The allocations reflect the priorities of the national five-year development plans. They are also assumed to take into consideration a ratio of local revenue to local income determined by the Ministry of Interior: 60% of the development transfers are earmarked for specific projects including infrastructure and 40% are discretionary.<sup>39</sup> The most important source of local revenue is fees collected for construction permits, changes in permitted use, and

density increases. The absence of a well-defined allocation formula affects the predictability of local revenue and renders the redistribution policy prone to politicization.

In Palestine, the special situation that prevails in the Occupied Territories and Gaza since the 2006 elections has forced municipalities to rely on the revenue they raise to finance basic services. The 1997 Law on Local Authorities empowers them to impose new taxes and tariffs and set tax rates through amendments to the existing tax law. They must secure the approval of the central government regarding new taxes or changes in rolls, including property taxes, building permits and tariffs for public services. In Gaza, municipalities administer these taxes directly. Given their limited resources and the necessity for them to be self-reliant and manage their own affairs, Palestinian municipalities depend on donor funding for infrastructure projects and to finance the delivery of public services. Most of these projects are overseen by the foreign organizations that fund them.

In Yemen, the management of public finance is the sole responsibility of the Minister of Finance. The parliament approves the national budget but does not amend individual items. The Ministry of Planning and International Cooperation prepares the national development plan and an annual investment budget, based on a multiyear capital investment programme derived from the priorities and targets detailed in the plan. A High Tender Board endorses tenders over stipulated thresholds. The Local Authority Act (2000) enables municipalities to receive funding from several sources:

- Locally generated revenue from taxes, tariffs and other charges;
- A share of revenues locally collected by the national government;



**In Palestine, the special situation that prevails in the Occupied Territories and Gaza has forced municipalities to rely on the revenue they raise to finance basic services.**

<sup>39</sup> Tosun and Yimaz (2008).



**There is a recent trend towards funding of poverty-reduction projects and environmental initiatives.**

- Central transfers for recurrent expenditures, consisting mostly of salaries and wages;
- Centrally funded subsidies for capital investments; and
- Grants from private and bilateral donors that constitute the main source of finance for development projects.

The central government determines the tax base and sets the rates of taxes and tariffs. Apart from the *zakat*, a religious wealth tax, similar to a tithe, allocated to support the provision of public services and social assistance, there are few taxes collected outside the larger cities and almost none in the rural areas.<sup>40</sup> In effect, all sources of local financing combined barely cover recurrent expenditures and capital investments account for no more than 10 to 15% of local expenditures, a meagre USD 6 per capita annually.<sup>41</sup>

In Saudi Arabia, municipalities can neither set rates for local taxes nor collect them; they have no borrowing power and are dependent on central transfers for funding. Their only sources of revenue are fees for the issuance of building permits, annual fees for business licenses and advertising signage. These fees are collected by the Ministry of Finance and returned to the municipalities. Due to their special status, the Emirates of Riyadh (the capital) and of Makkah and Medinah (the two Holy Cities) have separate budgets and are allowed to manage their own finances, reporting directly to the Council of Ministers and the king. Technical committees are responsible for public administration, urban planning, the management of urban development and the provision of public services, including education and health. Their most important duty is to oversee the Hajj, the annual pilgrimage that brings over 3 million Muslims from as far as China, Australia and Latin America to the two holy cities and the Umra ritual that can be performed

year round and brings millions of additional visitors to the two cities and to Jeddah, the gateway to Makkah. The sheer volume of visitors requires special infrastructure and services, particularly in transport and health.

### **Financing and management of basic services**

Longer term financing for local basic services and social housing is difficult to obtain in the non-oil-producing MEWA countries. Grants from central governments are limited, and loans from donors and multi-lateral or bilateral development organizations require sovereign guarantees and carry foreign exchange risks that governments are often reluctant to take on. Available funds are allocated to finance primary infrastructure projects in the capital and the larger cities and to respond to such urgencies as reconstruction following natural disasters and the rehabilitation of areas affected by civil turmoil. As is the case in other developing countries, municipal financial institutions have been created to specifically provide local governments with investment capital. Mostly centrally funded, they are supported by the World Bank and other international development organizations.

Well-managed funds in emerging economies have prospered while poorly managed ones have imploded, and many have been restructured to avoid collapse. Although investment has been targeted to financing infrastructure projects, there is a recent trend towards funding of poverty-reduction projects and environmental initiatives. Given the politically destabilizing growth of income disparities in urban areas and the anticipated impacts of climate change, it is reasonable to assume that these projects will receive increasing attention at the local level.

There are several noteworthy funds in the MEWA region. In Jordan, the Cities and Villages Development Bank is an

<sup>40</sup> Tosun and Yimaz (2008).

<sup>41</sup> World Bank (2010).



**Table 7.10 Composition of the Cities and Villages Development Bank**

| Contributor                     | Announced Capital    | % of Total  | Paid-up capital  |
|---------------------------------|----------------------|-------------|------------------|
| The Hashemite Kingdom of Jordan | JD 34 million        | 68%         | JD 34 m          |
| Jordan Central Bank             | JD 1 million         | 2%          | JD 1 m           |
| Local council                   | JD 15 million        | 30%         | JD 11.6 m        |
| <b>Total</b>                    | <b>JD 50 million</b> | <b>100%</b> | <b>JD 46.6 m</b> |

Source: Cities and Villages Development Bank, [http://images.jordan.gov.jo/wps/wcm/connect/gov/egov/government+ministries+\\_+entities/cities+and+villages+development+bank/general+information/cities+and+villages+development+bank+general+information](http://images.jordan.gov.jo/wps/wcm/connect/gov/egov/government+ministries+_+entities/cities+and+villages+development+bank/general+information/cities+and+villages+development+bank+general+information)

administratively and financially independent public institution that has been providing long-term financing to municipalities since 1970 (Table 7.10). Loans are awarded to local councils for projects that improve services and productivity. The CVDB also guarantees and administers loans between the councils and other parties, as long as these loans are aimed at similar services and productivity projects.

Palestine's Municipal Development and Lending Fund is an independent public institution established in 2005 to assist local governments in promoting economic development and improving their efficiency. The MDLF allows municipalities to access financial resources from the Palestinian Authority and donors that are dedicated to basic services and local infrastructure projects. Between 2005 and August 2012, the MDLF funded USD 126 million of small donor-financed projects for municipal infrastructure, capacity development, and innovative initiatives at the municipal level.

Turkey established the İller Bank (Bank of the Provinces, or İIBank) in 1933 to finance urban development in municipalities. Its institutional role was redefined in 2011 (Law 6107) and it now provides advisory and technical services as well as financing to

assist local governments in attracting and managing international financing for their development projects. It also acts as an intermediary for central transfers to local authorities, a role that gives it a special status in its interaction with municipalities. It offers financing in three major areas:

- Infrastructure: potable water supply, sewerage, solid waste management, and desalination;
- Land and real estate acquisition or expropriation by eminent domain, as well as procurement of equipment; and
- Construction projects, including public services facilities, roads and terminals, business centres and open space and parks.

Iran was about to launch a local development fund with the participation of the World Bank in 2005. The fund would have targeted peri-urban and rural communities with a focus on small-scale infrastructure projects, including water and wastewater. The sanctions imposed on Iran put a halt on this initiative.

In parallel with the evolution of public finance towards broader involvement of the private sector, municipal development funds are evolving from their initial structure as instruments to channel public funds



**“Regional special funds” constitute another potential source for financing the provision of local basic services.**

to local authorities to become sources of longer-term investment capital needed for the improvement of basic urban services. Many have emerged as privately managed autonomous “local development funds” whose size and capacity enable them to attract private investment and offer municipalities longer term financing for capital intensive infrastructure projects.

The private equity in these financial intermediaries enables them to create new products that enhance their ability to tap international capital markets. A model for this successful transformation is India’s Tamil Nadu Urban Development Fund that also manages a separate grant fund for social projects. Local development funds now exist in Asia, Latin America and South Africa. A key benefit to municipalities is that it enables them to access domestic and international capital markets through the pooling mechanisms and enhanced credit products that the funds provide. Water, sewerage, and road construction are the most common projects for which municipalities request loans. Most municipal finance institutions and local development funds have been granted the power of interception over central transfers of revenue to local authorities.

“Regional special funds” constitute another potential source for financing the provision of local basic services. Although such funds exist in MEWA, mostly sponsored by GCC countries, they usually do not finance projects undertaken by local authorities. Some, like the Kuwait Fund for Arab Economic Development, provide financing for water, sewerage and transport projects to provincial authorities but require sovereign guarantees. A notable exception is the Kuwait-based Arab Development Fund for Economic and Social Development, which finances social, economic and cultural projects aligned with national plans. Grantees are expected to make a financial contribution and can be public or private organiza-

tions. The fund prioritizes joint Arab projects that foster cooperation between countries, including in communications, roads and electricity infrastructure.

The Arab Financing Facility for Infrastructure is a joint venture between the Islamic Development Bank, the World Bank, and the International Finance Corporation to promote public-private partnerships for infrastructure projects. Sectors covered include power, transportation, water and sanitation, communications, health and education. The facility provides investments, financing guarantees, and technical assistance to governments and the private sector for specific projects.

### **Public-private partnerships in the financing and management of basic public services**

The combination of accelerated urbanization and underinvestment in infrastructure has impeded the ability of MEWA to deliver basic public services to spreading informal urban areas. Governments had started to seek the involvement of the private sector even before the issue of inadequate services became a factor in the 2011 protests.<sup>42</sup> MEWA countries have also lagged in promoting and sponsoring autonomous, privately managed funds targeting local development or creating innovative funding mechanisms. They also lack microfinance institutions that can assist lower income households finance their share of the cost of access to upgraded basic services in projects aiming to regularize and improve living conditions in slums and informal settlements. Until this happens, local authorities will continue to depend on central planning, budgeting and programming for water, sanitation and transport projects.

Private sector participation in infrastructure can take many forms in accordance with the structure of the contractual agreements and the degrees of risk sharing and

<sup>42</sup> World Bank and Public-Private Infrastructure Advisory Facility (PPIAF), <http://ppi.worldbank.org/>

cooperation between the public and private parties. Some concessions, divestitures and Greenfield projects include government guarantees and other incentives to make the scheme attractive to private enterprise and offset investment risks. These arrangements are considered public-private partnerships (PPPs) as they require a sharing of costs and risks between the two sectors (Box 7.3).

Private sector involvement in infrastructure in the MEWA region between 1990 and 2011 has been mostly limited to central projects and concentrated in energy and telecommunications, two highly remunerative sectors. For the region's reporting countries (see Annex 7.2 of GOLD III), total investment in these sectors increased from USD 78 million in 1990 to USD 18,565



### Box 7.3 Khirbet As-Samra wastewater treatment plant

Jordan's first PPP project was a 25-year Built-Operate-Transfer contract, serving the 2.2 million residents of the Amman and Zarqa regions, awarded by the Ministry of Water and Irrigation to the French company Suez Environment. The project was tendered in 2001, with final agreements made in 2003; construction started in 2004 and was completed in 2008. Its institutional structure illustrates the complexity of PPPs in the region.

The design, construction and a 25-year concession to operate the project was awarded to a private sector entity, the Samra Wastewater Treatment Plant Co. Ltd., created by Suez Environment and a group of international investors, including two American companies: Morganti, an affiliate of the Consolidated Contractors Group, and Infilco Degremont. A consortium of banks, led by the Arab bank arranged a syndicate of nine local and international financial institutions to provide a 20-year loan. The project's total cost was USD 169 million, funded as follows:

- USAID through the Millennium Challenge Corporation: 78 million (46%)
- Bank Consortium led by the Arab Bank: USD 60 million (36%)
- Samra Plant Consortium (Suez Environment subsidiary): USD 17 million (10%)
- Government of Jordan, Ministry of Water and Irrigation: USD 14 million (8%)

The Swedish International Development Cooperation Agency provided bridge financing during the first 18 months of the preparatory phase of commissioning and the World Bank's Multilateral Investment Guarantee Agency granted a guarantee of USD 9.8 million in 2006.

The first phase of the project was the design and construction and the operation of the plant until 2015; the second consists of expansions to accommodate a 40% increased demand to 2025 due to Amman's rapid growth, from 267,000 m<sup>3</sup> per day to 367,000 m<sup>3</sup> per day. The USD 223 million cost of the expansion will be covered under the same BOT scheme, with USAID providing USD 93 million, the Government of Jordan contributing USD 20 million, and private equity sources financing the remaining USD 110 million. No land acquisition is needed for the expansion since the land belongs to the Ministry of Water and Infrastructure.



**MEWA countries have also lagged in promoting and sponsoring autonomous, privately managed funds targeting local development or creating innovative funding mechanisms.**

million in 2011. While water and sanitation projects are under-reported in this database, examples of private-sector involvement are covered in the section on basic services, and in the box on the previous page.

A solid legal framework for public-private partnerships is crucial to regulate risk sharing and mutual agreements between the two parties. Jordan, Lebanon and Syria (before the current turmoil) have drafted specific laws to create a clear regulatory basis for PPPs. A key component of these laws is the establishment of high-level committees with representatives from the various ministries that are responsible for PPP project oversight, to enable the central government to take the lead in planning and programming and on the structure and oversight of PPP projects. See Box 7.3 for a description of Jordan's first PPP project.

Building older legislation, Iraq's 2010-2014 National Development Plan emphasizes the use of PPPs for infrastructure: the 1986 Law of State-Owned Property Sale and Lease #32, which allows for partnerships between the private and public sectors; the 1987 Company Law #22, which allows state enterprises to partner with Arab or foreign companies within the same sector; and the 2004 Law on Public Contracts, which further regulates these partnerships. A 2009 amendment to Investment Law #13 extended land allocation benefits to PPPs.<sup>43</sup> Since 2007, Turkey has had laws governing the most common PPP models (mainly Build-Operate-Transfer and its variations); it is in the process of drafting a single PPP law with more flexible options and better guidance.<sup>44</sup> Yemen is currently developing its PPP law with financial assistance from the World Bank, the International Finance Corporation and the Islamic Development Bank's Arab Financing Facility for Infrastructure.

The 2011 civil unrest in the region, as well as the global financial crisis, have led to a gen-

eral decrease in private and foreign direct investment outside the GCC and Turkey. Governments in non-oil producing countries are operating with the urgent need to increase service quality and quantity while experiencing severe budget limitations and will be hard-pressed to develop alternative financing models to attract private investors in view of the general perception of pervasive instability and lack of security and civil unrest in the region. At the municipal level, local governments have limited resources to offer in public-private agreements.

### Land-based financing of urban improvements

Despite the difficulties involved in dealing with land rights and related issues, local authorities in emerging economies are increasingly turning to land as a pivotal asset in the financing of urban projects, particularly social projects. They can obtain land through three main instruments: the allocation of state-owned land or the transfer of property from central agencies; the appropriation of private land by eminent domain for a public purpose; and negotiated purchase agreements.

Allocated land on the periphery of existing urban areas is widely used in North Africa to develop new towns and planned urban extensions in partnership with private investors, usually consisting of a mix of affordable housing, large-scale public housing projects and industrial zones. The affordable housing component has not been immune to abuse since land for this purpose is normally granted at a subsidized price and privately developed projects have tended to produce up-market units instead of affordable ones.

Land expropriated or purchased by local authorities has traditionally been used for rights of way for roads and public utilities and for public facilities in densely

<sup>43</sup> Böhmer (2010), p. 14-15.

<sup>44</sup> Uzunkaya (2010), p. 19.

populated, underserved neighbourhoods. More recently, local authorities have turned to instruments that allow them to recover the market price of land through clearance and resale when there is a substantial imbalance between the value of land and the value of the public improvements made. This approach has been used elsewhere in urban renewal and regeneration projects but has often been viewed as socially exclusionary since affected households were invariably relocated in outlying housing projects. Turkey's law of urban regeneration has attempted to address this challenge by allowing the Ministry of Environmental and Urban Planning to intervene in the restructuring of substandard neighbourhoods in cities experiencing rapid urbanization (Box 7.4).

Because of their construction with permanent materials and their better building standards, most formal settlements only require improved services and regularization of their layout. Slums and other informal neighbourhoods need restructuring. An alternative to the social dislocation of urban regeneration is *in-situ* upgrading through

land readjustment, a concept widely used in Asia, notably in Thailand. It has been emulated elsewhere, including in Africa. Most of these neighbourhoods, which were at one time on the urban fringe, are now more centrally located and their residents do not want to be displaced. *In-situ* replatting and rebuilding to safe and sanitary standards with adequate public services meets the objectives of the city and the residents. Resident owners get a smaller land plot or a dwelling in a new multi-family building. The portion of the original site most appropriate for commercial development is auctioned off and the receipts used to defray the cost of the infrastructure and rehousing.

Irrespective of their socio-political orientation, MEWA cities will increasingly look to land-based financing instruments as the most attractive way to finance infrastructure and urban improvements in view of the high value of urban land and its rapid appreciation. Furthermore, concern over potential civil unrest by restive populations is increasingly deterring displacement to peripheral locations.



**MEWA cities will increasingly look to land-based financing instruments as the most attractive way to finance infrastructure.**



#### Box 7.4 Turkey's Law of Urban Regeneration

Turkey's 2012 Law on Urban Regeneration (Law 6306) grants the Ministry of Environmental and Urban Planning the ability to demolish buildings at risk and rebuild them in a safer location. This Law allows the government to a) regularize informal settlements; b) redesign the area with aesthetic and functional goals; and c) reuse urban land for higher uses. This latter purpose is the most common use of the legislation. Over 7 million buildings in Turkey's major cities are expected to be constructed as a result of this law.

Residents of affected areas can choose to voluntarily demolish their buildings in exchange for compensation, or let the government do it for them. Displaced persons are given the option to stay in the new buildings (which are generally too expensive for them) or relocate to social housing projects in less central areas. The law provides for the establishment of a Regeneration Projects Fund to give loans to investors to redevelop the cleared areas. The funds are generated from fees collected in the implementation of the Environments Law, profits from property sales under the Forestry Law, and from the *İllerBank*.





## 7.5

### Existing and emerging challenges

The MEWA countries share a strategic location, a rich cultural heritage and a tradition of centralized governance. Among the challenges they face are conflicts that have saddled the area with half of the world's refugees and internally displaced populations and caused major damage to the urban infrastructure of many countries.

In spite of a projected decline in fertility, MEWA cities will have to accommodate over 96 million new residents by 2030. A large youth cohort will continue to demand jobs, housing and services that all countries have been hard-pressed to provide. This situation, aggravated by the 2008 recession, has triggered massive population movements, both internal and external. However, the improved education levels of this young labour pool, its openness to new ideas and its eagerness to adopt new technologies has the potential to propel their countries economically.

The expansion of urbanized areas will lead to the emergence of metropolitan agglomerations and urban regions characterized by corridors, nodes, satellite cities and new towns. Urban dynamics driven by a sustained demand for jobs and housing, and fuelled by remittances, will continue to

create dysfunctionalities in land and housing markets and produce a mix of both planned and serviced areas, unplanned underserved informal settlements, and urbanizing villages on the urban fringe while the infrastructure of older areas continues to deteriorate.

## Climate change and natural disasters

MEWA countries are prone to flash floods, earthquakes, droughts and heat waves that have affected food prices and security and accelerated urban migration. These risks will be aggravated by climate change. Investment in infrastructure is a critical component of disaster risk management and building resilience.

Iran, Turkey and Yemen have suffered a series of recent earthquakes. Urbanization, industries and resort areas have stretched along the Mediterranean and Red Sea coasts, disregarding the risks posed by storm surges and rising sea levels. Millions of people exposed to these risks may suffer loss of life, assets and potential displacement. The existing infrastructure does not allow local authorities to respond effectively to emergencies of some magnitude. Poorer communities on the urban fringe have to fend for themselves.

Greater priority should be given to enabling local authorities to handle the different categories of foreseeable urban disasters with a special focus on the most vulnerable communities and informal settlements in hazardous locations. Since risk reduction strategies may require action beyond the jurisdiction of a single local authority, overlapping responsibilities are a serious issue, particularly in peri-urban coastal areas and other hazardous locations (including wetlands, lowlands and slopes) where urban risks will be compounded by adverse impacts on both ecosystems and invaluable

natural and cultural assets. Dubai, Iran, Lebanon, and Oman, among others, have undertaken risk assessments that should help them plan investments in infrastructure in localities in high-risk areas.

In this context, centralization and bureaucratic procedures are a major cause of institutional dysfunctionalities. Infrastructural deficiencies; inadequate channels of communication, despite the availability of mobile devices; and the limited engagement of stakeholders, including NGOs, are leading to the underestimation of risks.

Lebanon's Disaster Risk Management Unit in the Presidency of the Council of Ministers has embarked on a comprehensive disaster risk reduction programme involving Beirut and 51 other municipalities. In Iran, the city of Mashhad is undertaking a pilot risk reduction project with support from the provincial government. In Yemen, risk preparedness has still not devolved to local authorities and coordination is an issue at the national level as two agencies share the responsibility to address disaster risk: the National Disaster Management Unit and the Directorate of Environmental Emergencies and Disasters, and functions are still not devolved to local authorities.

Compounding these challenges are the anticipated impacts of climate change. The region's water scarcity is already apparent, while sea level rise will affect low-lying areas and coastal cities. Climate change models predict that by 2050 the MEWA region will be 2.5-3.7°C hotter in summer and 2.0-3.1°C hotter in winter. Weather events and droughts will increase in frequency and severity. Reduced precipitation will lead to further stress on water resources. The only increases in rainfall expected are in Iran and western Iraq.<sup>45</sup>

Sea level rise will threaten infrastructure and coastal freshwater aquifers, particularly in Gaza, with saltwater intrusion and an increase in the frequency of floods in



**MEWA cities will have to accommodate over 96 million new residents by 2030.**

<sup>45</sup> Gobei and De Pauw (2010).






**Reduced precipitation will lead to further stress on water resources.**

densely populated, low-lying areas. Sea levels are predicted to rise by 0.1 to 0.3 metres by 2050. The Mediterranean Sea rose 1.0 – 1.5 mm every year between 1943 and 2000, and has risen 20 centimetres since the beginning of the 21<sup>st</sup> century.<sup>46</sup> In Iraq, the low elevation of the land between Basra and the Shatt al-Arab, including the important ports of Umm Qasr and Al-Faw, makes it vulnerable to both flooding and the erosive effects of rising sea level.<sup>47</sup> In Saudi Arabia, Dammam, Ras Tanura,

Jubail and Khafji on the eastern coast and Jeddah, Rabigh, Yanbu and Jizan on the western coast are the most vulnerable coastal cities. A 2002 study predicted that the combined impacts of increased demand; water resource decline; flooding and water quality damages; hydropower loss; and ecosystems damage associated with climate change will cost Jordan 1 to 2% of its GDP, Lebanon 2 to 5%, Palestine 2 to 5%, and Syria 4 to 7%.<sup>48</sup>

#### Change of Climate Variables for Lebanon in 2020s Relative to 1961-1990 (IPCC-DCC 1999)

|  |   |                 |
|--|---|-----------------|
| Winter (JFM) mean temperature increase |    | Change + 0.8 C° |
| Summer (JJA) mean temperature increase |  | Change + 1.2 C° |
| Max T for hottest month - July         |  | Change + 2.0 C° |

Source: Bou-Zeid, Elle, and Mutasem El-Fadel. "Climate change and water resources in Lebanon and the Middle East." *Journal of water resources planning and management* 128, no. 5 (2002): 343-355.

<sup>46</sup> Yáñez et al (2011).

<sup>47</sup> El Raey (2010), p. 72.

<sup>48</sup> Bou-Zeid (2002).

## CONCLUSIONS AND RECOMMENDATIONS

The planning and management of the region's high rate of urbanization is the shared responsibility of a complex and evolving system of central and local authorities, with resources concentrated in the national ministries, with a progressive devolution of responsibilities to the provincial/metropolitan level and, to a lesser extent, the local level. Except in the GCC, all infrastructure and public service sectors are underfinanced. While, in most countries, the highest cost services remain the responsibility of national ministries, local authorities are hampered by inadequate funding and are unable to discharge their mandates. *Efforts to balance the asymmetrical decentralization process must be pursued within a coherent framework based on principles of subsidiarity, equitable redistribution of resources, and enhancing local own source revenue.*

In the face of these challenges, many cities have made notable improvements. Access to services has improved but, while the proportion of people living in underserved areas has diminished, their number has often increased and the quality of available services is highly variable.

### Water

All countries, except for Turkey and Iran, are consuming water at an unsustainable rate. Key constraints include a rising demand that is outstripping supply, dwindling reserves, lack of river basin management, inadequate funding of provincial and local authorities, and pricing issues complicated

by cultural traditions. In addition to the rising demand due to the rate of urbanization, distribution systems are plagued by water losses of 20 to 40% that are mostly due to obsolescence, underinvestment and a lack of maintenance. *Major investments are needed in the maintenance and operation of the water infrastructure system, as well as a reform of tariff structures to encourage conservation.*

### Sanitation

While access to improved sanitation is high for most countries, the statistics include all forms of on-site, low-cost sanitation options, such as cesspits and septic tanks. The high capital cost of water-borne systems accounts for the failure of local administrations to improve the quality of services and keep up with urbanization. The inability to recover costs impedes the extension of services to urbanizing areas, especially informal areas. *Urban development strategies must address the difficult problem of rehabilitating degraded systems and retrofitting informal settlements. They must establish sinking funds for this purpose at the local level responsible for the operation and maintenance of the collection and treatment systems.*

### Solid waste management

The sanitary disposal of solid waste is the most common municipal function, but many cities lack the capacity to collect and dispose the amount generated (close to



**Efforts to balance the asymmetrical decentralization process must be pursued within a coherent framework based on principles of subsidiarity, equitable redistribution of resources and enhancing local own source revenue.**



**Private operators do not service the poorer neighbourhoods well because of the high organic content of the waste and the narrow unpaved roads.**

10,000 tons/day in mega cities). Recycling has yet to achieve its potential because of the limited market for recyclables. Many cities have resorted to outsourcing and concessions to make up for their own lack of equipment and technical staff. However, private operators do not service the poorer neighbourhoods well because of the high organic content of the waste and the narrow unpaved roads. Servicing settlements on steep slopes precludes the use of motorized vehicles. *Urban sprawl will have to be controlled through coherent spatial policies that address the need for affordable housing, currently met by informal settlements, before a solution can be found to the daunting problem of waste collection and its disposal in sanitary landfills.*



**Transport improvements will require a better control of spatial development and national, metropolitan and urban growth strategies structured by development corridors and nodal densities.**

#### **Urban transport**

The construction of multi-modal transportation systems is the key instrument in structuring urban expansion and developing laggard regions. All levels of government are involved in the planning, construction and operation and maintenance of the road networks. Larger cities have to manage people flows with subways and rapid bus transit lines that handle millions of daily person-trips. Tourism destinations have been prioritized, as have export processing zones that generate foreign exchange revenues. Despite the efforts made, rapid population growth and rising car ownership have overtaken improvements. Traffic congestion is a key feature of larger cities and imposes hardships on the urban poor.

*The reliance on cars and privately operated vehicular mass transportation has reached an unsustainable level in most cities and metropolitan areas, causing pollution and economic costs. Transport improvements will require a better control of spatial development and national, metropolitan and urban growth strategies structured by development corridors and nodal densities that will efficiently support mass transit.*

#### **Local governance and finance**

In spite of decades of progressive devolution, most MEWA cities still lack a clear mandate to plan and manage their expansion and the necessary financial resources to invest in infrastructure or the technical capacity to carry out their mandates. Lacking revenue, even those local authorities that have borrowing power are often unable to repay the loans required to finance capital investments or finance the annual expenditures needed to meet the rising recurring costs of providing adequate services to their growing populations. The key constraints have been inadequate property records, the structure of the real estate taxes, and the inadequacy of user tariffs to defray the real operating costs of public services. While urban expansion has placed a rising financial burden on local authorities, an obsolete institutional and regulatory framework for local finance have hindered their ability to recover a fair share of rising urban property values that have mostly benefited the private sector. *Structural reforms of the responsibilities shared by national, regional*



*and local governments are needed to address this problem. Leveraging the high value of urban land and capturing a fair share of the appreciation of land values created by public investment are key to finance infrastructure and deliver basic public services to poorer communities.*

Addressing the pressures of rapid urbanization in the MEWA countries will require major political will. In several countries, the hardships created by deficient and lagging public services and dilapidated living environments compound the exclusion caused by unemployment, income disparities and widespread corruption. The 2011 revolutions, and the continued turmoil that ensued, were started in cities by unemployed youth and educated students who were joined by lower and middle-income demonstrators. The civil unrest brought to the forefront of national development agendas the issues of employment generation, equitable distribution of the benefits of growth, participation in governance and social inclusion. Given the fact that MEWA countries will be looking

to double the current employment by 2020 in order to absorb the unemployed and the new entrants in the labour force, they have to give their cities the resources needed to become competitive in a globalized economy, attract private investment, and enhance their image as tourism destinations. Legal and bureaucratic impediments, corruption in urban administrations, and, particularly, the politicization of decision-making, are key constraints impeding reforms.

The success of cities as engines of growth will depend on their functional efficiency and performance. To finance their development, they must capitalize on the high cost and rapid appreciation of urban land and use it as an asset that can be tapped to finance urban improvements, including the construction and upgrading of infrastructure and affordable housing. While the degree of autonomy city governments will achieve is still unclear, providing cities with the resources to deliver the infrastructure and public services needed to support the economic agenda should be a priority.



Photo: Spiterman



# VIII. NORTH AMERICA



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Photo: Harshil Shah

## 8.1 Introduction

Basic local services, referred to as public infrastructure services in North America, are often described as the ‘backbone’ of the economic systems and quality of life in Canada and the United States (U.S.). While access to basic public services is not a key challenge in the region, after decades of under-investment, both countries are confronted by significant ‘infrastructure deficits’ – backlogs of delayed repairs and construction needed to sustain and improve current infrastructure, and of strategic investments in additional infrastructure to support future growth. These infrastructure deficits are sometimes visible to the general public in the form of crumbling roads and crowded buses, subways, and roads, but also take the less visible form of decaying drinking water and sanitation systems, or the structural deterioration of bridges. Without significant reinvestment in public infrastructure systems, local leaders in the region warn that it will become increasingly difficult to sustain economic growth and quality of life.

The challenge goes beyond traditional mechanisms for delivering basic local services and financing public infrastructure services. On their own, local



**Both countries are confronted by significant ‘infrastructure deficits’.**



governments in the U.S. and Canada lack the revenue tools to rebuild infrastructure. Local governments in both countries own and operate the largest shares of their nations' infrastructure, but collect much smaller shares of the total tax dollars paid. Given the scale of reinvestment needed, the involvement of provincial, state and national governments, and the private sector, will be required. Amid constrained resources at all levels, particularly emerging from the recent recession, reinvestment will

also have to better integrate infrastructure systems (transportation, water, sanitation, solid waste, and energy). This reinvestment will need to be sustainable – integrating the goals of economic growth, responsible stewardship of resources, and equity in access to, and bearing the costs of, infrastructure. The public policy challenges loom large for both nations, but must be addressed in order to enrich quality of life and maintain the region's international competitiveness.



Photo: S J Pinkney

## 8.2 Institutional frameworks

### Federal systems

A defining feature in North America is that the provision, governance, financing, and challenges confronting basic local services are nested within complex federal systems. The U.S. and Canada are constitutional democracies employing systems of federalism that devolve authority in varying degrees across basic local service arenas. Federalism refers to a system of government where authority and responsibility are constitutionally separated between a central or national government and sub-central or sub-national governments.

The U.S. government structure is composed of one federal government, 50 states, four unincorporated organized territories, and 89,476 local governments: counties, municipalities and townships, special districts, and school districts. Canada has one federal government, ten provincial and three territorial governments, and almost 4,000 local governments. Both countries provide constitutional authorities and protections to states and provinces. However, local governments in both countries are often referred to as “creatures” of states and provinces, in that they typically enjoy only those powers



**The U.S. and Canada are constitutional democracies employing systems of federalism that devolve authority in varying degrees across basic local service arenas.**



**The costs of building and maintaining some infrastructure services across these large geographies and populations often lead to natural monopolies.**

and authorities delegated to them by the states and provinces.

Although Canada is a highly decentralized country in terms of federal and provincial powers, it is much more centralized with respect to provincial powers. Each province has separate legislation governing its municipalities, and there is variation from province to province. In general, in terms of basic local services, Canadian localities are responsible for delivering roads and transit, water and sanitation, solid waste, and planning. However, the provinces and the federal government are often active in planning, financing, and regulating infrastructure. Electricity is mostly the purview of provincially owned and operated public enterprises, as is gas in some provinces. In other provinces, gas is provided by publicly-regulated private monopolies. Broadband in almost all provinces is provided by publicly-regulated private monopolies.

Similarly, in the U.S., the assignment of service responsibilities to the state versus the local level can vary widely across states, depending on constitutional and statutory provisions. The federal government generally plays a much smaller overall role in direct service delivery than do state and local governments, but the federal government often has important influence over service delivery through federal grants, loans, and cost sharing that come with various restrictions, as well as through federal laws and regulations. State and local governments have nearly exclusive responsibility for a number of services, including transportation and transit, solid waste management, water and sanitation, and transit, although the federal government plays some regulatory and fiscal roles in all of these services. Electricity, gas and broadband are more often the purview of private sector providers, with some provision provided by publicly owned and operated enterprises, but the federal and state governments have significant regulatory authority.

### Scale and geography

North America's complex federal systems are not the only challenges to the investment and construction of public infrastructure. In both countries, scale and geography complicate all phases of basic service provision. Both countries are large, with U.S. governments providing services to more than 300 million people and Canadian governments to 33 million people across great distances. The costs of building and maintaining some infrastructure services across these large geographies and populations often lead to natural monopolies, operated by a mix of public and private enterprises and, increasingly, public-private partnerships. Regional, multi-jurisdictional special authorities and districts are common in transportation, transit, water and sanitation, and solid waste.

### Policy challenges

Beyond the inherent challenge posed by decentralized federal systems and geographical scale, a number of key challenges, addressed in more detail later in the chapter, are currently confronting local governments in North America in the provision of basic services:

- **Aging infrastructure and deferred maintenance issues** that present policy-makers with difficult choices between maintaining current infrastructure and more costly replacement at a later date;
- **Demand for new infrastructure** fueled by the continued population growth and expansion of urbanized areas;
- Identifying and implementing **financing and pricing mechanisms** that are sustainable over time, politically viable, and that more effectively reflect the full costs—construction, operation, and maintenance of infrastructure; and,
- **Equity and access** which, while relatively lesser in scope in comparison

to other regions, nevertheless present challenges in terms of variation in service quality across jurisdictions and, in some notable exceptions, access to basic services for specific communities.

An overarching issue affecting the above challenges is how to address planning and sustainability. With their highly developed economies and systems of governance, the U.S. and Canada enjoy long histories of significant investment in infrastructure. However, as highly developed systems, both countries tend to organize and deal with basic services in discrete silos—trans-

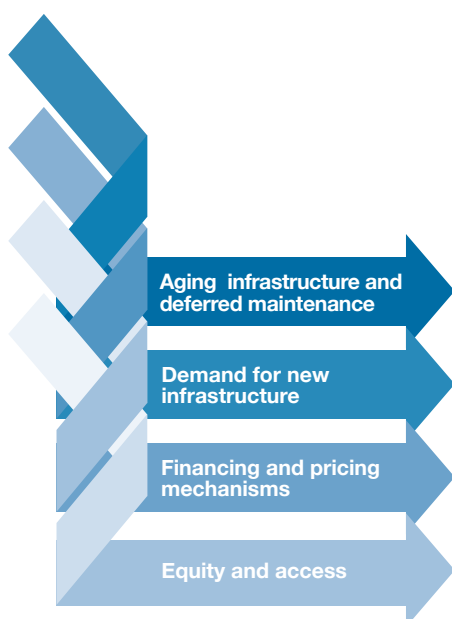
portation and transit; water and sanitation, solid waste, energy, etc. Planning largely happens within each silo and integrated approaches across infrastructure investments are rare, but there is recognition in both countries that other approaches are needed to ensure the sustainability of infrastructure.<sup>1</sup>

Management and financing models in the region are heavily influenced by institutional frameworks and governance models in both countries, and for this reason these issues are dealt with together in this report.



**Both countries tend to organize and deal with basic services in discrete silos.**

### Challenges in the provision of basic services



<sup>1</sup> Task Committee on Planning for Sustainable Infrastructure (2010).



## 8.3

### Governance, management and financing models

Spending on basic services is difficult to accurately measure in the region because of the challenges of federalism, geography and scale. While service provision is highly decentralized, significant funding and spending occurs at federal and provincial/state levels. The spending figures provided below are derived from federal data sources and show spending on basic services in Canada and the U.S.

In terms of local government expenditure, as of 2007, the most recent year for which comparable data are available, total Canadian local government expenditure was CAD 69.3 million, of which 25% was for capital expenditures; total U.S. local government expenditure was USD 697.7 million, of which 13% was for capital expenditures. Canadian and U.S. data that are roughly comparable are presented in Table 8.1 below.

One measure of publicly-owned infrastructure spending in Canada is the value of non-financial assets owned by the three levels of government.<sup>2</sup> Statistics Canada provides estimates of the value of non-financial assets in millions of Canadian dollars from 1991 to 2012. As of 2011, local governments owned just over half of all



government-owned non-financial assets in Canada. The per capita value of local government non-financial assets in 2011 was CAD 10,960, in comparison to the 1991 value (adjusted for inflation) of CAD 7,013, indicating modest growth in publicly-owned infrastructure spending over the 20-year period.

Until recently, Canadian federal grants to municipalities for local infrastructure investment have been sporadic. The latest round began modestly in 1993.<sup>3</sup> Up through 2011-12, there were three distinct federal programs for funding local infrastructure:

- Gas Tax Fund – Half the revenue from the federal tax of CAD 0.10 on each liter of gasoline sold in Canada is sent to municipalities to be used for environmentally sustainable capital projects. In 2011-12, this amounted to CAD 2.206 billion.
- P3 Fund – To be used for local capital projects involving public-private partnerships (CAD 275 million).
- Building Canada Fund – A federal fund for major projects to which municipalities apply for funding and provincial governments receive varying allocations (CAD 974 million).<sup>4</sup>

The fiscal crisis in 2008 prompted the federal government to agree that granting funds for immediate infrastructure investment at the municipal level was the best way to provide much-needed economic stimulus. There is considerable evidence to suggest that this policy met its objectives, in that it likely created at least 100,000 new jobs. The Conservatives eventually made permanent and enhanced the major federal infrastructure programs initially launched by Liberal governments. The 2013-14 federal budget continued a trend of increasing federal investment in local infrastructure. The budget renewed expiring infrastructure

funds for an additional 10 years – a significant extension of federal funding, including a 2% indexing of the purchasing power of the federal Gas Tax Fund transfer program. The new and enhanced federal investment promises to deliver CAD 5 billion annually in local government infrastructure over a minimum of 10 years, with more than half provided through permanent, flexible federal transfer programs. The federal investment represents approximately one-third of municipal capital budgets. The 2013-14 federal budget renewed the P3 and Building Canada Funds for the next ten years.<sup>5</sup>

In comparison, capital outlays by the federal government account for nearly USD 91 billion, or approximately 13% of total local spending in the U.S. However, much of the local spending on infrastructure occurs outside of the definitions of capital spending used by the U.S. Census. In 2006-07, significant infrastructure investment, including capital outlay, was made in surface transportation (USD 50 billion, 7% of total spending), transit (USD 35 billion, 5%), water (USD 49 billion, 7%), sanitation (USD 52 billion, 8%), solid waste management (USD 16 billion, 2%) and public utilities (USD 100 billion, 14%).<sup>6</sup> The U.S. Congressional Budget Office (CBO) estimates the percentage of total capital spending at around half of total spending. The CBO also estimates that local and state governments in the U.S. are responsible for approximately three-quarters of all investment in infrastructure, with the federal government making up the remaining quarter. On an annual basis, these expenditure totals adjusted for inflation and shares have not varied much in recent years. In fact, given rising costs of infrastructure maintenance and construction, there is considerable concern that current spending levels in the U.S are not keeping up with demands and needs.

<sup>2</sup> Values reported are after allowing for depreciation.

<sup>3</sup> Bojorquez et al (2009), p. 440.

<sup>4</sup> Canadian Office of Parliamentary Budget Officer (2013).

<sup>5</sup> <http://www.budget.gc.ca/2013/doc/plan/chap3-3-eng.html>

<sup>6</sup> See <http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/119xx/doc11940/11-17-infrastructure.pdf>

**Table 8.1 Local government spending on infrastructure in North America**

|   | Canada       | U.S.A.        |
|---|--------------|---------------|
| <b>Population</b>                                 | 33,115,000   | 301,300,000   |
|   | (CAD)        | (USD)         |
| <b>Total Expenditure</b>                          | \$69,305,803 | \$697,683,221 |
| General/Current Expenditure                       | \$52,086,289 | \$415,365,064 |
| Capital Expenditure                               | \$17,219,514 | \$90,884,506  |
| <b>Urban Transport (Highways, Roads, Streets)</b> |              |               |
| General/Current Expenditure                       | \$9,953,663  | \$35,355,884  |
| Capital Expenditure                               | \$5,618,756  | \$14,746,489  |
| <b>Transit</b>                                    |              |               |
| General/Current Expenditure                       | \$2,408,281  | \$35,608,210  |
| Capital Expenditure                               | \$358,417    | N/A           |
| <b>Sanitation Collection and Disposal</b>         |              |               |
| General/Current Expenditure                       | \$4,206,140  | \$37,237,345  |
| Capital Expenditure                               | \$2,337,332  | \$15,139,019  |
| <b>Solid Waste/Garbage Collection</b>             |              |               |
| General/Current Expenditure                       | \$2,932,499  | \$14,570,257  |
| Capital Expenditure                               | \$568,930    | \$1,346,672   |
| <b>Water Supply</b>                               |              |               |
| General/Current Expenditure                       | \$4,594,728  | \$49,140,868  |
| Capital Expenditure                               | \$2,395,327  | N/A           |
| <b>Electricity/Gas Supply</b>                     | N/A          | \$67,437,167  |

Sources: U.S. Census Bureau, Census of Governments and Statistics Canada. Note: local services included in each category, the definition of each category, and the delineation of general/current expenditures and capital expenditures can vary significantly between the two countries, and disaggregating the data for local governments is largely infeasible. The authors caution against drawing conclusions from comparisons of spending levels between the two countries. Comparisons are more appropriate within countries, across the categories.

## Urban transportation and transit

North American local and state/provincial governments have lead responsibility for most transportation and transit infrastructure, but the federal governments have important regulatory and fiscal influence roles. In the U.S., the federal government often plays a significant role in multi-jurisdictional projects and planning. Although this role of the U.S. federal government has changed over the past century, it currently includes investment in new infrastructure, maintaining existing transportation infrastructure, and regional and multi-jurisdictional coordination. In Canada, these functions are generally performed by provincial governments. No single level of government has the fiscal capacity to cover the full range of transportation needs, resulting in intergovernmental governance and funding structures. However, in part due to the complexities of these arrangements, neither country has a cohesive national transportation policy or plan.

### **Surface transportation (roads, highways, bridges)**

In Canada, highways are provincial responsibilities, and there is no Canadian equivalent of the U.S. Interstate Highway System, nor any regular federal presence in the creation and maintenance of urban expressways. Most of Canada's roads and bridges are owned and operated by local governments. For example, in the largest province, Ontario, "municipalities are responsible for over 140,000 kilometers of roads and more than 15,000 bridges and large culverts. In comparison, the provincial highway system includes 16,000 kilometers of roads and 4,750 bridges and large culverts."<sup>7</sup> Transportation planning for all of Canada's major cities must involve the relevant provincial government. Municipal prominence is even greater in urban areas, with the exceptions of provincial highways and major expressways.

The only municipality-owned and operated major urban expressways in Canada are Toronto's Don Valley, Gardiner, and Allen expressways; Hamilton's Lincoln Alexander and Red Hill Valley expressway; and Windsor's E.C. Row expressway, all of them in the province of Ontario.

Most urban roads and bridges in Canada are financed, built and maintained by municipalities, and federal and provincial levels of government provide minimal financial assistance. Statistics Canada tracked local government spending on roads from 1988 to 2008.<sup>8</sup> The data indicate that capital spending started increasing dramatically in 2005, the year that the federal government enacted its policy of sharing gas-tax revenues with local governments (see Box 8.1).

Depending on the financial policies of each municipality, capital costs are paid by varying combinations of accumulated reserves and long-term borrowing. Many new municipal roads, however, are built through public-private partnerships. In both Canada and the U.S., most new suburban areas (subdivisions) are built by developers as a result of an agreement with the relevant municipality. The agreements usually require the developer to build the public infrastructure (roads, water-supply pipes, and sanitation) and, as the project nears completion, give ownership to the municipality. There are no national data on the value of such developer-built infrastructure networks.

In contrast to Canada, the U.S. has an extensive federal Interstate Highway System, and greater shared responsibility for surface transportation. Local, state, and federal governments play a variety of roles, from the raising of revenues, to spending on the construction and operation of transportation systems.<sup>9</sup>

As in Canada, most U.S. local roads fall under the jurisdiction of local governments.<sup>10</sup> However, while local governments have most of the authority over local roads,



**Neither country has a cohesive national transportation policy and plan.**

<sup>7</sup> Ontario Provincial-Municipal Roads and Bridges Steering Committee (2012), p. 4.

<sup>8</sup> Statistics Canada, 385-0024.

<sup>9</sup> Gifford (2012), p. 594–623.

<sup>10</sup> The states of Virginia, Delaware, North Carolina, and West Virginia have county roads under the purview of each state's department of transportation (DOT). See page 1 and figure 1 of [http://www.virginiadot.org/business/resources/local\\_assistance/GMU\\_Devolution\\_Study\\_Final.pdf](http://www.virginiadot.org/business/resources/local_assistance/GMU_Devolution_Study_Final.pdf) as well as an older study that mentions that Alaska also used to have this structure: <http://ntl.bts.gov/ib/37000/37000/37019/98-r29.pdf> for more history.



### Box 8.1 Surface transportation examples in Canada

#### ***Expressways in Toronto, Ontario***

In 1993, the then Premier of Ontario announced that, in order to help relieve gridlock on Toronto's roads, a public-private partnership would build a new toll-financed East-West expressway around the north part of Toronto (Highway 407). In 1994, the Ontario government announced that Canadian Highways International Corporation had won the contract to build and develop the new road. By 1996, the first leg of the road was complete, and in 1997 new transponder and photo-imaging systems enabled automatic billing of tolls to car owners without any toll booths in the system. The Progressive Conservative provincial government fully privatized the expressway in 1999 but, in 2011, the Liberal government announced that an eastward expansion of the highway would be built by 2020, and that it would remain under public ownership.

The Gardiner Expressway in Toronto offers another example of a pressing road infrastructure issue facing a local government in Canada. The current elevated structure is in need of a complete overhaul, and its location is challenging in that it separates downtown Toronto from the Lake Ontario waterfront. Toronto is faced with either demolishing it or burying it, but both options are costly and would have significant implications for downtown Toronto.

#### ***Electric Vehicle Infrastructure in Vancouver, British Columbia***

The City of Vancouver (Canada) is conducting a field test of charging infrastructure for plug-in electric vehicles (PEVs) to reduce greenhouse gas (GHG) emissions, increase electrical grid resilience and integrate renewable energy. The city will lease four pre-commercial PEVs to test some 70 charging stations that will be installed and then monitored through complete system testing. The stations will be installed in residential areas, at large employment sites, fleet garages, and public sites such as supermarkets and entertainment venues. Level 1 (110V) and 2 (220V) charge stations will be installed to test a range of charging approaches and will allow charge times of 12-14 hours or 6-8 hours, respectively. During the testing period, the city will evaluate the draft guidelines for Canadian charging infrastructure and the new City of Vancouver building and electrical codes for charging infrastructure. They will also identify and analyze system impacts and opportunities for electric utilities. If the field test is successful, the city will install at least 250 additional charging stations by 2020, which could reduce GHG emissions by approximately 400 tonnes of Co<sub>2</sub>e (carbon dioxide equivalent) per year. This field test is part of a highly integrated province-wide test that is linked with national efforts and with the U.S. Federal Government's PEV infrastructure program.

Sources: <http://news.ontario.ca/mto/en/2011/03/highway-407-east-extension-to-be-completed-by-2020.html>

[http://www.waterfronttoronto.ca/explore\\_projects2/the\\_gardiner\\_expressway/the\\_gardiner\\_ea\\_terms\\_of\\_reference](http://www.waterfronttoronto.ca/explore_projects2/the_gardiner_expressway/the_gardiner_ea_terms_of_reference).

the funding comes primarily from other sources, like state and metropolitan/regional planning authorities/organizations. This creates a hybrid system where local authority is heavily interlinked with the U.S. inter-governmental system. Research conducted by the National League of Cities (NLC) reports that local governments have sole or shared responsibility for roads, streets, bridges, and lighting, with 56% reporting that they share functional responsibility for these services with other local governments, state governments, and the federal government.<sup>11</sup> In the case of cities, 88% report that they have primary responsibility for roads and bridges in their jurisdictions.<sup>12</sup>

In metropolitan areas, three entities exert influence on federal spending and project implementation: 1) state transportation agencies, 2) public transportation operators (transit agencies), and 3) metropolitan planning organizations (MPOs), required by the Federal-Aid Highway Act of 1962 in any urbanized area with a population greater than 50,000. MPOs are primarily made up of local government representatives from the region and have autonomous decision-making authority when it comes to transportation planning and allocation of federal funding for metropolitan regions. In contrast, counties and small towns outside of U.S. urbanized areas participate in state-created regional transportation planning organizations.

Local officials have the ability to select projects for their regions using federal funds; however, this varies from state to state, with some states granting MPOs increased authority.<sup>13</sup> Current federal law requires states and local governments to produce Transportation Improvement Plans (TIPs) to receive federal funding, and local governments play the key role in ensuring public participation in determining the needs and priorities used to select projects. Local governments also assume responsibility for project development and construction.

In terms of governance models, federal, state, regional/metropolitan and local governments are intertwined in the governance of transportation systems. The governance models are largely dictated by issues of scale in population, geography, and financing. The predominant governance model in metropolitan and urbanized areas is a quasi-public, quasi-private authority/agency that governs the provision of the service under federal and state guidance and funding requirements, with varying degrees of local input and ability to shape transportation plans. For smaller, more rural local governments, transportation system governance typically rests in the hands of counties or a state transportation department. More recently, public-private partnerships (PPPs, more recently referred to as P3s in the two countries) have been used as a way to reduce public-sector spending on the construction, operation and maintenance of highway facilities. PPPs are discussed below as a model of innovative financing.

Local government revenues account for one-third of all U.S. surface transportation funding, with both traditional and direct non-traditional revenue generating approaches in use. These include general fund appropriation, bond (capital debt) issue proceeds, investment income, motor fuel and vehicle taxes, other taxes and fees (including experiments in congestion pricing), hotel or rental car taxes that are directed to transportation,<sup>14</sup> property taxes, and tolls.<sup>15</sup> Of these, local general fund appropriations represent the largest single source. With recent declines in federal and state budgets, an increasing number of local county and municipal governments are enacting new taxes to generate revenue for transportation needs. "These often require local referendum and result in increases to the local sales tax, which can be leveraged in the municipal bond market".<sup>16</sup>

A commonly used finance innovation in the transportation arena is the issuance of debt



**Governance models are largely dictated by issues of scale in population, geography, and financing.**

<sup>11</sup> Hoene et al (2012).

<sup>12</sup> National League of Cities (2012).

<sup>13</sup> Shoup and Lang (2011), p. 46.

<sup>14</sup> AASHTO (2012).

<sup>15</sup> List is from <http://utcm.tamu.edu/tfo/highway/>; for more details on each, see: <http://utcm.tamu.edu/tfo/highway/summary.stm>.

<sup>16</sup> Ibid.





**Public private partnerships and municipal infrastructure banks have been explored as ways to reduce public-sector costs and leverage private sector capital to construct, operate, and maintain transportation facilities.**

(bonds) to pay for larger transportation investments, which are paid back over time using existing or new revenue sources that are often enhanced by the investments. This financing approach is more commonly applied to individual projects than to multi-project transportation programs. State government authorization is often required in order for local governments to utilize debt financing.<sup>17</sup>

More recently, public private partnerships and municipal infrastructure banks have been explored as ways to reduce public-sector costs and leverage private sector capital to construct, operate, and maintain transportation facilities. These emerging financing strategies combine public and private capital and equity, typically allow private sector operators to finance and maintain systems by charging usage fees, and, in the case of public private partnerships, are assumed to

help accelerate project delivery. The U.S. Department of Transportation Federal Highway Administration (FHWA) reports that 23 U.S. states and one U.S. territory have enacted statutes that enable local governments to use these approaches for the development of transportation infrastructure (see Box 8.2).

#### ***Urban/mass transit (bus, rail)***

As with roads, there is no dedicated Canadian federal government urban transit program, though the federal government funds particular transit investments through its recent infrastructure programs.<sup>18</sup> All provinces provide some form of capital funding for transit infrastructure, which includes the purchase of new buses, but the formulas vary dramatically from province to province. In Toronto, Montreal, and Vancouver (Canada), commuter/fixed rail



#### **Box 8.2 Public-Private transportation partnerships in the U.S.**

The city of Reno, Nevada issued USD 111.5 million in bonds that are backed by hotel room and sales taxes to complete the Reno Transportation Rail Access Corridor (ReTRAC) project. The PPP involved Reno creating partnerships to complete the project. Instead of using the traditional design-bid-build, there was an estimated 18-months schedule savings through use of design-build PPP, where the private sector was responsible for design and construction with input from a city task force. The project construction started in 2002 and finished in 2006, and Reno repaid the original USD 50.5 million loan, with interest, in May of 2006.

The City of Chicago, Illinois Department of Streets and Sanitation operated and maintained the Chicago Skyway Bridge—a 7.8-mile toll road built in 1958 to connect the Dan Ryan Expressway to the Indiana Toll Road. In 2005, the city of Chicago leased the operations and maintenance of the Skyway Bridge to the Skyway Concession Company, LLC (SCC) for 99 years. The operating lease provided Chicago with USD 1.83 billion, while the SCC has the right to all toll and concession revenue and responsibility for all costs of the skyway. This agreement between SCC and the city of Chicago was the first privatization of an existing toll road anywhere in the U.S.

<sup>17</sup> The description utilizes information from <http://utcm.tamu.edu/tfo/highway/summary.stm#if>.

<sup>18</sup> For a recent plea for more systematic federal involvement, see Hjartarson et al (2011), available at: <http://www.mowatcentre.ca/research-topic-mowat.php?mowatResearchID=38>.

Sources: [http://www.fhwa.dot.gov/ipd/project\\_profiles/nv\\_retrac.htm](http://www.fhwa.dot.gov/ipd/project_profiles/nv_retrac.htm); <https://www.reno.gov/modules/showdocument.aspx?documentid=6840>; <http://www.chicagoskyway.org/>; [http://www.fhwa.dot.gov/ipd/project\\_profiles/il\\_chicago\\_skyway.htm](http://www.fhwa.dot.gov/ipd/project_profiles/il_chicago_skyway.htm).

transit systems are owned and operated by provincial-government agencies.<sup>19</sup> TransLink, the Vancouver-based agency, also owns and operates the city's bus system. In Toronto and Montreal, the subway and bus systems are owned and operated by municipal special-purpose bodies, but the municipal councils of the cities of Toronto and Montreal are effectively in control

and ultimately accountable for their performance. Ottawa, Calgary, and Edmonton (Canada) each have some form of light-rail transit (LRT) in addition to a large network of buses. All other Canadian cities only provide bus systems (see Box 8.3).

As with roads, capital investment in public transit in Canada has increased



### Box 8.3 Public transit examples in Canada

#### ***TransLink in Vancouver, British Columbia***

TransLink's official name is the South Coast British Columbia Transportation Authority. It is charged with overseeing roads and public transit in the Vancouver metropolitan region. Since 2007, it has been governed by a nine-person board of directors chosen by the Mayors' Council on Regional Transportation from a panel of 15 nominated by the provincial government and select local organizations, including the Vancouver Board of Trade. The council comprises the mayors of 21 municipalities and the chief of a First Nation<sup>20</sup> served by the system. Each mayor or chief has one vote for every 20,000 people he or she represents. The board is charged with operating the overall system, but the Mayor's Council must approve transportation plans, levels of municipal funding, and borrowing limits. In addition to drawing on local funds, TransLink itself has direct access to funds from taxes on parking lots and gasoline sold in the area.

#### ***The Yards at Fort Rouge, Winnipeg***

The City of Winnipeg is working in partnership with a private development company, GEM Equities Inc., to develop the city's first Transit-Oriented Design (TOD) community on a former rail yard close to Winnipeg's downtown core and adjacent to the city's new Southwest Transit Corridor. The sustainable transportation component of this project will entail the construction of the new Jubilee Transit Station, transit access routes, and active transportation paths. This project will also include the installation of a geothermal system to heat and cool the new transit station, and over 1,000,000 square feet of residential space. This 900-unit infill project is on a former brownfield site adjacent to the city's new dedicated transit line and will have transit stations at either end of the development. As part of its development plans, GEM Equities will build the Jubilee Transit Station with new roadways that allow pedestrian and cycling friendly access to residences, and transit stations and dedicated pathways to access the adjacent Winnipeg Active Transportation Pathway. It is expected that the Yards at Fort Rouge project will lead to a 13.21% reduction in vehicle kilometres traveled (6,714,240 km).

<sup>19</sup> For details, see Sancton (2011), p. 54 and 60-61.

<sup>20</sup> First Nation is the common term in Canada to refer to the Indian peoples in Canada, both Status and non-Status Indian as registered under the Indian Act of 1876. Although the term First Nation is widely used, no legal definition of it exists. The Canadian Constitution recognizes three groups of Aboriginal people: Indians, Métis and Inuit. These are three separate peoples with unique heritages, languages, cultural practices and spiritual beliefs. See <http://www.aadnc-aandc.gc.ca/eng/1100100014642/1100100014643> for more details.

dramatically since 2005, in the framework of federal gas-tax sharing and other federal infrastructure programs. For Toronto, the federal government has committed CAD 5 billion in capital funding for transit, and the provincial government CAD 11.5 billion. The availability of new funds has sparked a political debate about the kinds of investments that are needed to enhance public transit and ease traffic congestion.<sup>21</sup> One side argues for more subways; the other for new LRT investment to replace buses and existing streetcars. The most comprehensive plan for public transit for the entire region has been developed by Metrolinx, an agency of the Ontario government. The plan emphasizes LRT over subways, in part because LRT is cheaper. But even this plan will require about CAD 34 billion more than federal and provincial governments have already committed. How these funds will be raised is another source of debate and political conflict. The following are the main options:

- A regional sales tax. Such a tax covering an area smaller than a province does not currently exist in Canada.
- A parking space levy. Owners of parking

lots might be expected to pay approximately CAD 1 per day per parking spot.

- A regional fuel tax.
- Tolls on High Occupancy Vehicle (HOV) lanes of major expressways to be charged only to single-occupant vehicles.<sup>22</sup>

These revenue sources could, of course, be supplemented by revenues from the existing revenue sources of the provincial and/or municipal governments (see Table 8.2).

Many U.S. transit systems are operated by separate authorities. According to NLC research, primary responsibility falls to regional and special authorities (39%), but cities are prevalent (32% of local governments report that cities have primary responsibility).<sup>23</sup> As of 2009, public transit in the U.S. was provided by 7,960 different organizations, ranging from large multi-modal systems to single-vehicle service providers.<sup>24</sup> The largest transit agency, the Metropolitan Transit Agency of New York City (U.S.), carried passengers on 3.2 billion trips for 11.9 billion miles; the Chicago, Los Angeles (U.S.), and Washington D.C. (U.S.) systems are the next largest. As of 2008, there were 667 public agencies involved in operating

<sup>21</sup> For an account of the early stages of this debate, see Horak (2012), p. 234-8. A U.S. government report from the Federal Highway Administration refers to Highway 401 in Toronto as "the busiest highway in North America." [http://international.fhwa.dot.gov/pubs/pl07027/llcp\\_07\\_02.cfm](http://international.fhwa.dot.gov/pubs/pl07027/llcp_07_02.cfm)

<sup>22</sup> Toronto Region Board of Trade (2013).

<sup>23</sup> National League of Cities (2012).

<sup>24</sup> American Public Transportation Association (2011), p. 7. [http://www.apta.com/resources/statistics/Documents/FactBook/APTA\\_2011\\_Fact\\_Book.pdf](http://www.apta.com/resources/statistics/Documents/FactBook/APTA_2011_Fact_Book.pdf).

**Table 8.2 Comparing transit fares in New York (U.S.) and Montreal (Canada)**

|   | Base Fare* | Reduced Fare* | 30-Day Unlimited/<br>Monthly* | Monthly Reduced* |
|---|------------|---------------|-------------------------------|------------------|
| <b>New York City Metropolitan Transit Authority (MTA)</b> | USD 2.50   | USD 1.25      | USD 112                       | Not available    |
|   | CAD 2.56   | CAD 1.28      | CAD 114.51                    |                  |
| <b>Société de Transport de Montréal (STM)</b>             | CAD 3.00   | CAD 2.00      | CAD 77                        | CAD 45           |
|   | USD 2.93   | USD 1.96      | USD 75.31                     | USD 44.01        |

\*Advertised fare amount for 2013; for relative adjustment, USD 1 = CAD 1.0224, April 2013. Reduced fare eligibility: New York City customers who are 65 years of age or older or have a qualifying disability, Montreal customers who are aged 6-17 years and 65 years and older for base fare, but monthly reduced fare also includes customers aged 18-25 years old.

transit in urbanized areas and 1,396 in rural areas.<sup>25</sup>

The U.S. transit governance model is characterized by a mix of local public agencies and authorities. “Most public transportation systems are self-governing, stand-alone entities within some form of local or regional government structure. Most have their own Board of Directors and operate as quasi-private enterprises. A large portion of transit agency budgets are covered through dedicated revenue sources that are, in comparison to many industries, stable, and include a mix of local, state and federal sources.”<sup>26</sup> For example, the U.S. recently enacted federal transportation law—Moving Ahead for Progress in the 21st Century (MAP-21)—authorizes a new federal public transit program of USD 10.6 billion for 2013 and 10.7 billion USD for 2014. However, the majority of public transit will be delivered by local agencies.

U.S. transit systems traditionally have multiple sources of financing, the most significant being fares and government subsidies. However, for most public transit authorities, fare revenues typically do not cover full operating and maintenance costs, given ridership and distances covered in many systems. Consequently, government subsidies (non-fare revenues, such as local tax revenues or transfers from other levels of government) are relied upon to make up the difference. Local and regional sales taxes are a common source of local transit financing.<sup>27</sup> In addition, a limited amount of revenue may come from advertising, land development, income from stores and vendors, parking fees, and leasing tunnels and rights-of-way to carry fiber optic communication lines.

Local governments do receive assistance for capital financing of transit. As of 2009, the federal government provided 42%, while state governments provided 14%, leaving local government and transit sources to provide 44%.<sup>28</sup> The financing approaches are similar to those used for roads. U.S.

transit systems have different sources of capital financing, including tax-exempt bonds (debt); taxable bonds (debt); equity investors; vendors and lessors; commercial banks; and governmental capital sources (see Box 8.4).

## Water and sanitation

Provision of water and sanitation (referred to most commonly as sewer and wastewater systems) in the U.S. and Canada is primarily done through local governments. In the U.S., most provision is local, with federal and state governments playing a significant role in terms of regulation and, to a lesser degree, funding. In Canada, authority for water systems is mostly held at the provincial level, but most water services are delivered by local governments. Water systems in the U.S. and Canada are often governed through multi- and sub-jurisdictional special authorities and districts. Financing mechanisms include a mix of fare- and rate-based systems, local taxes, debt-financing (particularly for capital investments), and funding provided through provincial/state and federal governments. Access to basic water and sanitation services is not an issue for the overwhelming majority of people in the region.

U.S. local governments have nearly exclusive responsibility for water sanitation, with the federal and state governments playing a regulatory and fiscal role. Survey research by the NLC indicates that municipal governments are the sole providers of water, purification and sewage treatment. Cities carry the primary responsibility for 77% of municipal drinking water systems and 79% of sanitation systems.<sup>29</sup> A recent U.S. Census report on state and local government finances from 2009 to 2010 found that utility spending on water and gas supplies was dominated by local governments.<sup>30</sup>

Most community water systems in the U.S. are small in scale. The American Society of

<sup>25</sup> See: 2010 Status of the Nation's Highways, Bridges, and Transit: Conditions & Performance, <http://www.fhwa.dot.gov/policy/2010cpr/execsum.htm#c2t>

<sup>26</sup> American Public Transportation Association (2011), p. 2.

<sup>27</sup> American Public Transportation Association (2011), p. 4.

<sup>28</sup> American Public Transportation Association (2011), p. 11.

<sup>29</sup> National League of Cities (2012).

<sup>30</sup> Barnett and Vidal (2012), p. 4.



#### Box 8.4 Transit financing strategies in the U.S.

Beyond fare revenues, **sales taxes** are the most common source of funding for local and regional transit services. Transit operations using this strategy include Regional Transportation District, Denver, Colorado; Capital Metro, Austin, Texas; Athens Transit, Athens County, Georgia; Park City, Utah; and TransNet in the San Diego, California region.

**Employer or payroll taxes** are sometimes levied on the amount of gross payroll for employers in a jurisdiction. Although these may be levied within transit districts for the generation of revenue, a state revenue agency may administer them on behalf of the transit district, as in Portland, Oregon or the Transit Authority of River City in Louisville, Kentucky.

**Transportation Development Districts** are a form of community improvement or community facilities district that provides a means of raising funds specifically for transportation improvements. Districts raise funds through the issuance of bonds, which are generally supported by tax increment procedures or dedicated sales taxes, as in the City of Lenexa, Kansas; Knox County, Tennessee; and Kansas City, Kansas.

**Public Private Partnerships** are also becoming more common in U.S. public transit, including the Eagle Public Private Partnerships (PPP) programs in Denver, Colorado; Metro Transit in Minneapolis, Minnesota; the Portland Metropolitan Area Express (MAX) Airport Extension in Portland, Oregon; and the Bay Area Rapid Transit - Oakland Airport Connector in California.

#### ***Dallas Area Rapid Transit, Dallas and Fort Worth, Texas***

The Dallas Area Rapid Transit (DART) is a regional transit authority in the Dallas-Fort Worth region. The system connects Dallas and 12 surrounding cities to DART rail, the Trinity Railway Express (TRE) and bus services, covering over a 700 square-mile service area and serving more than 220,000 passengers daily. DART was created by voters in 1983 and funded with a one-cent local sales tax. Additional funding sources come from federal funds, investment incomes, short- and long-term financing and fare revenues. DART also manages the regions' high occupancy vehicle lanes and paratransit services for those who are mobility impaired. DART partners with the Fort Worth Transportation Authority to jointly operate and manage the TRE, which links the corridor of downtowns Dallas and Fort Worth and the DFW International Airport. DART is planning for a 93 mile extension of their lines by 2019. In addition, DART's bus fleet is currently undergoing a transition to compressed natural gas (CNG) which will help them meet the region's clean city goals.



Civil Engineers' Infrastructure Report Card reported that, in the U.S., there are approximately 53,000 community water systems, and the vast majority (83%) serve 3,300 or fewer people, providing water to just 9% of the total U.S. population served by all community systems. In contrast, only 8% of the 53,000 community water systems serve more than 10,000 people and provide water to 81% of the population served.<sup>31</sup>

Local government water and sanitation services are subject to federal and state regulations related to public health, environmental resource protection, and consumer rights protection. In addition, many states require their local governments to protect the watershed from which public water supplies are sourced.<sup>32</sup> In more rural areas, there are also private wells used for drinking water, and local government health departments, usually at the county level, inspect wells and provide limited water quality testing. In the U.S., 99% of the population has access to safe drinking water. For wastewater, local governments' responsibility for decentralized sanitation systems, like septic tanks, is often limited to issuing construction permits and conducting inspections, while health departments only play a role when public health problems occur due to septic system failures.

While local governments are primarily responsible for water service provision, governance models vary greatly, from city or county local governments to special purpose government units for water and sanitation. Increases in federal regulatory requirements and a decline in federal grant assistance have made the cost of running small water and sanitation systems prohibitively expensive for small local governments, resulting in an increased use of special purpose authorities, and divesture to the private sector or other larger local governments.

The rate setting and financial planning powers of local water utility governing boards depend on who provides the infrastructure. If the infrastructure is provided by the local government, then local officials hold these powers. If infrastructure is provided by a local water and sanitation authority, an inter-local agreement, a joint agency/commission/authority, or a metropolitan water and sanitation district, the powers typically rest with appointed boards of representatives from participating institutions. Finally, in some sanitary districts, an elected board of citizens residing in the district is responsible for governance of the service.

The variation in the type of authority that provides the infrastructure affects the power and authority of any individual local governments. For example, if a multi-jurisdiction special district/authority is providing water, a local government's power is limited by how many of its own local officials serve on the board/governing body. However, if instead a number of smaller water districts exist within the local jurisdiction, the local government will likely have greater control. As with U.S. transportation and transit, the predominant governance model for water provision is a quasi-public, quasi-private authority/agency. It is important to note that this model is different from a public private partnership because water is essentially a natural monopoly that is publicly subsidized and regulated much like a private enterprise.

In terms of financing, local governments, authorities, and districts may have the power to levy property taxes, issue general obligation and revenue bonds, establish rates and user charges, impose special assessments to recover costs of system extensions, establish developer agreements and contributed capital guidelines. The federal government is a significant funder of local water services. "Nevertheless, the physical condition of many of the nation's water treatment systems is poor due to a



**While local governments are primarily responsible for water service provision, governance models vary greatly.**

<sup>31</sup> <http://www.infrastructurereportcard.org/fact-sheet/drinking-water>

<sup>32</sup> This discussion borrows from Hughes and Lawrence (2007).



**In Canada and the U.S., a consensus is emerging that consumers should pay the “full cost” of services through some kind of metering system.**



#### Box 8.5 Water and sanitation in the U.S.

##### ***Integrated green infrastructure technologies in Milwaukee, Wisconsin***

Situated on one of the largest fresh water lakes in the world, the City of Milwaukee, Wisconsin recognizes the importance of maintaining and protecting the health of its water bodies by reducing non-point source pollution and sewage overflows. In response to federal wet weather regulations, the city has adopted green infrastructure strategies that meet federal standards while making progress toward the city’s larger sustainability agenda. Additionally, Milwaukee is one of the early adopters of the Integrated Municipal Stormwater and Wastewater Planning Approach Framework put forth by the Environmental Protection Agency, which is intended to facilitate the use of comprehensive, innovative technologies, such as green infrastructure, in previously isolated wastewater and stormwater management processes. Collaboration both among City of Milwaukee departments and regionally have assisted in keeping successful implementation of green infrastructure solutions moving forward.

##### ***Smart technologies in Dubuque, Iowa***

The City of Dubuque, Iowa is implementing a multi-million dollar Smarter Water project that will upgrade the city’s water system, harness innovative technologies, and empower citizens and businesses with the information and tools needed to significantly reduce water consumption. The project is part of Smarter Sustainable Dubuque, a public-private partnership between Dubuque and IBM Research, the division of IBM responsible for its “Smarter Planet” campaign. In Dubuque, IBM technology interfaces with the city’s system to process water consumption data and provide near real-time information on overall city water consumption. This informs residents of their water usage; provides more effective leak detection and notification; and increases the efficiency of water service provision in the city. Smarter Water will improve water infrastructure services and help the city achieve its sustainability goals.

lack of investment in plants, equipment, and other capital improvements over the years (see Box 8.5).<sup>33</sup>

To address capital investment, expansion, and/or improvements, which are often required by state or federal law, local governments use capital debt and reserve funds that are repaid through future tax and fee revenues, or else they obtain grant funds.<sup>34</sup>

Canada has a similar density of water-supply and sanitation systems, and even in isolated rural areas, piped water within residences is

almost universal. The Canadian water-supply and sanitation systems are almost universally provided by local governments.

Increasingly, in both Canada and the U.S., a consensus is emerging that consumers should pay the “full cost” of services through some kind of metering system. In 2006, 63.1% of Canadian residences were metered for water use, although the figure in Quebec was only 16.5%.<sup>35</sup> Despite such a consensus, federal and provincial politicians continue to provide subsidies for new water and wastewater

<sup>33</sup> <http://www.infrastructurereportcard.org/fact-sheet/wastewater>

<sup>34</sup> Hughes and Lawrence (2007).

<sup>35</sup> Environment Canada (2006).

capital expenditures, particularly since the early 2000s.<sup>36</sup> According to Statistics Canada, local governments have dramatically increased their capital spending on water and wastewater facilities in recent years as a result of federal gas tax sharing and other federal infrastructure grant programs (see Box 8.6).

In most Canadian cities, water-supply and sanitation systems are under the control of municipal government departments, even when the systems are largely or completely self-financing through user fees. Nevertheless, there have been cautious experiments in some cities with various forms of private involvement.



#### Box 8.6 Water services in Canada

##### ***Contracting out in Hamilton, Ontario***

In 1995, the Hamilton, Ontario municipal government contracted out the operation of both its water and wastewater operations to a local company. However, the experiment resulted in an increase of untreated sewage spills into Lake Ontario. The company foundered and was eventually bought by a subsidiary of Enron Corporation, which later collapsed and ended up being owned by a German utility. By 2004, the municipality could not find a satisfactory contractor and once again took over direct control.

##### ***Water treatment in Moncton, New Brunswick***

In another example, a single company entered into various governance arrangements to address water treatment. In the 1990s, Moncton, New Brunswick contracted Veolia Water Canada to design, build, and finance a new water treatment plant, and in return Veolia received the exclusive right to sell water to the city for 20 years. In 2011, the City of Winnipeg entered into a 30 year agreement with Veolia in which the company advises the city about how to operate its treatment plants more efficiently and, in turn, receives a share of the savings.

##### ***Wastewater improvement in Cranbrook, British Columbia***

To meet the demands of its operating permit and the needs of the community, the City of Cranbrook upgraded its wastewater treatment and disposal systems and designed and constructed a permanent sewage outfall on the Kootenay River. The city increased the quality of its treated effluent and decreased its energy consumption and GHG emissions by installing more efficient pumps and introducing computer-controlled, low-pressure spray nozzle technologies and fine bubble air diffuser aeration in treatment lagoons. Most of the treated effluent is reused for crop irrigation, which reduces the demand on well or potable water and helps boost the livestock and agriculture industries as they become more economically viable. With the collaboration of local wildlife organizations, effluent is also used to enhance natural habitat through wetlands discharge. The recycling of wastewater supports ranching and agriculture by providing valuable land in the region's semi-arid conditions and also provides important wildlife habitat.

Source: Loxley (2010).

<sup>36</sup> For listings of federally-funded infrastructure projects (including more than water and wastewater projects), see: <http://www.infrastructure.gc.ca/regions/regions-eng.html>.

Topography is the main factor in capturing efficiencies in the delivery of piped water. This means that institutional mechanisms to enhance inter-municipal co-operation across boundaries are essential. In Canada these take a multitude of forms. In Vancouver, the Greater Vancouver Sewerage and Drainage District and the Greater Vancouver Water District, both part of the inter-municipal institution now known as Metro Vancouver, provide wastewater and water services to 15 and 18 municipalities, respectively.<sup>37</sup> The city of Toronto sells piped water to its northern neighbor, York Region, so that the region can, in turn, sell water to its southern constituent municipalities.<sup>38</sup> London, Ontario (Canada) dominates two different inter-municipal water boards that purify water from lakes Huron and Erie and then pump it inland. Various municipalities in the area tap into the systems to get their water supplies, but London is by far each system's largest consumer. Its treated wastewater is then released into the Thames river, which flows westward into Lake St. Clair, part of the system of waterways near Detroit (U.S.) that connects lakes Huron and Erie. Another Canadian water-supply system with special geographical and institutional features is the Buffalo Pound Water Administration Board. Established in 1951, the Board provides water to the Saskatchewan cities of Regina and Moose Jaw (Canada), which are 60 kilometres apart.<sup>39</sup>

<sup>37</sup> <http://www.metrovancouver.org/boards/Pages/directors.aspx>

<sup>38</sup> Water Supply agreement between the city of Toronto and the regional municipality of York, March 1, 2005.

<sup>39</sup> For details, see Sancton (2011), p. 56.

<sup>40</sup> But not in the tiny province of Prince Edward Island in Canada (2011 population: 140,204), where it is a provincial responsibility

<sup>41</sup> [http://www.municipalitiesnl.com/?Content=CCRC/Cooperation\\_in\\_NL-01/Waste\\_Management](http://www.municipalitiesnl.com/?Content=CCRC/Cooperation_in_NL-01/Waste_Management)

<sup>42</sup> <http://www.easternwaste.ca/about-us>

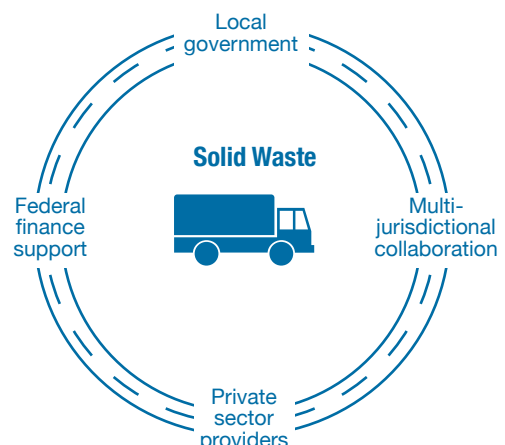
is particularly common among U.S. local governments. Several local governments in the region are increasingly experimenting with new waste-to-energy technologies and 'cradle-to-cradle' approaches to solid waste management.

The disposal or diversion of almost all solid waste is the responsibility of Canadian local governments. According to Statistics Canada data on local government capital expenditures for solid waste management from 1988 to 2008, increases as a result of federal capital grants in recent years, while significant, were not as dramatic as for other infrastructure categories.

While solid waste management is generally a responsibility of Canadian municipalities, there is some movement toward regional service provision. For example, in 2008, the provincial government of Newfoundland and Labrador established regional waste management zones to reduce the number of individual landfill sites across the province.<sup>41</sup> For the St. John's metropolitan area, the responsible body is the Eastern Waste Management Committee (EWMC), comprising eight representatives from the City of St. John's (Canada), eight from other municipalities, and an independent chair selected by the committee.<sup>42</sup> The region's municipalities continue to collect solid waste, but the existence of the regional authority minimizes inter-municipal issues and disputes relating to waste management.

### Solid waste management

Solid waste management in North America is almost entirely the responsibility of local governments.<sup>40</sup> In Canada and the U.S., the management of solid waste, recycling, and other waste services is local, with some subsidies and regulations from federal governments. Both multi-jurisdictional collaboration and partnerships, and the use of private sector providers are common in both countries. The full-scale contracting out of solid waste management services



The federal government in Canada has virtually no role with respect to solid waste management. However, solid waste management infrastructure is eligible for federal infrastructure and gas tax subsidies. A large waste management project, Durham York Energy Centre, currently under construction east of Toronto, has received gas tax funds,<sup>43</sup> and is the result of a partnership between

two regional municipalities (Durham and York) and an American private corporation (Covanta Energy) that has a public private partnership contract for the waste-to-energy facility.<sup>44</sup>

Other local governments in Canada are increasingly turning to waste-to-energy strategies, with Metro Vancouver taking



### Box 8.7 Solid waste management in Canada

#### ***St. John's, Newfoundland***

The Robin Hood Bay landfill is located in the east end of St. John's and is owned and operated by the city of St. John's. In 2007, RHB was designated as the Regional Integrated Waste Management Facility for the Eastern Region. The city of St. John's will provide recycling processing and waste disposal for communities in the Eastern Region. The landfill site redevelopment cost CAD 51.2 million. The majority of the cost was funded by the Province and the federal gas tax program. The city of St. John's provided CAD 6.5 million and the provincial Department of Environment contributed CAD 1.9 million for methane recovery. The facility will have a leachate collection system and methane gas capture; a materials recycling facility (paper fiber, containers); a residential drop-off area; a metal recycling scrap yard (operated by NLL Recycling Ltd); a household hazardous waste collection facility; a special waste disposal area (asbestos, international waste); and a tire processing area (coordinated with the province's Multi-Materials Stewardship Board). Along with provincial diversion programs, the city of St. John's has implemented several waste disposal bans and diversion programs, such as metals not being accepted at the landfill and instead diverted to the onsite recycler. The landfill does not accept liquid wastes, hazardous wastes, tires, paper and animal carcasses, and once the composting facility is completed, the city may ban disposal of organic waste at RHB.

#### ***Salmon Arm, British Columbia***

The Columbia Shuswap Regional District (CSRD) in British Columbia has transformed the capped Salmon Arm landfill into an asset that will produce long-term economic and environmental benefits for the municipality. The project involved capping the completed portion of the landfill, capturing gas, and upgrading it to provide natural gas heating for over 500 homes in Salmon Arm. A hybrid poplar plantation growing on top of the capped landfill further reduces carbon and reuses the reclaimed leachate. It is expected to reduce GHG emissions by about 10,000 tons of CO<sub>2</sub> equivalent annually. Over 10,000 carbon credits will be generated annually and sold to Pacific Carbon Trust. The sale of carbon credits should offset the project cost over 15 years. By September 2011, about 260 tons of methane (971 passenger vehicles) had been eliminated.



**Solid waste management in North America is almost entirely the responsibility of local governments.**

<sup>43</sup> <http://www.durhamyorkwaste.ca/pdfs/media/20110817DurhamYorkRegionsbreakgroundonEFWfacility.pdf>

<sup>44</sup> <http://www.durhamyorkwaste.ca/project/faq.htm#q10>





**The contracting-out trend in solid waste management has led to some of the highest levels of for-profit delivery of local services in the local government sector.**

a lead role in implementing a zero-waste, “cradle-to-cradle” strategy for solid waste management. Conventional solid waste management is a linear, “cradle-to-grave” approach that focuses on how best to recycle and dispose of products at the end of their life (see Box 8.7). Ambitious recycling and material recovery programs have

used in the production and distribution of goods that eventually end up in the waste stream. The waste management strategies described in the examples below involve efforts that take waste and turn it into products that can be purchased, consumed, and reused or recycled (see Box 8.8).



#### Box 8.8 Canada’s National Zero Waste Council

The National Zero Waste Council is an initiative led by Metro Vancouver, with support from the Federation of Canadian Municipalities and other groups, which seeks to reduce the generation of waste and increase recycling rates in Canada’s third largest metropolitan area (2.3 million residents). The Council aims to better align and harmonize waste prevention and reduction initiatives across Canada through greater collaboration among government, businesses, NGOs, and community groups.

The Council focuses on designing for the environment with a “cradle-to-cradle” approach that will result in less material and energy being used and eventually discarded. The approach will reduce or eliminate the use of toxic chemicals and will lead to the manufacture of products that can more easily be disassembled into reusable and recyclable components. Metro Vancouver’s Integrated Solid Waste and Resource Management Plan (ISWRMP) is an exemplary model which has set aggressive waste reduction and diversion targets. At this point in time, most of its work falls within the jurisdiction of Metro Vancouver and its member municipalities. The National Zero Waste Council is the model to reach beyond the local jurisdiction, influence the design of products toward cradle-to-cradle approaches, and create greater public awareness of the need to reduce and prevent waste.

Sources: <http://www.metrovancouver.org/REGION/ZWMARKETINGCOUNCIL/Pages/default.aspx> and <http://www.metrovancouver.org/region/ZWMarketingCouncil/ZWCouncilDocs/ZWCInauguralRoundtableReport.pdf>

been successful in increasing the amount of waste diverted from final disposal, but not in reducing the aggregate amount of waste being handled. Moreover, the costs and challenges of handling solid waste are effectively disconnected from the decisions made in the early stages of a product’s life cycle (i.e., during the design, manufacturing and packaging stages). Waste prevention and reduction is necessary to reduce the amount of resources, materials and energy

As with water and sanitation, solid waste management and sanitation in the U.S. are mainly locally provided services. There are a mix of governance models, heavily shaped by the federal and state regulatory environment because of federal public health and environmental regulations and each states’ legislative involvement in the planning, location, acquisition, development and operation of landfills. Even so, the NLC found that the primary responsibility for a municipality’s

solid waste and recycling management either belonged to the city (70 and 68%) or was contracted out to the private sector (21 and 19%).<sup>45</sup>

Local governments' main responsibilities in managing municipal solid waste are to: arrange for waste to be collected regularly from households; store, recycle, compost, or dispose of waste properly; and educate and inform their communities in the ways in which they can help manage waste.

Prevailing governance models include provision by: (a) local agency/department, (b) special authority/district, some of which are multi-jurisdiction/regional, and (c) a private contractor, or some mix thereof. Regardless of governance model, local governments often invest directly in solid waste facilities and transport/hauling equipment, such as transfer stations where large trailer or other containers are situated in a central location.

Another significant model is the wholesale contracting out of solid waste management to a private sector provider. This is an oft-used model for waste management among U.S. local governments, and distinguishes waste management from other infrastructure areas like water and transportation. The contracting-out model arose in response to new solid waste disposal technologies and a changing regulatory environment. The private sector was quicker to develop the expertise and investment capital to respond to the need to dispose of recycled products and to take advantage of opportunities to recover energy from the process.<sup>46</sup> The contracting-out trend in solid waste management has led to some of the highest levels of for-profit delivery of local services in the local government sector, and the industry has experienced significant vendor consolidation in solid waste management, trending toward monopoly. Analysts warn that contracting out to a monopoly without adequate oversight poses a risk to the efficiency gains of contracting. Small communities are particularly at risk as they are less

likely to have competitive bidding processes and to be able to compare costs across production options.<sup>47</sup>

Financing of local solid waste management primarily relies on local tax-, fee-, and rate-based systems. More and more communities are turning to pay-as-you-throw (PAYT) pricing, also known as variable fees, or unit-based, pricing. The pricing system “charges customers based on the amount of solid waste they discard. This strategy for pricing local solid waste collection and disposal services is analogous to that used by local utilities for electricity, gas, water, and sanitary sewer services, where customers pay for what they use—except in this case, citizens pay for how much they throw away”.<sup>48</sup> The system seeks to reduce the volume of waste for disposal, increase recycling and composting, and increase savings in collection and disposal by incentivizing changes in resident behaviors.

Investment in local government capital facilities includes, as in other infrastructure service arenas, tax-exempt bonds (debt) and grants, and loans from other levels of government.

In the contracting-out model, a number of financing mechanisms are used, particularly where the local government owns the disposal facilities, including franchise fees—where private contractors pay a fee to secure a local government contract—and monies that local governments recover from private sector franchise haulers. Local governments that own facilities can also choose to lease the facilities to a private contractor.

As in Canada, the waste-to-energy approach to waste management is increasingly being explored by local governments in the U.S. However, greater innovation in technologies and systems is needed for the waste-to-energy market to reach scale. As of 2010, 24 states had a total of only 86 municipal solid waste-to-energy plants where



**Greater innovation in technologies and systems is needed for the waste-to-energy market to reach scale.**

<sup>45</sup> National League of Cities (2012).

<sup>46</sup> Aldrich and Eisner (1973).

<sup>47</sup> Girth et al (2012), p. 3, 11.

<sup>48</sup> Folz and Giles (2002), p. 105.



**Energy and broadband/telecommunications technologies, while pivotal to citizens, operate mostly outside the purview of local governments**

different technologies and systems directly combusted waste into: 1) a fuel with minimal processing (mass burn), 2) a fuel with moderate to extensive processing before being directly combusted as refuse-derived

and broadband/telecommunications technologies, while pivotal to citizens, operate mostly outside the purview of local governments in North America.<sup>50</sup> This is often due to questions of scale, with electricity and



#### Box 8.9 Waste-to-energy in the U.S.

The City of Boulder, Colorado owns and operates water, wastewater and flood management utilities and is exploring the development of its own municipal electric utility. Since 1987 Boulder has operated a cogeneration facility which converts methane from a wastewater treatment plant to produce electricity. The resulting electricity – approximately 2 million kilowatt-hours per year - is used to operate the wastewater treatment plant and as a reserve energy source during power outages.

The Huntsville, Alabama Solid Waste-to-Energy Facility is owned by the City of Huntsville Solid Waste Disposal Authority, but the operator, Covanta Huntsville, Inc., is private.

The Commerce, California Refuse-to-Energy Facility is owned by the Commerce Refuse-to-Energy Authority.

Source: [http://www.seas.columbia.edu/earth/wtert/sofos/ERC\\_2010\\_Directory.pdf](http://www.seas.columbia.edu/earth/wtert/sofos/ERC_2010_Directory.pdf)

fuel, or 3) a gasified fuel using pyrolysis or thermal gasification techniques. “Each of these technologies presents the opportunity for both electricity production as well as an alternative to landfilling or composting municipal solid waste. In contrast to many other energy technologies that require fuel to be purchased, municipal solid waste facilities are paid by the fuel suppliers to take the fuel (known as a “tipping fee”). The tipping fee is comparable to the fee charged to dispose of garbage at a landfill. Another municipal solid waste-to-electricity technology, landfill gas recovery, permits electricity production from existing landfills via the natural degradation of municipal solid waste by anaerobic fermentation (digestion) into landfill gas (see Box 8.9).”<sup>49</sup>

### Energy and broadband

Energy (including electricity and natural gas)

natural gas networks spanning continents and, in the case of broadband, much of the populated world. Questions of scale, in fact, explain why the delivery of water-supply and sanitation systems is almost always a state, provincial, or local responsibility in North America while electricity, natural gas, and broadband are typically addressed at the national level.

In contrast to the other infrastructure categories, U.S. electricity and natural gas services and broadband communications are more often the purview of private sector providers. Few local governments provide these services through publicly owned and operated enterprises. Regardless of provider, federal and state governments have significant regulatory authority.

Research by the NLC indicates that local governments are rarely the leads in

<sup>49</sup> <http://www.energy.ca.gov/biomass/msw.html>

<sup>50</sup> For purposes of this chapter, we include broadband telecommunications infrastructure among our consideration of “basic local services,” given the importance of this continually evolving infrastructure to economic and social development. Broadband telecommunications is treated in the chapter in the same context as electricity and gas because of the similarities in service delivery models in North America.

providing electricity or gas, with only 17% reporting that they have primary responsibility for these services.<sup>51</sup> In general, local governments do not own generation, transmission, and distribution assets in electricity, natural gas, or broadband telecommunications. However, some localities have public utilities or entities that may be involved in the delivery of each of these basic services.

According to the American Public Power Association (APPA), there are more than 2,000 community-owned electric utilities in

the U.S., with 2,008 public power systems and 877 rural electric cooperatives. The Los Angeles Department of Water & Power is the largest of these and serves 1.4 million customers.<sup>52</sup> Governance structures vary greatly from state to state. For example, local utilities and/or joint management authorities develop facilities to generate and transmit electricity for their jurisdiction(s). In addition, these local utilities and joint management authorities can also sell generated electricity to municipalities that only operate electric distribution systems. These local



#### Box 8.10 Public utilities in the U.S.

##### ***Smart grid technologies in Tallahassee, Florida***

Tallahassee, Florida is considered among the first municipalities in the country to combine energy and water services by using smart grid technologies to reduce peak consumption and improve service. Through this system, customers use smart meters to understand their consumption patterns in ‘real time,’ select from various pricing plans and use advanced communications technology to remotely control their energy usage or identify water leaks. These systems also allow grid operators to pin-point and respond to power disturbances more quickly and efficiently. Through the innovative Energy Smart Plus (e+) program, the city provides a full range of educational products and services, consumption assessments, and mobile applications.

##### ***Municipally owned energy and water utilities in Austin, Texas***

The city of Austin, Texas owns and operates two public utilities: Austin Energy and Austin Water. Austin Energy serves over 420,000 customers and relies primarily on nuclear, coal and natural gas sources. Profits from Austin Energy are used to support city fire and police departments, emergency management services, parks and libraries. Wind power currently makes up about 10% of total generation. Significant investments in solar, wind and biomass are expected to increase this portion to 27% in 2013 and to position the city to achieve the city council’s aggressive goal of 35% by 2020. In 1990, Austin Energy developed the nation’s first and largest green building program. The city has capitalized on its energy utility to invest in ‘smart-grid’ technologies, including an expansive network of electric vehicle charging stations. In addition, as a growing city in a drought-prone region of the U.S., Austin’s water utility is as focused on conservation as it is on treatment and distribution. Austin Water provides educational resources and financial incentives to assist residents and area businesses to use water most efficiently. The city has also adopted a Water Conservation Code and a Drought Contingency Plan.

<sup>51</sup> National League of Cities (2012).

<sup>52</sup> See American Public Power Association site for more information: <http://www.publicpower.org/aboutappa/index.cfm?ItemNumber=9487&navItemNumber=20953> and <http://www.publicpower.org/files/PDFs/51HometownPowerFlyer.pdf>.

providers finance all service provision on a self-supporting basis.

The American Public Gas Association has over 700 members that are publicly-owned natural gas local distribution companies; the Philadelphia Gas Works is the oldest and largest system, founded in 1836 and serving over 500,000 customers.<sup>53</sup> As with electricity, the local governance structures also vary greatly from state to state, but the most common is either local government departments or a separate local authorities. In the latter case, the separate authority may be required to transfer any profits that exceed operating and capital costs earned from the provision of natural gas to the associated local governments' general funds.

In terms of municipal provision of telecommunication and broadband services, municipalities are at the will of state governments. The U.S. Supreme Court ruling on the Telecommunications Act of 1996 ruled that states could determine the powers of their subordinate jurisdictions.<sup>54</sup>

Thus, the ability of a municipality to provide broadband can be restricted by state law. In practice, however, the same variation in local powers is found as with other basic local services. NLC research indicates that only 6% of cities and 1% of special authorities have primary responsibility for broadband and telecommunications.<sup>55</sup>

Publicly owned and operated broadband entities have emerged within the local government arena, primarily as a means of providing services to unserved and underserved populations. The federal government is the key actor in this field. For instance, the American Recovery and Reinvestment Act of 2009 established USD 7.2 billion in funding through two grant programs to encourage broadband expansion to underserved populations (see Box 8.10).

In Canada, networks for the supply of electricity, natural gas, and broadband are less local than those for water supply and sanitation.

Ontario and Alberta are the provinces where municipalities have historically been



#### Box 8.11 Public utilities in Canada

When the City of Edmonton, Alberta acquired the Edmonton Electric Lighting and Power Company in 1902, it became the first municipally owned electric utility in Canada. In 1996 Edmonton Power became EPCOR Utilities Inc., a utilities company whose sole shareholder is the City. EPCOR provides electricity, water and wastewater services within Edmonton and now operates in many parts of Alberta and British Columbia and in the American states of Arizona and New Mexico. In the city of Calgary, electricity is provided by ENMAX Corporation, a wholly-owned subsidiary of the city.

With some significant exceptions, electricity distribution networks in other Canadian cities and towns are generally owned by provincial crown (i.e. public) corporations. The City of Montreal, Quebec is the most populous municipality in the country whose residents and businesses are direct customers of a provincial crown corporation (Hydro-Québec).

<sup>53</sup> For the top 100 municipal gas systems, see [http://www.apga.org/files/public/Top percent20100 percent20122011.pdf](http://www.apga.org/files/public/Top%20percent20100percent20122011.pdf), and for the oldest, see <http://www.apga.org/i4a/pages/index.cfm?pageid=3332>.

<sup>54</sup> See *Missouri Municipal League v. Nixon*, No. 02-1238. U.S. Supreme Court Decision. Argued January 12, 2004.

<sup>55</sup> National League of Cities (2012).

Sources: <http://corp.epcor.com/about/Pages/history.aspx>; <http://corp.epcor.com/about/Pages/who-we-are.aspx>; <http://www.enmax.com/Corporation/About+Enmax/Our+Company/History.htm>





### Box 8.12 Local energy efficiency in Canada

#### ***A net-zero library in Varennes, Quebec***

The Ville de Varennes is building a net-zero library, the first of its kind in Canada, which will serve as a model for all future municipal projects. This highly energy-efficient building will generate its own renewable energy, producing as much energy as it consumes. It will also feature measures to reduce water consumption, use sustainable building materials, and have very low operating costs. Located close to the city center, the library will also be very easily accessible, with 80% of the population within a five minute biking distance.

#### ***A district energy system in Surrey, British Columbia***

The City of Surrey is building a district energy system that will heat and cool a precinct in Surrey City Center and be connected to its new LEED-Gold City Hall. The district energy system will be based on an underground geo-exchange field, which uses heat pumps to extract the energy stored in the ground. This system will provide energy to heat and cool City Hall and adjacent buildings, and will be able to connect with future district energy systems in the area. This is but one initiative demonstrating the city's commitment to reducing its GHG emissions by 20% by 2020. The city is also retrofitting key city facilities, obtaining E3 Fleet Gold Certification, and expanding the city's fleet to include electric and other alternative vehicles. The city also recently introduced a new by-law, the first of its kind in Canada, which will require all new service stations to provide alternative fuel sources (e.g. Level 3 electric vehicle charging station, compressed natural gas or hydrogen).



**Electricity in Canada is generally safe, reliable and, in comparison to most other parts of the world, inexpensive.**

most involved in electricity. Until 1998, municipal special-purpose bodies known as “public-utilities” or “hydro” commissions owned and managed electricity distribution networks in most Ontario urban municipalities (see Box 8.11). Following provincial legislation in 1998, the commissions were converted into municipally-owned business corporations that could be bought and sold. Since this change, Ontario municipalities have either tried to sell these corporations to private companies, or other municipal corporations at a high price, or to build their local electricity companies into regional giants (see Box 8.12).<sup>56</sup>

Although electricity generation creates environmental controversy in Canada, the distribution of electricity does not. Electricity

in Canada is generally safe, reliable and, in comparison to most other parts of the world, inexpensive. There are no claims that the electrical system should be subsidized by infrastructure grants or by any other government program, although it has been pointed out that subsidization occurs by provincial governments “charging below-market water royalty rates for hydroelectric generation or below-market returns on equity.”<sup>57</sup> It is also argued that, because most local distribution companies charge common electricity rates within the same jurisdiction, they fail to capture differences in distribution costs between dense and sprawling urban settlements. Therefore, consumers in densely populated areas subsidize those in the less dense areas. An exception is Hydro One, the Ontario

<sup>56</sup> Mississauga Judicial Inquiry (2011), ch. 1-4.

<sup>57</sup> Blais (2010) p. 111.

crown corporation that distributes electricity in rural parts of the province. It has three distinct “density classifications” and states that its “rates reflect the cost to serve customers in each density classification, which means that rates are higher for customers in less densely populated areas.”<sup>58</sup>

Similar issues about cost differences due to population density are also common in natural gas distribution and broadband systems.<sup>59</sup> However, Canadian local governments have very little responsibility for these services.<sup>60</sup>

Natural gas distribution is regulated by the provinces, broadband by the federal government. The Cities of Kitchener and Kingston in Ontario provide natural gas through their respective utilities operations but, in most parts of Canada, natural gas is distributed by private companies or by provincial crown corporations.

Municipalities in Canada are even less involved in providing broadband Internet access than they are with energy.

<sup>58</sup> Quoted in Blais (2010) p. 113.

<sup>59</sup> Blais (2010) ch. 8.

<sup>60</sup> But some Canadian local governments in less populated areas are actively working for better broadband access. For example, see <http://www.eorn.ca/about-eorn/>



## 8.4 Existing and emerging challenges

A broad consensus exists among policy-makers and other stakeholders in the region about the challenge of ongoing and increasing infrastructure deficits and the implications of not addressing those deficits for the future economic growth, competitiveness, and quality of life in the U.S. and Canada. Beyond the need for re-investment, there is also near universal acknowledgement that future investments must better plan for, and integrate, systems across levels of government and sectors. While a broad consensus exists among policy makers and stakeholders on the most pressing issues for infrastructure systems in the region, proposed solutions to these challenges are more controversial.

Financing to address infrastructure deficits remains the key challenge for the region. In 2012 the Federation of Canadian Municipalities (FCM) and National League of Cities (NLC) surveyed each of its municipal members to determine the state of their roads and water and wastewater systems.

Canada's "Infrastructure Report Card" was a joint project of FCM, the Canadian Construction Association, the Canadian Public Works Association, and the Canadian

**Table 8.3 Key infrastructure challenges in the U.S.**

Survey Question: What are the key challenges associated with providing the following infrastructure services?

|                        | Funding/<br>financing | Developing<br>new<br>capacity | Disrepair/<br>aging | Relationships<br>with key<br>partners | Legal/<br>institutional<br>constraints | Public<br>support for<br>investments | Other |
|------------------------|-----------------------|-------------------------------|---------------------|---------------------------------------|--|--------------------------------------|-------|
| <b>Roads/Bridges</b>   | 90.9                  | 29.7                          | 78.4                | 15.9                                  | 6.5                                    | 29.3                                 | 3.9   |
| <b>Transit</b>         | 65.9                  | 43.5                          | 15.5                | 43.5                                  | 8.6                                    | 41.8                                 | 6.0   |
| <b>Drinking Water</b>  | 55.8                  | 39.2                          | 59.5                | 24.6                                  | 14.2                                   | 18.1                                 | 7.3   |
| <b>Sanitation</b>      | 69.8                  | 37.5                          | 67.2                | 19.4                                  | 13.8                                   | 17.7                                 | 7.3   |
| <b>Solid Waste</b>     | 49.1                  | 35.3                          | 16.8                | 38.4                                  | 21.6                                   | 28.4                                 | 10.3  |
| <b>Recycling</b>       | 47.8                  | 38.4                          | 9.1                 | 44.0                                  | 18.5                                   | 34.1                                 | 7.8   |
| <b>Electricity/Gas</b> | 35.3                  | 33.2                          | 24.1                | 31.5                                  | 17.2                                   | 19.4                                 | 11.6  |
| <b>Broadband</b>       | 33.2                  | 37.9                          | 8.2                 | 37.9                                  | 15.5                                   | 19.0                                 | 13.8  |



**The region still needs significant investment in new infrastructure, particularly in urban transit systems and new transportation capacity.**

Society of Civil Engineers. Of 346 municipalities surveyed, 123 responded, representing approximately half of the Canadian population. The respondents rated about 30% of the infrastructure as being in either “poor” or “very poor” condition. The replacement costs for these assets alone totals CAD 171.8 billion.<sup>61</sup>

The NLC survey focused on the adequacy of the local infrastructure to meet a municipality’s current population needs and garnered similar results. With 232 municipalities responding, most reported that infrastructure systems—drinking water, sanitation, solid waste, recycling, and electricity and gas—were poorly maintained without enough capacity to meet current needs. Only roads and bridges, transit, and broadband received adequate ratings.<sup>62</sup> The survey also queried municipalities on the principal challenges that affect the provision of each infrastructure service. Table 8.3 reports the results: respondents could select up to three for each type of infrastructure.

The American Society of Civil Engineers (ASCE) reports regularly on the state of

U.S. infrastructure, assessing the needs of the system and providing estimates of what each category needs to operate and maintain at a level that accounts for population growth and other system aging. ASCE’s 2009 Infrastructure Report Card<sup>63</sup> outlined the following gaps in government spending on infrastructure:

- USD 930 billion in investment needed in the next five years for surface transportation (roads and bridges) compared to an estimated USD 380.5 billion that is currently planned;
- USD 265 billion in investment needed in the next five years for transit compared to USD 74.9 billion planned;
- USD 1.9 billion in investment is needed in the next five years for drinking water and wastewater infrastructure, in addition to the USD 146 billion in planned spending; and USD 77 billion in investment is needed in the next five years for waste management (solid and hazardous waste) compared to USD 33.6 billion in planned spending.

<sup>61</sup> Federation of Canadian Municipalities (2012), p. 1 and 4.

<sup>62</sup> National League of Cities (2012).

<sup>63</sup> <http://www.infrastructurereportcard.org/>

The main infrastructure challenges for local governments are funding and financing aging infrastructure assets. Roads, bridges, drinking water, and sanitation services in the U.S. pose similar problems. Local governments' reliance on contractors for solid waste and recycling are challenged by funding and overseeing the contracting relationships. Electricity, gas and broadband are provided by the private sector and thus local governments are less able to directly influence and invest in the development of new capacity. Finally, transit relies on public support for transit investments. The following sections provide more detail on these issues.

### ***Aging infrastructure and deferred maintenance***

Major infrastructure investments were made in previous eras, but have not always been well-maintained, operated, and updated over time, presenting public policy makers with decisions between making regular investments in maintenance over time and even higher spending on replacements and construction. The ASCE has suggested that this problem threatens the safety of infrastructure systems, and creates congestion due to population growth and unforeseen events. Recent events have lent credence to this argument. In the U.S., the 2007 collapse of the I-35 westbound Mississippi River Bridge in Minneapolis-St. Paul drew attention to aging infrastructure and the need to address the backlog of deferred maintenance. Although this is a federal highway, local infrastructure faces similar issues. Recent incidents of concrete falling from the Gardiner expressway in Toronto have caused public concern, and there is even more cause for concern about some provincial highways and bridges in the Montreal area. For drinking water, there is a particular need to replace aging facilities, at or near the end of useful life, in order to comply with existing and future water

regulations. For wastewater, older systems produce overflows during major rainstorms and heavy snowmelt, as recently seen with Hurricane Sandy in October 2012, which overwhelmed combined sewage systems and sanitary sewage systems from the Mid-Atlantic states up to New England and the Great Lakes. "The EPA estimated in August 2004 that the volume of combined sewage overflows discharged nationwide is 850 billion gallons per year. Sanitary sewer overflows, caused by blocked or broken pipes result in the release of as much as 10 billion gallons of raw sewage annually."<sup>64</sup> In Canada, new federal wastewater regulations will force approximately 25% of the wastewater systems across the country to undertake costly upgrades, estimated to cost CAD 20 to 40 billion over the next 10 to 30 years. As of yet, no federal funding assistance has been offered to help meet these added demands.<sup>65</sup>

### ***Need for construction of new infrastructure***

While there are significant maintenance and operation issues related to the age of infrastructure, the region still needs significant investment in new infrastructure, particularly in urban transit systems and new transportation capacity to accommodate population growth.

In 2012, after many attempts, the U.S. Congress enacted a new multi-year surface transportation authorization bill that re-authorizes federal highway and mass transit programs through the end of FY2014 (27 months) and authorizes USD 105.2 billion in appropriations for these programs in FY2013 and FY2014 (about USD 118 billion, including funding already appropriated for FY2012). Allocations for urban mass transit are USD 10.6 billion in 2013 and USD 10.7 billion in 2014.



**There is a need for further experimentation and innovation in the use of congestion charges and full-cost pricing of basic services.**

<sup>64</sup> <http://www.infrastructurereportcard.org/fact-sheet/wastewater>

<sup>65</sup> <http://www.fcm.ca/home/issues/environment/wastewater-system-effluent-regulations.htm>





**As new pricing mechanisms and public private partnership options emerge for financing and operating infrastructure systems, further equity issues will likely arise.**

### ***Financing and pricing mechanisms***

One of the foremost challenges in meeting infrastructure needs in the region, whether through maintenance or new construction, is identifying sustainable, politically viable financing and funding models. Effectively pricing the true costs of infrastructure investments—construction plus longer-term maintenance—is resulting in the increased use of service fees. In both countries, difficulties persist in determining the appropriate levels of user fees for a variety of key infrastructure services—water and sanitation, solid waste, public transit, and roads, among others.

The central underlying policy debate in most cases is how to finance the needed maintenance and construction. As described in the report, the level of government that has the primary responsibility for financing infrastructure projects limits available financial mechanisms.

For example, in the U.S., the main source of federal and state transportation funding is a gas tax (tax on consumption of gasoline, per gallon), and two factors are making this an unacceptable source for meeting transportation funding needs. First, the gas tax has not been raised or indexed for inflation since the early 1980s. Second, the legislated push for increased fuel efficiency of automobiles and fleets results in lower gas consumption, all things held equal. Consequently, the gas tax has a decreased ability to fund necessary improvements over time. Funding from state and local sources has also decreased as a result of the global economic downturn. Given decreasing funds, there is a need for further experimentation and innovation in the use of congestion charges and full-cost pricing of basic services.

The U.S. debate underscores the importance of developments on the funding front in Canada in the last decade, which were renewed and expanded in the 2013-14 Canadian federal budget, where local

governments were successful in ensuring continued federal investment in local infrastructure improvements.

### ***Equity and access***

By international standards, access to basic services is good in North America.<sup>66</sup> However, the variation in adequacy of basic services presents some challenges.

Within transportation and transit, equitable access to adequate and low-cost transportation is often a problem. For instance, lower-income populations often travel further to get to job centres and lack access to public transportation. “For working families living in neighborhoods far from employment centers, especially those in the USD 20,000 - 35,000 income bracket, combined housing and transportation costs consume a particularly large share of income, with transportation costs exceeding those for housing”.<sup>67</sup> Yet, public support for subsidizing transit systems, particularly among wealthier communities, is often difficult to obtain.

In telecommunications, high-speed, broadband infrastructure is not sufficient to ensure economic competitiveness and equity of access. Both the U.S. and Canada face issues of “last mile” costs (delivering the infrastructure from hubs/nodes to homes/businesses) and “digital divides”—large segments of the population (disproportionately lower-income/disadvantaged) that lack access to this infrastructure.

Size and geography issues also routinely arise. Smaller local government water systems face huge financial, technological, and managerial challenges in meeting a growing number of federal drinking-water regulations. Regional geography affects water provision governance models because water supply sources can be plentiful from rivers and aquifers or negligible, and if these water supply sources cross local and state boundaries, there is greater complexity in ensuring equitable access.

<sup>66</sup> This generalization does not apply to many Indian Reserves, which are federal (not local) responsibilities in both countries. The situation in many isolated reserves in Canada is especially grim. For details, see Neegan Burnside Ltd., National Assessment of First Nations Water and Wastewater Systems: National Roll-up Report, April 2011, The report is available at: <http://www.aadnc-aandc.gc.ca/eng/1313770257504>

<sup>67</sup> Shoup and Lang (2011), p. 71

**Table 8.4 Infrastructure planning in the U.S.**

Survey question: To what extent are combined environmental, economic, and community impacts considered in your planning?

|                             | A Lot | 6   | 5    | Somewhat | 3    | 2    | Very Little |
|-----------------------------|-------|-----|------|----------|------|------|-------------|
| <b>Roads/<br/>Bridges</b>   | 0.9   | 0   | 0.9  | 9.3      | 16.9 | 26.2 | 45.8        |
| <b>Transit</b>              | 6.0   | 2.3 | 5.5  | 17.0     | 19.7 | 22.0 | 27.5        |
| <b>Drinking<br/>Water</b>   | 1.8   | 1.4 | 1.4  | 9.9      | 12.2 | 22.1 | 51.4        |
| <b>Sanitation</b>           | 0.9   | 0.9 | 2.2  | 8.5      | 11.7 | 26.5 | 49.3        |
| <b>Solid Waste</b>          | 3.1   | 1.8 | 4.0  | 13.4     | 13.8 | 23.7 | 40.2        |
| <b>Recycling</b>            | 3.1   | 2.2 | 3.6  | 15.2     | 16.1 | 21.0 | 38.8        |
| <b>Electricity/<br/>Gas</b> | 11.7  | 5.1 | 8.9  | 23.8     | 15.4 | 15.4 | 19.6        |
| <b>Broadband</b>            | 17.5  | 8.5 | 12.3 | 28.3     | 11.8 | 9.9  | 11.8        |



**A sustainable future for infrastructure development and planning requires communities to conduct comprehensive (general) plans.**

Lastly, as new pricing mechanisms and public private partnership options emerge for financing and operating infrastructure systems, further equity issues will likely arise in relation to the costs of using basic services. Privately operated infrastructure facilities, for instance, are more likely to price the use of the infrastructure on a “full cost” basis – taking into account the initial investment and operating costs of the infrastructure. Full cost pricing, however, without some significant subsidy based on ability to pay, will likely make access increasingly difficult for more economically vulnerable populations.

### ***Sustainability and planning***

The U.S. and Canada offer a varied landscape in terms of local government responsibilities for infrastructure and the governance models that result from them. This variation across local governments generates a number of obstacles to sustainable

planning across all of the local basic services, both in ensuring sustainable funding over time to maintain full, quality coverage, and in ensuring sustainable development that avoids passing on costs or resource depletion to future generations. Local governments and authorities tasked with the responsibility for providing basic local services may work toward such sustainable planning within service arenas, but more often than not planning occurs in silos; little is done to reflect on how one category may have repercussions on the other, and the idea of environmental sustainability is ill-defined.

For example, NLC survey research indicates that municipalities rarely consider the combined environmental, economic, and community impacts in infrastructure planning (see Table 8.4). Only broadband stands out, and this is most likely due to the influence of grants that focus on the access issues for the unserved and underserved.

An example of the need to consider impacts across the system is classically represented in transportation and transit planning. The development and building of new roads, bridges, and transit systems should account for the full environmental impact. TransLink in metropolitan Vancouver, Canada has the jurisdictional capacity to meet this objective, but there is much inter-municipal and provincial-municipal disagreement that has prevented decisive action. Although the “transportation system (in the U.S.) creates economic opportunities, it also presents significant environmental challenges relating to air pollution, greenhouse gas emissions and water quality degradation”.<sup>68</sup> While the intergovernmental planning for transportation and transit planning addresses environmental impacts on land targeted for development, the process does not account for all spillover effects that the new and expanded infrastructure may have on the environment.

To some extent, infrastructure planning that has strong federal and state govern-

ment roles needs to find ways to provide a greater role for local government. This is particularly relevant in transportation. For example, in the U.S., local government revenue accounts for approximately 36% of total funding for surface transportation and, as discussed above, local governments will need to play an increasingly significant role as declining federal and state budgets force local governments to fill the gap. Local government will need to develop means to address both the financing and planning challenges. A sustainable future for infrastructure development and planning requires communities to conduct comprehensive (general) plans that systematically address issues across infrastructure categories, mitigate deferred infrastructure maintenance, and ensure that the process is integrated with a local government’s capital improvement program in addition to any intergovernmental support.

<sup>68</sup> Shoup and Lang (2011), p. 70

## CONCLUSIONS AND RECOMMENDATIONS

The complexity of the public infrastructure systems described in this chapter, and the myriad challenges confronting these services, require that reinvestment in, planning for, and ensuring the sustainability of the region's infrastructure systems should be top priorities for policymakers and stakeholders. Failure to address the challenges that confront the infrastructure services in Canada and the U.S. threatens the future quality of life in communities and the economic competitiveness of the region.

Two overarching recommendations emerge from the analysis of the region. First, in both the U.S. and Canada there is a fundamental need for the development of a *new partnership model* to guide future federal-state/provincial-local relations that recognizes cities and other local governments as equal and mature partners in the governance of basic local services. Cities and local governments cannot merely be seen as stakeholders. Second, building upon this new partnership model, each country should move to develop and implement a *national infrastructure plan* that includes key roles, responsibilities, and financing mechanisms for the various levels of government and other key stakeholders. These national infrastructure plans could adopt, or be accompanied by, a set of core ideas or principles that would guide future efforts, including:

- Providing predictable, long-term investments that allow for long-term, sustainable planning and investment decisions;
- Simplifying and improving program design to eliminate unnecessary redundancies and inefficiencies in application, review, and approval processes;
- Ensuring flexibility, recognizing differences in the size and characteristics of communities and the need to tailor projects to best fit local needs;
- Building asset management capacity to ensure effective oversight of planning and spending;
- Exploring innovative funding tools that help local governments access resources that grow with the economy;
- Pricing investments in basic local services that accurately account for the construction and ongoing maintenance of facilities, while ensuring broad access to those facilities; and,
- Prioritizing integrated and intermodal systems that link up investments in basic local services and ensure long-term sustainability.

Policymakers in Canada and the U.S. are increasingly moving in positive directions, particularly as local, regional and national economies emerge from the recent economic downturn. However, significantly more policy action is needed in order to maintain and strengthen the region's 'backbone' of economic growth and prosperity.



**Cities and local governments cannot merely be seen as stakeholders.**





# IX. CONCLUSION:

## Global trends in basic service provision

David Satterthwaite\*

### 9.1 INTRODUCTION

By 2030, the world population is projected to exceed 8 billion, rising to 9 billion by 2050. Most of this growth will be in cities and towns, which are expected to grow by 1.4 billion over the next 15-20 years. This trend offers considerable opportunity. Economies, in general, tend to grow as countries become more urban. Concentrations of people and investment, economies of scale and proximity, high levels of exchange, can all foster vitality, innovation and development, ideally with benefits for all. However, urbanization also brings challenges. The future inhabitants of these cities, towns and their surrounding regions will need water, food, shelter, energy, sanitation, and transport, as well as jobs, education, and health care. There are already considerable difficulties in meeting current demands; these are just a prelude to the enormous challenges ahead.

GOLD III focuses on how local governments can help guarantee the universal provision of basic services. It shows progress made by local government in service provision, and by many national governments and international organizations in recognizing the importance of local government in this area, as well as in ensuring more accountable and transparent governance. However, there are also exceptions to the decentralization trend. Some countries have kept decision-making and funding centralized or even recentralized powers, and many international agencies still ignore local gov-

ernments. The importance of basic service provision to economic development is often overlooked, leading to lack of support for local governments in managing urbanization and the demands it generates.

This conclusion considers the global trends in service provision, both the progress and the unmet needs in each region, as well as the levels of investment needed in the near future. It reviews issues of governance, management and funding and considers local government engagement with community organizations and the private sector (international, national, local and informal). The chapter ends by discussing emerging challenges and the role of decentralization and basic services in the MDG and Post-2015 Development Agenda.

### 9.2 REGIONAL OVERVIEW

Local governments across the world are facing, to varying degrees, the effects of the economic and financial crisis, environmental constraints, demographic changes, and rapid urbanization. The financing of basic services is a particularly significant challenge. Beyond these common challenges, the regional chapters in this report present a diverse picture. They show improvements in service delivery in many middle-income countries, serious backlogs in most low- and lower-middle income countries, and new constraints in high-income countries, including changing institutional frameworks, deteriorating infrastructure, and

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aging populations. They also show great variety in how basic services are provided, funded and governed, and in the allocation of responsibility between different levels of government, public utilities, private enterprises (from local to multinational) and civil society. This diversity is found not just between regions, but between and within countries.

In **Africa**, the greatest challenge is still the provision of basic services to both the rural and urban poor, particularly the region's 225 million slum dwellers (almost 40% of the urban population). In **Asia Pacific**, service access and quality varies widely both between high, middle and low-income countries, and between large, well-resourced cities and their smaller counterparts. Access to basic services for the more than 550 million slum dwellers is also a critical problem. In **Eurasia**, almost every country has halted the deterioration in services after the breakup of the Soviet Union, but renovating infrastructure remains a challenge. In **Europe**, access and quality is good but service budgets are under pressure after the global financial and economic crisis. **Latin America** has seen progress in both decentralization and basic service provision over the last two decades, with an innovative role often played by local governments in partnership with civil society. In the **Middle East and West Asia**, service provision is generally centralized at national government level, except in Turkey. Water stress is a particular challenge across the region. In **North America**, the greatest issue is the backlog of underinvestment in infrastructure, a problem, both for improving services and maintaining current levels of provision. In both Africa and the Middle East, many countries face additional challenges of conflict and insecurity that affect basic service infrastructure and provision.

While central governments tend to play an important role in service provision in small

countries, state or regional authorities are often more important in countries with large populations, especially those with federal structures. Countries also differ in how many levels of government they have, depending on their size, population and political factors.

Much of the regional variation in basic service provision, however, relates to the structure of local governments. There are 1.1 million of them in Asia and the Pacific alone, around 2 million globally, and they are very diverse; their jurisdictions range from a few square kilometres to tens of thousands, with populations from a few thousand (or less), to over 20 million. Regional, provincial and state governments can serve over 200 million inhabitants, and the largest metropolitan authorities have populations larger than most countries. It is difficult to generalize about local governments within countries, and even more so at international level. Geographical, social and institutional diversity all influence the capacity of local governments to deliver services. The disparities are even starker in many low- and middle-income countries where rural municipalities face even greater challenges in meeting the needs of smaller, dispersed populations, especially in peripheral regions.

### 9.3 ACCESS TO BASIC SERVICES: THE SCALE OF UNMET NEEDS

**Water and sanitation:** GOLD III points to impressive improvements in both the coverage and quality of water and sanitation services in many regions over recent decades. Many countries in Asia, Latin America, and North and South Africa are approaching almost universal coverage of water from 'improved sources,' meeting MDG targets.<sup>1</sup> However, coverage is declining in Sub-Saharan Africa and there

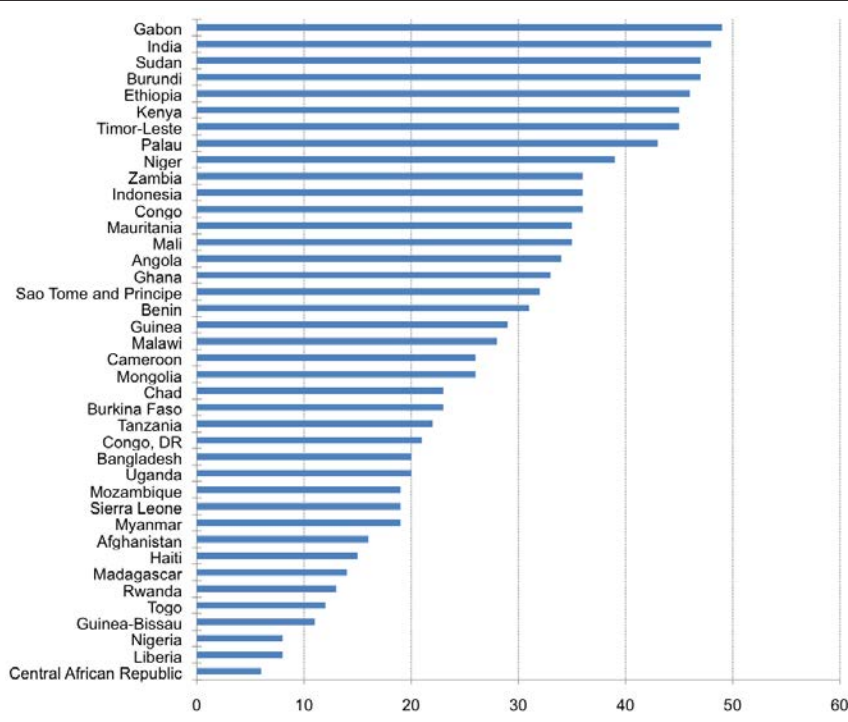
<sup>1</sup> United Nations (2013).

have been setbacks in the Caucasus and Central Asia. The MDG targets on access to ‘improved sanitation facilities’ will not be achieved, despite the remarkable progress in South-Eastern Asia. In 2010, 2.5 billion people were still living without improved sanitation; Southern Asia and Sub-Saharan Africa are especially off-track.<sup>2</sup> Even where targets will be met at national level, there are often disparities between and within regions and cities. The MDG monitoring system doesn’t include data on the extent of water and sanitation provision by city or district. The only disaggregated data globally is on the national proportion of the urban and rural population with provision.

Despite improving urban access globally, there has also been evidence over the last ten years of growing inadequacies in urban areas, especially in the informal settlements that are now home to nearly one billion peo-

ple. Between 1990 and 2010 the number of urban-dwellers without access to improved water sources increased from 109 to 130 million people, while it decreased in rural areas from 1.1 billion to 653 million people.<sup>3</sup> Compounding the situation is the fact that official standards for ‘improved provision’ are inappropriate for assessing adequate water provision in dense urban contexts, and fail to consider either regularity of supply or quality. We will focus, then, on access to water piped to premises – a very different indicator. In 2010, for instance, 85% of Bangladesh’s urban population had access to water from ‘improved sources’ but only 20% had water piped to their premises.<sup>4</sup> The same year, 97% of India’s urban population was reported to have access to ‘improved water’ but only 49% had water piped to their premises. Figure 9.1 highlights countries where much of the urban population still lacks water piped to their premises.

**Figure 9.1 The proportion of the urban population with water piped to premises in 2010**



Source: UNICEF and WHO (2012).

<sup>2</sup> UNICEF and WHO (2012).

<sup>3</sup> UNICEF and WHO (2012).

<sup>4</sup> CUS, NIPORT and Measure Evaluation (2006)

The proportion of the urban population with water piped to their premises has increased by more than 20 percentage points in many countries since 1990, but there are many other countries where this provision stagnated or declined between 1990 and 2010.<sup>5</sup> In 2010, in sub-Saharan Africa, less than a third of the urban population had such provision, lower than in 1990, when 43% were so served. In Southern Asia, the proportion fell from 53% to 51%.

The only urban sanitation data in most countries is on 'improved sanitation facilities.' The introduction to GOLD III describes the inadequacy of this standard in most urban contexts. However, even accepting the definition, half the urban population of many countries still lacks access (Figure 9.2). Most urban centres in Asia and sub-Saharan Africa lack sewers or, if they have them, they serve a very small proportion of the population.<sup>6</sup> For dense cities, high sanitation standards are hard to achieve without sewers.

It is not enough to assume that inadequacies in water and sanitation provision will be automatically addressed as countries

get wealthier. Countries with average per capita incomes between USD 2,000 and USD 5,500, for instance, can differ greatly in levels of provision. Over 90% of the urban population in many Latin American countries with incomes in this range have water piped to their premises; in India and Indonesia, half or less. Governance is a key factor explaining the higher levels of provision in Latin American countries (see section below).

**Energy:** In urban areas in high-income and many middle-income nations, connection to electricity and the use of 'clean' fuels are universal; the main issue is energy costs for low-income groups. In low- and some middle-income countries, the lack of electricity and widespread use of cheap 'dirty' fuels and equipment can cause high levels of indoor air pollution and the risk of fire. An estimated 700 million urban-dwellers lack access clean fuels and 279 million to electricity.<sup>7</sup> Figure 9.3 shows countries with the lowest proportions served.

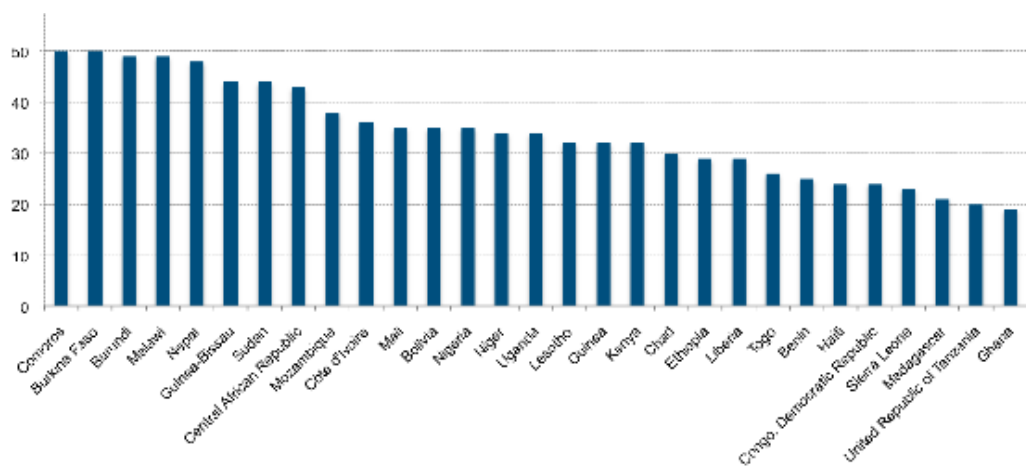
**Solid waste management:** In high-income countries, around 90% of waste is collected and treated, and the implementation of the

<sup>5</sup> Countries with declines of 10-20 percentage points: Madagascar, Kenya, Haiti, Yemen, Zambia, Tanzania, Zimbabwe, Dominican Republic and Malawi. Countries with declines of 20+ percentage points: Rwanda, Nigeria, Mongolia, Sudan and Democratic Republic of the Congo.

<sup>6</sup> UN-Habitat (2006). This is the case for the following cities, each with at least a million inhabitants: Addis Ababa, Bamako, Brazzaville, Dar-es-Salaam, Douala, Ibadan, Kaduna, Kinshasa, Kumasi, Lagos, Lubumbashi, Mbuji-Mayi, Port Harcourt and Yaoundé. A useful new source on the inadequacies in provision for water and sanitation in cities of sub-Saharan Africa is at [www.iwawaterwiki.org/xwiki/bin/view/Articles/AfricanCitiesSanitationStatus](http://www.iwawaterwiki.org/xwiki/bin/view/Articles/AfricanCitiesSanitationStatus).

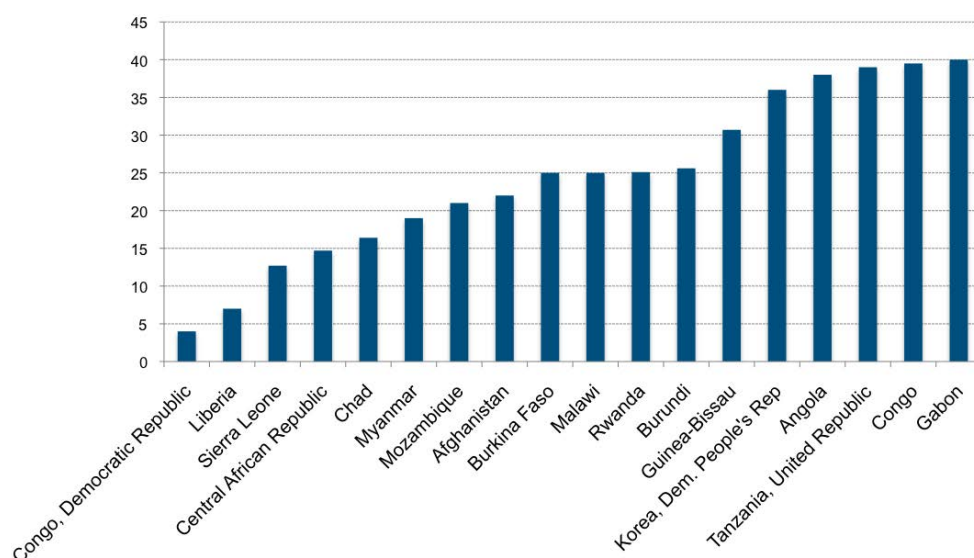
<sup>7</sup> Legros et al (2009)

**Figure 9.2 Urban populations with under 50% improved sanitation, 2010**



Source: UNICEF and WHO (2012) p. 60.

**Figure 9.3 The countries with a low proportion of their urban population with electricity**



Source: Legros et al (2009)

'3 (or 4) Rs' (reduce, reuse, recycle and recover) is improving. Just 40% of waste in OECD countries is sent to landfills. In middle-income countries, the average collection rate is 75%, but nearly two thirds is sent to landfills and the remainder to open dumps. There have been improvements, with increased mechanization, better treatment processes and recycling.<sup>8</sup> In Latin America, use of controlled landfills increased from 22.6% to 54.4% in the 2000s.<sup>9</sup> However, improvements in middle-income countries in other regions have not kept up with increased waste generation. Although low-income countries generate relatively little household waste, they also have low collection rates, averaging around 41%. Africa's collected waste is almost exclusively dumped or sent to poorly engineered landfills. There is also enormous variation in service across and within cities, especially between slum and non-slum areas.

**Public transport:** Many cities in high- and some middle-income countries have extensive public transport systems, with provision for walking and, increasingly, cycling, which helps keep down the proportion of private automobile trips and helps reduce air pollution and traffic congestion. However, there is widespread under-investment in public transport. Most cities struggle with traffic congestion, particularly in low- and lower-middle income countries where roads are often unsurfaced and public transport is poor. Despite efforts to provide innovative transport solutions in recent years, new systems have been insufficient and often poorly integrated with existing transport systems. In most large cities in low- and middle-income countries, the lack of public transport and/or its high cost makes daily mobility a challenge. Low-income communities located in city outskirts face particularly poor transport provision.

<sup>8</sup> Hoornweg and Bhada-Tata (2012).

<sup>9</sup> Latin American Chapter – GOLD III





### Box 9.1 Estimating the costs of basic services, including addressing backlogs

A number of estimates of the costs of addressing backlogs in basic service provision suggest capital sums far beyond current investments. The OECD estimated the need for infrastructure investment at USD 75 trillion by 2030, nearly half of it for water and sanitation. Other sources estimate the infrastructure financing needs for low- and middle-income countries at USD 57 trillion up to 2030.

Sub-Saharan Africa needs around USD 93 billion per annum in infrastructure spending, 15% of regional GDP, with two-thirds needed for capital works and one-third for operations and maintenance. For water and sanitation specifically, 21.9 billion is needed, double the current investment. In Asia, infrastructure investment of USD 4.7 trillion is needed over the next 10 years. For East and South Asian countries, total necessary investments represent between 6.5% and 7% of GDP.

Significant investments are also required in high-income countries to replace aging infrastructure and adapt to new constraints (e.g. climate change and aging populations). In 2012, replacements of basic infrastructure in Canada was estimated at USD 165.6 billion; in the USA, at USD 1.5 trillion in 2009 (more than double planned spending). It is clear that for most countries and sectors, current investments are inadequate, both in terms of absolute amounts and as proportions of the levels required. The gap between needs and investment is still wider if resilience to climate change is factored in.

*Source: OECD (2006); Bilal (2013); Foster and Briceño-Garmendia (2010) p. 8; ADB (2012); North American GOLD III chapter.*

## 9.4 GOVERNANCE AND MANAGEMENT OF BASIC SERVICES

### On decentralization and multi-level governance

Local governments play a critical role in basic service provision. As a result of decentralization, they are responsible for the provision of basic services in most countries, responding to local demands, ensuring accountability and transparency and often deciding on management and funding.

Basic service provision increasingly takes place within complex multi-level, multi-stakeholder governance systems, with increased interaction between levels of government, and an important role for external partners, from large international holdings to small-scale local enterprises and community organizations. The term 'multi-level governance' is used to describe and analyse the effectiveness of the relationships between different levels of governments (vertical coordination) and between local governments (horizontal coordination).<sup>10</sup>

<sup>10</sup> On the concept of multi-level governance used here, see the introduction. Also, Claire Charbit (2011); OECD (July 2013).

The UN *International Guidelines on Decentralization and Access to Basic Services* calls for the clarification of roles and responsibilities in the organization and delivery of basic services and for partnerships between stakeholders, within a framework of decentralization.<sup>11</sup> Three factors influence the extent to which decentralized governance can fulfil its potential of improving the efficiency and accountability of service provision: 1) decisions about which powers are decentralized and to what level; 2) technical and financial differences between services; and 3) the influence of political factors and existing governance on decentralization and on cohesion between levels of government and across regions.

On the first issue, constitutional or legal reforms have generally transferred responsibilities for basic services (except energy) to local governments. The principle of subsidiarity (that the organizing authority be as close as possible to the people, while still being efficient) is critical. Local proximity, knowledge and accountability are important, but so are economies of scale. Some services are better provided locally; others work better on a larger scale, integrating a number of municipalities (e.g. metropolitan transport) or at regional level (watershed management).

In terms of the second issue – technical and financial differences between services – the distribution of responsibilities should be adapted to the logic of each sector. Each stage of service provision can be managed in different ways. Local authorities have traditionally been responsible for water, sanitation, waste and local transport and, in a few cases, for the distribution of electricity. However, the landscape of service provision is evolving due to technological and economic changes. Shared responsibility between supra-municipal entities, intermediate governments, and even with central governments, is increasingly common. In

some cases, central governments has created public operators to manage the whole process, including servicing local populations (often the case for water in West and Central Africa and the Middle East, as well as in some small countries in Asia and Latin America). Regulation and planning is a national responsibility (carried out by sectoral ministries or specialized agencies). Financing is increasingly a shared responsibility, though local governments are still usually heavily dependent on central governments.

This brings us to the third factor: the effective transfer of responsibilities, not only officially, but in practice, is vital. This includes the autonomy of local governments over local policies, management and funding, upward accountability (degree of discretion in decision-making and resource mobilization, etc.) and the coordination between different levels of government. Downward accountability is also critical: if basic service provision is the responsibility of local governments but higher levels of government continue to carry out the tasks transferred to local governments, or fail to support their autonomy, to what extent can local governments be genuinely accountable to citizens?

The regional reports show how different degrees and forms of decentralization across the world affect service delivery. In countries with widespread provision of good quality services, local governments generally have greater autonomy and accountability, legally recognized authority, qualified human resources, the capacity to raise revenues, and expenditures that are significant share of government spending (averaging 24% in Europe).<sup>12</sup> This situation is encountered mainly in high- and upper-middle income countries. While this doesn't mean that multi-level governance issues have been resolved in high-income countries, it does mean that local governments can act effectively in a multilevel governance framework.

<sup>11</sup> See [www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=2613](http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=2613)

<sup>12</sup> See Europe chapter

By contrast, in low- and middle-income countries where basic service provision is still lacking, local governments typically have limited powers and resources. They lack professional staff and revenue raising capacity. Their budgets are small in both absolute and relative terms, (for instance, less than 8% of central government expenditure in Sub-Saharan Africa).<sup>13</sup> In many of these countries, central governments give a low priority to basic service provision and necessary institutional and legal reforms, particularly local government empowerment. The concept of multi-level governance may be difficult to apply in contexts where effective governance has still not been consolidated. However, it can still serve to highlight problematic relationships between levels of government, and between government and other stakeholders, as well as to flag up the negative consequences of its absence on service provision.

One of the main challenges to effective multi-level governance is the unclear distribution of responsibilities and frequent overlapping of roles due to weak institutional frameworks and poorly-implemented decentralization processes. Ineffective multi-level governance can result in weak planning processes, backlogs in budget executions, higher transaction costs, economic inefficiencies and the recentralization of decision-making.<sup>14</sup> Numerous and constantly changing rules and regulations contribute to the confusion. The promotion of sector-wide approaches by international donors and central governments that often fail to include local levels undermines multilevel governance. This failure diminishes local autonomy and accountability to residents. All these dimensions have serious consequences for both the quality of multi-level governance and for service provision. Given the growing complexity in the distribution of powers and the incorporation of new stakeholders into the field of

basic services, there is a need to clarify and regularly review the relationships between institutions.

Local governments are also responsible for cooperating at local level to improve horizontal governance. Inter-municipal cooperation reduces institutional fragmentation, enhances the potential of agglomeration economies and fosters coherence and co-ordination locally as well as with other levels of government. Inter-municipal cooperation is well entrenched in much of Europe and increasingly in other regions, as noted in the chapters on Asia and Latin America.

In order to be effective, multilevel governance should be rooted in the principle of subsidiarity, respect for local autonomy and genuine partnership. GOLD III features examples of successful national policies implemented with strong involvement from local governments, as well as examples of failures where local governments have been excluded from policy-making and implementation.

### On governance and management<sup>15</sup>

At least four clear definitions are necessary to clarify roles in the governance of basic services: a) the identification of the 'organizing authority', b) its institutional powers and human and financial resources, c) the management model and how it is chosen, d) the combination of financing sources. This section analyses three of these four issues (financing is explored in the next section), and explains the governance constraints on local authorities in different regions.

#### ▪ ***A clear role for the 'organizing authority' in ensuring the delivery of basic local services***

The 'organizing authority' is the public authority legally and politically responsible for ensuring provision of basic services in a

<sup>13</sup> UCLG (2011).

<sup>14</sup> This issue was highlighted in the OECD multi-level diagnosis approach to the water sector in high-income countries and Latin America. OECD (2011). See also: Akhmouch (2012).

<sup>15</sup> Also see: Institut de Gestion Délégué (IGD), *Contractual Governance of Basic Network Services*, Working Group chaired by Jean-Pierre Elong Mbassi, 2012

specific geographical area.<sup>16</sup> Its role should be clearly defined in legislation, vesting it with powers to plan and regulate provision, determine the management regime (in-house, external public utility, PPP, etc.), impose standards of quality and access, and ensure affordability, and technical, environmental and financial sustainability. The organizing authority should respond to user needs, identified through consultation and participation.

However, while responsibility is often assigned to local governments (at least officially), their role as organizing authorities often remains unclear or problematic. The extent of this problem varies widely between services and according to the decentralization frameworks in each country.

The role of local governments is most clearly defined in high- and some middle-income countries. Europe has a long-rooted tradition of local autonomy in service provision, although increasing EU regulations could challenge local governments' 'room for manoeuvre'. In the U.S.A. and Canada, and in Australia, New Zealand, Japan and South Korea, both intermediate and local governments also play a dominant role in service delivery.

By contrast, there are countries where the role of local government in service delivery is weak or unrecognized. This is the case where there is no decentralization and central or provincial administrations are the organizing authority, or where local authorities act only as agents of higher level authorities (as in many countries in the Middle East and West Asia, Asia and Africa). The same is true of some countries in Eurasia, where local administration and governance are still constrained by the centralization inherited from Soviet times.

Between these extremes are many countries where responsibilities transferred in law are not decentralized in practice. In

West and Central Africa, for instance, despite decentralization, central governments continue to carry out most of the official responsibilities of local governments, through national agencies and utilities (sometimes in partnership with the private sector), or ad-hoc special units for development and infrastructure projects, often with support from international donor institutions.

▪ ***Institutional powers and human and financial resources to meet the needs of the population***

In addition to a lack of clarity on their role, in many regions local governments lack the resources – human and financial – to meet their responsibilities.<sup>17</sup> GOLD III highlights wide differences between countries and categories of local governments: those in major urban areas are generally better-resourced than those in peripheral and intermediate cities, towns and rural areas, although large metropolitan areas in South Asia and cities in Sub-Saharan countries also have great backlogs in access. Even in high- and upper-middle-income countries, local governments struggle regularly with inadequate resources and unfunded tasks and responsibilities. For example, current public sector and economic reforms in Europe could weaken local government capacity to respond to increasing demands for basic services in some countries.

In other regions, four categories of basic service governance can be identified. In the first, mostly in middle-income countries, progress in decentralization and service provision are positively correlated. Most of Latin America is this group. In the last few decades, national policies have given increased powers and resources to local governments (their share of national expenditure rose from 13% on average in the 1980s to 19–20% at the end of the 2000s).<sup>18</sup> However, this process has been far from homogeneous; in the low- and lower-middle-

<sup>16</sup> The organizing authority and service operator are different roles. The operator (public or private) runs the service on a daily basis. In some cases, the organizing authority may also play the role of operator (e.g. through a local government department). The organizing authority may be a municipality, but the dominant operator can be a public utility owned by the state/province, as for water in Brazil.

<sup>17</sup> See WHO (2012). Over 90% of 74 developing countries assessed have decentralized responsibility for water and sanitation, but only 40% have fiscal decentralization and 60% reported insufficient human resources to operate and maintain urban drinking-water systems, weakening the capacity of local governments to plan and deliver services.

<sup>18</sup> GOLD II, p 99.

income countries of the region, most local governments still have difficulties managing basic services. In many countries, national public utilities continue to provide some key services. In large countries, like Brazil, there are wide differences in provision and intermediate governments play a significant role.

In the second group, there has been little or no progress in decentralization or service provision. This includes much of Eurasia, where local governments are responsible for the provision of basic services but lack sufficient authority or resources to cover operational activities or deal with the consequences of a decade of infrastructure deterioration. Powers and responsibilities are unstable and higher levels of government continue to exert significant control. Particular problems include national tariff policies that do not reflect the increasing cost of basic services and the weak authority of local governments over taxation and tariffs.

Cutting across these two groups are middle-income countries in Asia, where decentralization reforms have been implemented over the last two decades. Progress in service delivery in wealthier urban areas is accompanied by backlogs in intermediate cities and towns. In India, where decentralization is generally stuck at state level, variations are even wider. In China, local governments in large cities have been granted authority to develop and modernize basic infrastructure over the last twenty years; but the situation with regard to basic services is less positive in smaller urban centres and rural areas. Across the region, particularly in India, poor access for slum-dwellers (one third of the population, 396 million people) is the critical issue.

In the third group are most countries in Sub-Saharan Africa. Here, decentralization reforms are underway but local governments

have neither the powers nor the resources to assume their responsibilities. South Africa is an exception; it has made significant progress thanks to constitutionally-entrenched powers for local government and increased collaboration between the central government and empowered local governments, particularly in major cities.

The fourth category includes much of North Africa, where central governments still exercise strong control over basic services, despite the presence of local elected authorities. In Morocco, local governments are more active. Data show improvements in access to basic services in North Africa, but investment is concentrated in coastal areas, leaving intermediate interior cities and other areas under-equipped (arguably a factor in recent popular uprisings in the region). In the Middle East, elected local governments (where they exist) also act under tight central government control, although there have been efforts to promote local management of solid waste and regulation of urban transport. An exception is Turkey, where decentralization has increased local government responsibilities and resources for service provision.

While this simplified typology does not account for all cases, it suggests a significant link between governance, decentralization and improvements in the provision of basic services.

### ▪ **A strategic choice between management models**

Organizing authorities have a range of possible management choices for basic services: direct management; contracting a public provider or outsourcing to a private enterprise; and partnership with NGOs or community organizations. Total privatization (divestiture) is rare. The complexities of service provision do not make the choice



an easy one, and require consultation with stakeholders, analysis of the local context and strategic decisions on the models of provision, financing, and governance for each service.

Public management (either in-house, shared or via public utilities) remains the most widely used model. In principle, this allows the organizing authority to monitor the service, including its objectives and operation, and minimizes transaction costs, overlapping responsibilities and loss of information, as well as facilitating greater coherence and responsiveness. A public operator can also reduce costs, since it does need to make a profit.<sup>19</sup>

However, public management is also criticized for being uncompetitive and inefficient. Many public operators have opaque management structures with little accountability and with decision-making powers concentrated among a select few (see, in particular, the regional chapters on Asia and Latin America). Their cumbersome administrative procedures do not always facilitate a good quality service at a lower cost. Outsourcing service provision to the private sector is sometimes then proposed as a way of improving efficiency and responsiveness to customers' needs. Competition in a sector, in theory, impedes the emergence of 'natural' monopolies, creates incentives for operators to innovate, improves access and quality, and lowers costs, which is ultimately beneficial for local governments, for service users and for taxpayers.

However, as stressed in the European chapter, there is no empirical evidence that one management system is intrinsically more efficient than any other.<sup>20</sup> The optimal choice between outsourcing and direct management can only be made based on case-by-case assessments of each situation by public authorities. This is why the organizing

authority's freedom of choice of management models is essential. This facilitates experimentation and innovation and promotes flexibility and adaptation to local contexts.

In practice, national traditions, sectoral logic and the evolution of the institutional framework, influence how services are managed. In Europe, there are different models: German local multi-service enterprises (*Stadtwerke*) owned by local authorities; the longstanding French experience of using public utilities, private companies, or joint ventures; and the United Kingdom's privatization of most basic services in the 80s. Most of these national traditions have become hybridized to some degree over the last twenty years. Currently, three quarters of Europe's population is provided with water and sanitation by public operators.

In Latin America, 90% of water and sanitation is provided by public operators - utilities in urban areas and, usually, water boards in rural areas. Regional governments play an important role in federal countries, while national utilities dominate in smaller countries. In Africa, many francophone countries retain a single national water utility, while anglophone countries tend to have more decentralized management.<sup>21</sup> In both cases, but particularly in francophone countries, private operators partner with national utilities or manage part of the service. In Asia, many countries have moved from direct management to national and local public utilities and outsourcing, including joint ventures with private partners. In China, development over recent decades has been supported by both strengthening the capacity of local governments, and through PPPs and joint ventures with foreign partners. In most of Eurasia, the majority of water and sanitation providers are owned by municipal and higher-tier governments or by a national utility (as in Tajikistan). In

<sup>19</sup> Cf. For the advantage of public management <http://www.psir.org/>. See also: [http://www.fnccr.asso.fr/documents/APE-GestionPubliqueDeLEau\\_2.pdf](http://www.fnccr.asso.fr/documents/APE-GestionPubliqueDeLEau_2.pdf) (in French).

<sup>20</sup> Bel, Fageda and Warner (2008) and Mühlenkamp (2013).

<sup>21</sup> Banerjee et al (2008) p.7.

recent years, more private operators have been attracted to the utility sector in some countries. In Russia, a quarter of the population is provided with water and sanitation by private operators under PPP contracts, though recent laws have limited the privatization of these assets.

Waste management is the most ‘decentralized’ service in every region, often provided directly by local governments. However, contracts with private operators are common in many countries. In Europe, 80% of waste workers are employed by the private sector.<sup>22</sup> In Latin America, municipalities manage about half of services, the private sector 45%, and cooperatives 3%.<sup>23</sup> In most of Eurasia, local governments contract waste management out to private operators.

Urban transport systems are often run by special public authorities or agencies in high-income countries, though there are also private operators and privately owned systems (i.e. bus and tram networks). In less populated areas, local governments run transport systems that would not be profitable for private operators. In Eurasia and Eastern Europe, after the fall of the Soviet Union, responsibility for urban transport was transferred to municipalities without sufficient funding for operation and maintenance; private operators sprang up as service quality declined. In less affluent countries, local governments have authority over transport routes, maintain roads, regulate traffic, and sometimes own services (e.g. Porto Alegre, Brazil), but the private sector dominates the sector, with small providers playing an important role.

Electricity is not usually a local government responsibility but, in some cases, distribution is shared between central and local

authorities. The regional reports note cases where local governments have promoted renewable energies; or helped isolated areas with locally owned electric utilities or cooperatives (in the USA and Latin America). In China, metropolitan authorities own public electricity utilities.

Whatever the form of management – in-house or not – the organizing authority is responsible for ensuring accountability, control over public goods and equity of access. Therefore, when contracting out services, local governments should ensure systematic monitoring and control of external operators (public or private) and the evaluation of their performance.

In many countries, local governments are ill-equipped to negotiate with private partners, who often have greater expertise and resources to deal with complex contracting processes. Asymmetric relationships can lead to misunderstandings, increasing uncertainty and risk and, in the long term, costs. There is no universal formula for success, but organizing authorities should try to maximise their strengths. The regional chapters present many successful local strategies for allowing competition between operators, while maintaining in-house control and expertise.

This report highlights several local government initiatives that assess municipal and utility performance in service delivery. Voluntary and compulsory benchmarking initiatives include the World Bank’s IBNET, the European Benchmarking Initiative for water, ADERASA, and the network of regulation agencies in Latin America. Local governments should be supported to strengthen their monitoring capacity to promote efficiency in basic services.

<sup>22</sup> Wollman and Marcou (2010); Hall and Nguyen (2012).

<sup>23</sup> See Latin American chapter

## 9.5 FINANCING BASIC SERVICES<sup>24</sup>

The financing role of local governments takes different forms, depending on the extent of decentralization, their resources, and whether they are the organizing authority for services. This section explores the financing of basic services, tariffs and affordability, and investment mechanisms, as well as how these affect the governance of basic services.

### Basic services and public funding

Since the 2000s, there has been a move away from the idea of ‘full cost recovery’ through user tariffs to the concept of Sustainable Cost Recovery (SCR), which relies on a combination of tariffs, taxes and transfers (the 3Ts).<sup>25</sup> SCR also implies the use of the 3Ts to attract loans, bonds or equity for investment in extending or maintaining services. While the 3Ts are the main sources of financing, repayable sources can play a crucial role in upfront investment by extending repayments over the financing period. Three main characteristics of sustainable cost recovery have been identified:<sup>26</sup>

- a mix of the 3Ts to finance recurrent and capital costs and leverage other financing;
- predictability of public subsidies to facilitate investment (planning);
- tariffs that are affordable to all while ensuring financial sustainability.

Sustainable financing requires that sectors are not treated in silos. Cross-subsidization is vital to bridge geographical inequalities and implement inter-sectoral equalization

(where the profits from one service are used to finance deficits in others).

Central governments remain a major source of financing for basic services, but local governments are providing an increasing proportion in high- and middle-income countries. SCR implies that public spending will complement revenues from tariffs, particularly (but not only) in lower-middle- and low-income countries, where affordability is a significant constraint. For example, while tariffs make up 90% of revenue to the water sector in France, they account for just 40% in Korea, and 10% in Egypt.<sup>27</sup> Donor contributions can be an important source of investment capital in low-income countries (equivalent to 1% of GDP in seven countries).<sup>28</sup>

The European chapter discusses a range of ways of financing services: full cost recovery through tariffs (i.e. water in Denmark); financing solely through taxation (i.e. water and sanitation in Ireland); a mix of subsidies for various service providers (i.e. transport in France and Germany); geographical, social or sectoral cross-subsidies; co-financing by national, regional and local public authorities; and European or international funds. Combinations of these models can make it difficult to uncover the “true costs” of service provision. Few countries recover all water service costs through tariffs, and investment is mainly financed by public subsidies (local, national or international). Public transport is also heavily subsidized (by municipal and intermediary government budgets, national grants, and commercial sources).

While progress has been made in tariff collection and financing in Latin America, subsidies from local, intermediate and central governments continue to be vital. In most cases, profits from water utilities are

<sup>24</sup> For more on financing, see Appendix to this report by Claude de Miras, *Institut de Recherche pour le Développement* (France).

<sup>25</sup> ‘Tariffs’ are fees paid by service users, ‘taxes’ refer to funds channelled to basic services by central, regional and local governments, and ‘transfers’ refer to funds from international donors and charitable foundations. Transfers include grants and concessional loans, such as those given by the World Bank, which include a grant element in the form of a subsidized interest rate or a grace period. OECD (2009).

<sup>26</sup> Winpenny (2002)

<sup>27</sup> OECD (2009). See also Appendix of Gold III. However, even in France, public funds represent around 88% of public investment in water sector. Pezon (2009). cited in D. Hall and E. Lobina (March 2012), Financing water and sanitation: public realities, PSI-PSIRU, [www.psiu.org](http://www.psiu.org)

<sup>28</sup> OECD (2009).

insufficient for effective operation, particularly for infrastructure investment. Most countries use tax subsidies and national grants to finance water provision.<sup>29</sup> In the Russia, private water, sanitation and heat suppliers are entitled to central government compensation when tariffs regulations reduce their revenues. In India, 90% of water and sanitation has been publicly financed in recent years.<sup>30</sup> In the Middle East, almost all basic services receive substantial public financing. In Africa, taxes and tariffs make up two thirds of water service financing, with the remainder coming from external sources.<sup>31</sup> Only 30% of utilities internationally generate sufficient revenue to cover operation, maintenance and partial capital costs.<sup>32</sup>

Taxes and subsidies are even more critical for sanitation and solid waste management, as users are less willing to pay for these than for water, electricity, and transport. In high-income countries, waste collection and management represent around 10% of local budgets (with a larger part financed from tariffs), in middle-income countries, around 40%, and in low-income countries, 80-90%. In Latin America in 2010, the average cost recovery from tariffs was around 52%, though some cities do manage to recover costs successfully.<sup>33</sup> In Eurasia, tariffs mostly cover operational costs of waste collection (except in Tajikistan and Kyrgyzstan).

Urban transport is heavily subsidised in almost all regions. In the USA, the main source of funding for transportation, after fares, is a tax on gasoline. However, the gas tax has not been increased since the early 1980s and more fuel efficient vehicles and inflation mean that its contribution has fallen, resulting in a growing backlog in necessary infrastructure investment. In Eurasia, almost 30% of transport financing comes from non-core activities and subsidies. In Africa, urban transport sys-

tems receive regular subsidies from central governments. This is less common in Latin America.<sup>34</sup> Funding for transport in Indonesia comes from direct grants from central ministries and the budgets of provinces, cities and regencies (*kabupaten*).

### Tariff-setting, affordability and collection

As well as contributing to the financial sustainability of services, the payment of tariffs by users also provides an incentive for their efficient use. In recent years, there have been considerable increases in revenues from tariffs.<sup>35</sup> Pricing models and the capacity of service operators and municipalities to collect tariffs and taxes, strongly influence the sustainability and affordability of services.

In Europe, pricing is generally defined locally in contracts between organizing authorities and operators, although European regulations increasingly influence financing and price-setting.<sup>36</sup> In the water sector in Latin America, prices are set by regulatory agencies or national public utilities. In federal countries like Mexico, tariffs must be approved each year by each state. Service providers usually need approval from government to change tariffs.<sup>37</sup> In the waste sector, pricing is even more diverse, with most municipalities undertaking collection in-house.<sup>38</sup> In Africa and the Middle East, national (or regional) authorities set tariffs. In Eurasia, “socially acceptable” tariffs are generally fixed at national or state levels; with resulting gaps between costs and revenues covered by public subsidies.

Collecting tariffs and taxes is a huge challenge in low- and middle-income countries. Household surveys in Africa show about 40% of users not paying for utilities in the water sector – up to 65% in some countries.<sup>39</sup> In many cities, there is no system to

<sup>29</sup> See Latin American chapter, CAF (2012) and ADERASA <http://www.aderasa.org/index.php/es/grupos-de-trabajo/benchmarking>. The analysis is based on a representative sample of 10 countries, 30.7% of existing businesses in water sector and 19.5% of the population in these countries.

<sup>30</sup> Hall and Lobina (2009).

<sup>31</sup> Foster and Briceño-Garmendia (2010) p. 299, table 16.6.

<sup>32</sup> Komives et al (2005).

<sup>33</sup> Hoornweg and Bhada-Tata (2012). See Latin American chapter.

<sup>34</sup> CAF (2011), quoted in the chapter on Latin America.

<sup>35</sup> OECD (2009) p. 17.

<sup>36</sup> See chapter on Europe, 3.5 Financing basic public services.

<sup>37</sup> CAF (2012) p. 25.

<sup>38</sup> See Latin American chapter, particularly Martine et al (2011).

<sup>39</sup> Foster and Briceño-Garmendia (2010) p. 10. See regional reports for different modalities of billing.



identify the address that should be billed. For example, only 15% of the properties in Maputo, Mozambique, are billed. A system to identify streets is often the first step in improving collection, but this is particularly difficult in settlements where formal tenure is not even recognized. Nevertheless, there are examples in GOLD III of the successful implementation of adapted payment collection systems by local governments or service providers with the support of community organizations (e.g. in Manila, Philippines).

Striking a balance between affordability and financial sustainability is a central challenge of tariff-setting, but these goals are not mutually exclusive. According to UNDP, to guarantee the right to water, tariffs should not exceed 3% of household income. In Europe in 2011, tariffs made up a small share of average household incomes (1.7% for water and 4.4% for electricity), but these averages hide substantial variation. If affordability is a concern even in high-income countries, it is even more of a problem in low- and middle-income countries. The affordability debate can be approached from two perspectives: a) a market perspective, assessing household incomes and setting tariffs which poor groups can afford; b) a human rights approach, in particular for water, guaranteeing free access to a minimum level of consumption.<sup>40</sup> The rights-based approach has been boosted by the UN General Assembly's recognition of the right to drinkable water and sanitation in 2010.<sup>41</sup>

In South Africa, the poor are guaranteed minimum levels of free access to water, electricity and solid waste collection.<sup>42</sup> This strategy has dramatically increased access over the past 15 years, though it has not provided universal access to drinking water. It is more common to differentiate prices, generally through cross-subsidization, to support low-income households.<sup>43</sup> An alternative is direct subsidies through targeted income support or cash transfers, as

practised in Chile and Colombia. There are examples of subsidies for service connections rather than consumption in Asia, effective in targeting the poor where network access is low. Subsidies should be predictable, transparent, targeted and, ideally, phased out over time.

This report also gives examples of differential tariffs: social tariffs based on volume or block tariffs in Latin America and Europe; tariffs that vary by geographical area or service standards (e.g. public standpipes with cheap or free water in Africa and Asia); support for community-action that lowers costs and prices (like the construction of public toilets in partnership with NGOs and community associations, in Mumbai); and the use of safety nets.<sup>44</sup> Policies that keep tariffs low for all users are generally problematic, failing both to target poor and to ensure financial sustainability. For example, in Africa, about 90% of people who enjoy subsidies for piped water or electricity services belong to the richest 60% of the population.<sup>45</sup> Affordability for unserved households that rely on informal vendors is also critical. They often pay more than users of network services, with dramatic impacts on household incomes. Local governments should monitor this situation.

### **Local budgets: a key but problematic source of basic service financing<sup>46</sup>**

In most countries, there is greater decentralization of responsibility than of revenues. In OECD countries, sub-national governments account for 22% of general government revenues, but 31% of public expenditure.<sup>47</sup> In Latin America, local governments represent 12% of general government revenues but 19% of expenditure;<sup>48</sup> in Sub-Saharan Africa, around 3% of revenues and 8% of expenditure.<sup>49</sup> There is a striking contrast between high-income countries and most

<sup>40</sup> A Directive of the European Commission also prohibits disconnection of electricity to 'vulnerable customers' in critical times. Same protections exist for water. See European chapter.

<sup>41</sup> UN General Assembly, Resolution 64/292, The human right to water and sanitation, 28 July 2010

<sup>42</sup> See Africa chapter: every poor household receives the first 200 litres of water per day and around 50-100 kWh per month for free. In 2012, the program reached 86% of all households.

<sup>43</sup> Some international institutions are critical of subsidies arguing they 'undermine efficient management'. See Komives et al (2005).

<sup>44</sup> See OECD (2009) pp. 21-22 for a more detailed analysis of the pros and cons of different social tariffs.

<sup>45</sup> Foster and Briceño-Garmendia (2010) p. 11. This policy is also criticized in Eurasia and in some countries in Latin America.

<sup>46</sup> Information for this section is extracted primarily from GOLD II Report and refers to the late- 2000s.

<sup>47</sup> OECD, Claire Charbit (2011); in 27 European Union countries subnational governments represent 5.8% and 33.6%, respectively, of public sector the revenues and expenditures in 2011, for Europe see CEMR-Dexia, Subnational public Finance in the European Union, Summer 2012, 11th edition. The GFS-IMF, give the following average values: In 2008, local governments globally were responsible for 17.8% of public expenditure; for 12.2% of public revenues. In developed countries these percentages are: 22.6 % and 16.3% respectively and in developing countries: 14.5 % and 9.4% (Om Prakash Mathur, 2012.).

<sup>48</sup> Source GOLD II.

<sup>49</sup> Source GOLD II. Thierry Paulais (2012), calculated the ratio of local expenditures /public expenditures at 11.7% in 2010.



middle and low-income countries in terms of local government's share of total public expenditure. In the EU27 it averages 24.3%, 1.3 times that of Latin America and Asia, and three times more than in Sub-Saharan Africa. In the late 2000s, local governments spent around USD 3000 – 4000 per person annually in the USA and in Europe,<sup>50</sup> but just USD 36 in Africa.<sup>51</sup>

The increasing gap between expenditures and revenues is largely due to the limited powers and capacity of local governments to mobilise local resources, one of the main elements of decentralization. Traditionally, local government has been financed from three main sources: 1) local taxes and tariffs for services ('own revenues'), 2) transfers from higher levels of government, and 3) borrowing. Many local governments, however, have a limited capacity to mobilise their 'own' local resources and little control over transfers.

Generally speaking, local governments lack the buoyant tax sources that would produce revenue growth in line with their increasing responsibilities. The potential of property tax, the most commonly recommended and globally used local government tax, remains unrealized.<sup>52</sup> Political barriers include both limitations imposed by higher levels of government and reluctance on the part of local government to raise taxes. The other main source of 'own revenues' is tariffs for services. In Canada and the USA, local governments generate a quarter of their own revenues through fees, in the EU27, 10.6% in 2011. The situation is very different in many middle and low income-countries where tariffs make a limited contribution to local budgets, partly due to affordability problems and partly to weak local collection capacities.

Transfers from central government are second source of revenues. According to a UN Habitat study, they account for 47% of local

government revenues in developing countries and around 36% in developed countries, a percentage that rose in the 2000s, (as the share of local taxes in local budgets decreased).<sup>53</sup> Far from being an 'easy' solution to better service provision, the use of transfers poses a number of challenges, including unpredictability and lack of transparency (as in West and Central Africa); or vulnerability to cuts with poor consultation (e.g. in Eurasia). An excessive reliance on conditional grants can also overly constrain local government autonomy and shift their focus from local to national priorities. Most importantly, substantial revenue-sharing can create perverse incentives for local revenue generation, undermining local resource mobilization and local government accountability.

Resources can also be distributed very unevenly, concentrated in main cities and central regions. Large cities, with their larger fiscal bases and greater capacity to mobilize resources, tend to have less difficulty in financing services, but it is in intermediary cities where the most significant growth is expected and the greatest investment is needed. Many countries lack effective equalization grants, critical to improving access to basic services in the least well-served regions and towns. In Africa, just a few countries (including Morocco and South Africa) have introduced such mechanisms, and in the Middle East and West Asia there are none. The situation is a little better in Latin America. Some Asian countries use equalization transfers (e.g. Australia, Indonesia, and Japan), but others virtually ignore fiscal disparities.

The financial gap between responsibility and the devolution of adequate revenues has resulted in increasing pressures on local government. Global trends towards decentralization have, in fact, often been accompanied by the centralization of revenues.<sup>54</sup> After two decades of gradual decentralization, local governments across the world

<sup>50</sup> But ranges from EUR 15,872 in Denmark to EUR 97 in Malta (see Europe chapter).

<sup>51</sup> See GOLD II. In Eurasia the average annual budget expenditure/person of local governments is around USD 232; in Latin America USD 133; in low- and middle-income countries in Asia USD 92.

<sup>52</sup> On average developing countries raise 0.5% of GDP from property tax compared to 2% in developed countries. Property tax is almost absent in many countries (in Asia and Middle East but also in Africa, Eurasia and Latin America). It is difficult and expensive to administer, all the more so in countries without well-defined property registers, with sizable informal areas, and with weaker local capacity for value assessments, enforcement, and collection. See GOLD II.

<sup>53</sup> Mathur (2012). This trend of transfers is also stressed by the OECD [Claire Charbit (2011)]. In Europe, local taxes and fees increased at a similar rate as grants in the last decade (except during 2009-2010), and represent around 54.7% of local budgets. Grants and subsidies fell in Europe from 2010 to 2012 (-5.5%), while own revenues increased (see CEMR-Dexia, summer 2012). In Latin America, local governments raised about 40% from own taxes and fees (average for 15 countries), with wide variation. In Africa an average of 40% of local budgets come from local taxes and fees and 60% from transfers (sample of 15 countries), with wide variations between countries.

<sup>54</sup> Zhang (2011); cited in Mathur (2012) p. 32.

face increasing problems in generating the revenues to meet the recurring costs of service provision. Problems are being handed to local governments, but not the means to find solutions. Local revenue generation and autonomy are critical to enable local governments to meet their responsibilities for expenditure on basic services in an accountable and efficient way.

However, sustainable financing of basic services is not out of reach, even in the regions with the greatest backlogs in investment. As mentioned in the African chapter, the cost of full household connections in water and sanitation networks is estimated at 1% of GDP, compared with an estimated 6.5% GDP cost of the lack of adequate access to these services. Given their sustained GDP growth rate (beyond 4%-5%), most African countries can build solutions without waiting for outside resources. Other regions are confronted with the same challenge. National and local governments need to join forces to set appropriate taxes and tariffs levels, improve efficiency of budget management and experiment with innovative financing models. In many countries, structural reforms are still required to bridge the gap in basic service access and allow decentralization to fulfil its promise.

### Borrowing and other alternatives for basic service financing

Public financing through borrowing, local taxes and tariffs has been the backbone of most infrastructure investment in Western cities over the past two centuries. Municipalities have led the process, supported by central governments.<sup>55</sup> In emerging countries today, many cities are borrowing to expand provision, and their traditional options are loans and, in some countries, debt obligations on the markets (bonds). Other financing models include land value capture (see Box 9.2) and PPPs, which have not

completely fulfilled the high expectations many had for them (see below ‘partnership with private sector’).

In OECD countries, the financing system is conducive to sub-national borrowing, but elsewhere it is a mixed picture. In many middle-income countries, local government borrowing is legally constrained. In Asia, local governments in middle-income countries are permitted to access loans, but this is difficult in practice. Weak creditworthiness and administrative constraints curb access outside metropolitan areas and large cities.<sup>56</sup> The main exception is China, where infrastructure financing involves local borrowing from domestic and international markets and the use of land as collateral. In some municipalities, land has financed up to 70% of local infrastructure investment through leases or by serving as collateral for loans. The China Development Bank provides about 50% of infrastructure funding, and the *Urban Development Investment Corporation*, created by municipalities, places assets as collateral for local loans under a single umbrella.<sup>57</sup>

In Eurasia, loan mobilization from commercial banks is often constrained by law or the low credit-worthiness of local governments and utilities.<sup>58</sup> In Latin America, local governments in most countries can borrow through loans or bonds, subject to annual debt limits, and large cities are increasingly issuing bonds. Municipal banks or national funds dominate local government borrowing, but commercial banks are also active. Foreign borrowing is not allowed without authorization from higher levels.<sup>59</sup> Long-term financing for local basic services is also difficult to obtain in non-oil producing countries of the Middle East and West Asia. What funds are available are allocated to infrastructure projects in major cities. Some municipal financial institutions have been created in the region to provide local governments with investment capital.<sup>60</sup>

<sup>55</sup> Juuti and Katko (2005); Barraqué (2007), cited in D. Hall and E. Lobina (March 2012)

<sup>56</sup> See Asia Pacific Chapter.

<sup>57</sup> Peterson and Muzzini (2005) pp. 224-225.

<sup>58</sup> See Eurasian Chapter.

<sup>59</sup> Latin American Chapter and GOLD II Report

<sup>60</sup> See MEWA Chapter.

Access to borrowing also remains very limited in Sub-Saharan Africa, with a few exceptions (South Africa). Municipal development funds continue to dominate local investments through grants and borrowing as commercial banks see insolvent or weak local governments as too risky. It is very rare for local governments to issue bonds.<sup>61</sup>

### ▪ *The role of intermediate financing institutions*

Municipal Development Funds (MDFs) or Specialized Financing Institutions (SFIs) have been set up in more than 60 low- and middle-income countries to support lending to local governments and services providers.<sup>62</sup> They are generally state owned, though some have a para-public or private status (e.g. the INCA in South Africa). Inspired by the specialized public banks or funds in high-income countries that provide financing to cities at reasonable costs, these institutions have had disappointing results, associated with the politicization of lending decisions, problematic loan designs, market narrowness or professional weakness.<sup>63</sup> However, there have been success stories (Findeter in Colombia and FEC in Morocco; local development banks such as BNDES and CEF in Brazil). Despite their shortcomings, SFIs play an important role in the credit enhancement of sub-national governments and utilities.

The capacity of local governments and utilities to access lending in order to improve basic services remains an issue. It is clear is that 'business as usual' cannot continue. Investment in urban development requires empowered local governments, an enabling environment to mobilize endogenous financing, and the bolstering of local investment tools to access domestic loans and capital markets.<sup>64</sup>

### ▪ *Other international sources*

International and regional development banks already play an important role in financing urban basic service infrastructure. In Asia and Latin America, they have increased the number of loans in recent years.<sup>65</sup> However, these banks lend to national governments and the private sector, hardly ever granting credits directly to local governments. In order to overcome institutional barriers other options should be explored (e.g. innovative guarantees for sub-national loans to reduce foreign exchange risks).

Donors continue to play a significant role in financing infrastructure investments in some low-income countries. In 2009-10, annual average aid commitments for water and sanitation amounted to USD 8.3 billion, 7% of total aid.<sup>66</sup> There are concerns about the distribution of this aid for water however (around 45% goes to just 10, mostly middle-income, countries). South-South co-operation has a growing role – investments by China and India in Africa rose from almost nothing in the early 2000s, to about USD 2.6 billion annually between 2001 and 2006. In most cases, they provide funds to central governments or to ad hoc financial intermediaries; only a very limited part is then reassigned to local governments. There are very few examples of donors making sub-sovereign loans.

In the framework of the Kyoto Protocol, some innovative sustainable development mechanisms are also contributing to financing specific projects. The Clean Development Mechanism (for reduction of greenhouse gas emissions and clean technology investments) has supported several waste management and transportation projects, but its current resources are limited (USD 70 million in 2012) and approved projects have been concentrated in a small group of sectors and countries (China, India and Brazil). Other mechanisms to finance climate

<sup>61</sup> Paulais (2012).

<sup>62</sup> For Africa, Paulais (2012, pp.162-164) makes the following distinction: SFIs' main focus is lending in middle-income countries; MDFs' purpose is to channel resources from central governments and donors to local governments in low-income countries. The lending activities of this last group are more restricted and require a trusteeship agreement from central government.

<sup>63</sup> GOLD II; Paulais (2012) p. 164.

<sup>64</sup> Paulais argues that in Africa, a paradigm shift is needed. This could also be applied to other regions.

<sup>65</sup> Latin American Chapter and GOLD II Report. USD 2 billion between 2006-2012.

<sup>66</sup> Camdessus et al (2012). Despite the global financial crisis, the total amount of development aid for water and sanitation has risen at an average annual rate of 5% in real terms from 2001 to 2009 (though it did fall in 2010).

change adaptation exist, but access for local governments is restricted.<sup>67</sup>

#### ▪ **Capturing land value for investment**

Capturing land value for public investment is a method unique to local governments. It works on the principle that public works raise surrounding land values, so their costs should therefore be shared by local property owners. Land-based financing has a long history in city development and infrastructure financing in Europe and the United States, and has also been implemented in Asia, Latin America, North Africa, and Turkey, especially where cities are growing rapidly. The enormous urban growth in China over the past two decades has been partially financed by these land value capture mechanisms. The Asian chapter explains how rules were adapted to allow China's cities to use land as collateral for loans, and gives examples of success stories. Land-based

financing mechanisms are closely related to land management and planning, which are also crucial to the provision of basic services. Most importantly, land-based financing requires the development of land ownership records which, in the long run, make for easier 'own revenue' mechanisms to be developed (see Box 9.2).

Closing the financing gap will require countries to mobilise financing from a variety of sources, which may include reducing costs (via efficiency gains or cheaper service options), increasing basic sources of finance (i.e. tariffs and taxes) and mobilizing repayable finance. Marshalling local savings for local capital investments will benefit national economies, prevent savings from being invested abroad, and reduce foreign-currency borrowing requirements. Given rising pressures on public finances in donor countries, transfers are unlikely to grow significantly in the coming years, meaning that



#### **Box 9.2 Land-based financing of urban improvements**

Some land-financing techniques generate revenue before infrastructure investment is undertaken, while others involve borrowing during the construction period, with debt repaid from subsequent increases in land value. In low- and middle-income countries where it is difficult to obtain long-term credit to finance urban infrastructure, the up-front nature of the revenue generated by land financing adds flexibility to financing decisions. However, land-financing instruments are not long-term generators of recurring revenue for operating costs. They are capital financing opportunities, whose revenues should be dedicated to capital costs and used to finance significant leaps forward in infrastructure capacity. Principal tools and related examples:

**Land asset management:** public entities undertake a strategic examination of their balance sheets and decide to exchange underused or vacant land for infrastructure. A critical element of this approach is to lease or divest non-core land assets so that local government can concentrate its financial resources and management on core infrastructure.

**Sale of development rights:** Sao Paulo (Brazil) sold additional construction rights (to construct at greater densities in an urban areas or convert rural land

<sup>67</sup> Global Environment Facility (GEF), Carbon Partnership Facility (CPF), Climate change fund (ACF-ADB), Carbon Market Initiative, Clean Energy Financing Partnership Facility (CEFPF), Global Climate Partnership Fund.

to urban use) to help finance public investment in designated growth areas in the city.

**Betterment levies:** the state taxes a portion of land-value increases resulting from infrastructure projects. Colombia has used such a betterment levy, the *contribución por mejoras*, to finance public works. Bogotá has simplified the approach and converted the betterment levy into a general infrastructure tax, packaged into a citywide bundle of public works.

**Developer exactions and impact fees:** developers install on-site and neighbourhood-scale infrastructures at their own expense or pay for infrastructure provided by public authorities. Impact fees cover the external infrastructure cost of the new development (e.g. in the USA).

**Developer land sales:** developers install public infrastructure in exchange for land. It is used to develop new towns and urban areas in partnership with private investors, usually consisting of a mix of affordable housing, large-scale public housing and industrial zones (e.g., in Copenhagen and North Africa). Developers are required to build roads and to help pay for major trunk lines that deliver water, wastewater removal and treatment systems, and street lighting.

**Sale or lease of publicly held land:** public land assets are sold and the proceeds used to finance infrastructure investments (e.g. in China). For a major urban highway project, a municipality can transfer the land surrounding the highway to a public-private development corporation, which borrows using the land as collateral to finance highway construction, and then repays the debt and makes a profit by selling or leasing land whose value had increased with its access to the new highway.

Source: Peterson (2009).

these resources will need to be spent strategically to maximise their leveraging capacity and effectiveness.

and joint public-private ventures. In many low- and middle-income countries, small-scale local operators and the informal sector play a complementary role in poor and peripheral urban areas.

## 9.6 PUBLIC MANAGEMENT AND PARTNERSHIPS

Basic services are provided by a large variety of operators: local governments; local and national public utilities; small local businesses; international private companies;

### Local public management of basic services and infrastructure

Public management of basic services is the most common model of basic service delivery in most countries in the world. Decentralization has therefore meant an increasing



role for sub-national governments. Public management is evolving fast; in Europe, the strong push for ‘Europeanization’ led to the emergence of hybrid management models across the region, though national traditions still exert an influence. In the USA, dominant management models are special purpose authorities or special district authorities for specific services (water and sewerage, public transportation, and solid waste) as well as direct provision by local governments. These special authorities operate as quasi-public, quasi-private enterprises, and are self-governing, with their own board of directors, including local government officials. Most transport systems are operated by special purpose authorities, the largest of which is the Metropolitan Transit Agency of New York. Such bodies are responsible for 39% of US urban transport services; local governments provide 32%.

High-performing local public utilities have emerged in other OECD countries, such as Japan and Korea. The Arisu Office of Waterworks distributes water to 10.4 million people in the Seoul metropolitan area.<sup>68</sup> Many such public utilities are at the forefront of innovation in their sectors (using smart technologies to reduce water consumption, waste-to-energy technologies, zero waste strategies, etc.). Local public utilities or Special Purpose Authorities have also been developed in middle-income countries. As a result of the strong push from international organizations in the last two decades, many local and national public services have been transformed into corporatized entities, with independent boards and management.<sup>69</sup> Public utilities allow different levels of government to pool their resources to finance major projects and attract professional staff. Consolidating management under one structure improves credit ratings to enable borrowing from domestic and foreign sources. In Latin America, one of the outstanding examples is the *Empresas Públicas de Medellín* (EPM)

owned by the municipality of Medellín, Colombia. It, and other local or state public utilities in Latin America (such as Sedapal in Lima and Sabesp in Brazil), are regarded as among the best-performing enterprises regionally and internationally.

Indeed, some SPAs behave like private companies, developing joint ventures with the private sector, as has been the case in China. Shanghai moved from a traditional direct, in-house management system in the early 90s, to the use of numerous, publicly traded, public utilities. Some were joint ventures with international companies for the provision of basic services.

Shared management between public institutions, particularly inter-municipal co-operation, has developed in many countries in Europe, Asia and Latin America. As mentioned in the introduction, these inter-municipal partnerships are particularly valuable for achieving economies of scale across municipal boundaries (for instance, in the management of solid waste, waste-water treatment, and public transport). In Asia, the Asian Development Bank has promoted ‘city cluster development’ to bring together groups of local governments to adopt regional plans and join up basic infrastructure.

Metropolitan authorities constitute a unique form of inter-jurisdictional cooperation between local authorities. Unified metropolitan bodies can reduce fragmentation, achieve better coordination of basic service delivery, develop efficient management arrangements and pool their financial resources. A potential disadvantage of such unified governments is that they can be less accountable to local residents.

While large public utilities and SPAs are usually found in major cities, smaller cities and towns tend to use direct, in-house

<sup>68</sup> Seoul Metropolitan Government, *Mission of Seoul Waterworks*, Presentation at the UCLG-ASPAC Workshop on the GOLD III chapter, held in Gwangju, Korea, May 16, 2013.

<sup>69</sup> The main characteristic of public utilities or SPAs is their legal status. While independent, the enterprises are still ultimately responsible to local, regional or national governments (sometimes all of them). See Asia Pacific and Latin America Chapters.

management. GOLD III provides examples of many small- or medium-scale in-house models providing local basic services. The management of solid waste, for example, is usually carried out at the city or municipal level through sanitation departments or through cooperation between neighbouring municipalities, especially for final disposal. However, such in-house waste management costs can represent a high percentage of local budgets (up to 80-90% in low-income countries).<sup>70</sup>

Despite progress, many public utilities and municipal service providers still lack the institutional strength, human resources, technical expertise and equipment, or the financial or managerial capacity to effectively provide universal quality basic services. In most of the 70 countries surveyed in the 2012 GLASS Report, infrastructure in the water sector was in a poor state of repair and maintenance.<sup>71</sup> The Latin American, African, Asian and Middle East chapters report problems of inefficiency (leakage, weak maintenance, weak capacity to collect fees, overstaffing, etc.), but these problems are not unique to publicly managed services.<sup>72</sup> Such issues can be improved by the use of decentralized cooperation between public bodies, known as public-public partnerships (PUPs).<sup>73</sup> Over the last 20 years, 130 PUPs have been used across 70 countries in all regions of the world. Since 2006, the United Nations has actively supported such partnerships through the Global Water Operators' Partnership Alliance (GWOPA) co-ordinated by UN-Habitat.

Local authorities should remain attentive to their capacity to oversee public utilities and SPAs and ensure their accountability to users and citizens. They should combine efficiency in service provision with access to quality services for all inhabitants, and contribute to the sustainable development of cities. Reducing inefficiencies and promoting cooperation between municipalities will increase the

resources that can be mobilized to extend access and the quality of basic services.

### Partnerships with the private sector

For most of the 20th century, it was assumed that public authorities were the most suitable providers of basic services. However, limited progress in many countries and urban areas led to the promotion of reforms that sought to contract provision with public utilities or delegate to private operators. The last two decades have seen an increasing participation of the private sector in basic service provision, particularly in middle-income countries.<sup>74</sup>

However, as Figure 9.4 shows, the bulk of private investment has followed the global financial cycle and currently is declining. It has been concentrated in emerging countries in a few regions (Latin America, East Asia and Eastern Europe, particularly in emerging economies) and sectors (telecoms, energy, transport and, to a lesser extent, in water).

The hopes in the 1990s that private sector participation and concession schemes would bring new investment and extend access, particularly in low-income countries, have not always been fulfilled. Some early uses of concessions underestimated the cost of renovating and extending infrastructure and over-estimated the potential for cost-recovery through user charges. The failure of some PPS schemes in Latin America in the early 2000s was attributed to poor risk management and capacity problems, as well as the investment environment. There was a shift from the private concession model to other forms of PPPs, combining private operation with public investment, including leases (*affermages*), mixed-ownership companies, and management contracts (sometimes called 2<sup>nd</sup> generation PPPs).<sup>75</sup>

<sup>70</sup> Hoornweg and Bhada-Tata (2012).

<sup>71</sup> WHO-UN WATER (2012); See also, OECD (2009).

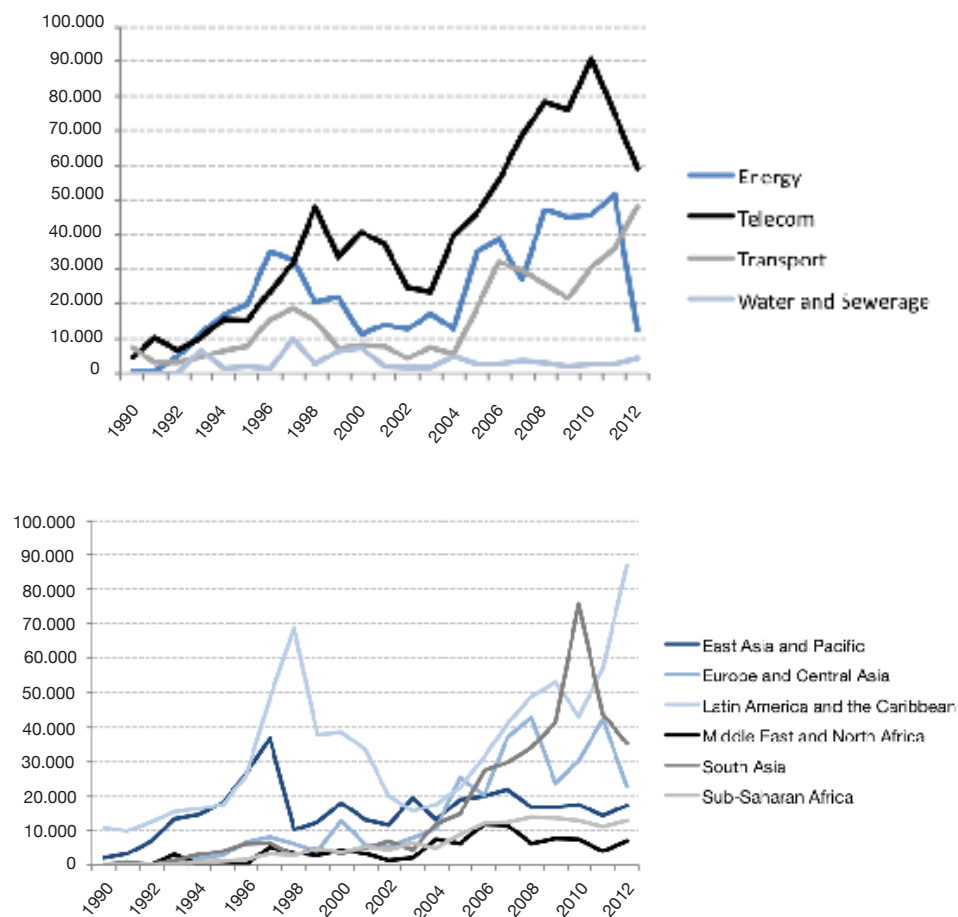
<sup>72</sup> See also OECD (2009).

<sup>73</sup> Hall et al (2009) and Hall et al (2011).

<sup>74</sup> For water, see: Marin (2009).

<sup>75</sup> OECD (2009); Marin (2009); Hall et al (2011).

**Figure 9.4 Total investment commitments in PPP by sector and region 1990-2012**



Source: WB-PPIAF, *Private Participation in Infrastructure (PPI) Project Database* (extracted data, July 2013)

The performance of PPPs over the last 20 years has been mixed. Their biggest contributions have been to efficiency and service quality. Leases focused on service quality (e.g. reducing water rationing) and operational efficiency (e.g. bill collection, productivity, and reduced water losses) performed better, while concessions had greater difficulty meeting their contractual targets of increased investment and improved coverage.<sup>76</sup>

The regional chapters give various examples of public-private partnerships, for example, public transit managed by local/state/provincial governments in North America, where public and private capital

and equity were combined, allowing private sector operators to charge user fees to finance and maintain systems (e.g. the Reno Transportation Rail Access Corridor and the Skyway Bridge concession in Chicago). In the waste sector, new solid waste disposal technologies and a changing regulatory environment encouraged the private sector to develop the expertise and investment capital to respond to recycling, and take advantage of opportunities to recover energy from waste.<sup>77</sup> There are also examples of PPPs that work with several local governments in low- and middle-income countries,<sup>78</sup> as well as other models of private participation, such as DBO or BOT. In urban transport, the picture is more mixed; many

<sup>76</sup> Marin (2009): Out of 65 developing countries that embarked on water PPPs during the past two decades, at least 41 still had private water operators, and 84% of all awarded contracts were still active at the end of 2007; 24 countries had reverted to public management, and several contracts had been terminated early following conflicts between the parties.

<sup>77</sup> Extracted from the North American Chapter.

<sup>78</sup> See also, Banerjee et al (2008).

large cities in low- and middle-income countries externalize services through concessions or licences, with small private operators predominating.

A study published by PPIAF-World Bank argues that the difficulties experienced with concessions in the water sector suggest that this option is generally more appropriate for upper-middle-income countries (where medium and long term private borrowing in the local currency is available). For low- and middle-income countries, they suggest that PPPs will probably need to be funded by public money and that the main contribution of private operators will be in the improvement of the operational efficiency of services.<sup>79</sup>

The role of the private sector in basic service provision is subject to debate in several countries. There has been a trend toward the re-municipalisation of basic services in some European cities;<sup>80</sup> the municipality of Paris, France, chose to take water services back under municipal control in 2010.<sup>81</sup> In 2011, Italian citizens, through a referendum, repealed laws allowing local public services to be entrusted to the private sector.<sup>82</sup> In North America, Latin America, Asia and sub-Saharan Africa, some significant PPPs ran into difficulties associated with a breakdown in the relationship between the state and the private company or increasing public opposition.<sup>83</sup>

As the regional chapters stress, an effective, well-enforced regulatory framework is essential for getting the best out of private enterprises. Many countries have implemented reforms to facilitate the participation of private sector in service provision in recent years; however, in some regions (e.g. Latin America) local governments consider legal frameworks in relation to tendering, contracts and the oversight to be insufficient or unimplemented. The insufficient clarity of regulatory frameworks also

discourages domestic and foreign business investment.

PPP projects have proved to be complex undertakings, but successful cities have to encourage and retain private investment. In almost all contexts, the scale of necessary investments in infrastructure and service provision in cities will require the contribution of all stakeholders.<sup>84</sup> Experience has demonstrated the contexts in which PPPs work best. In order for partners to contribute to reinforcing public policies and local institutions, local governments need the capacity to be active and demanding partners.

### The “other private sector”

Small private enterprises in both the formal and informal sectors play an important role where the quality and extent of provision by official service providers is lacking, and provide a high proportion of the urban population with basic services.<sup>85</sup> They range from individual operators to small enterprises serving hundreds of households. Some operate under contracts with utilities, others have specific licences, and many are unregistered. There are also cooperatives and community-groups organizing, managing and financing the installation of street sewers, public toilets and washing facilities with the support of local governments. Much of this happens in informal settlements, where small-scale service providers may serve communities of up to 50,000 people.<sup>86</sup> Beyond responding to needs, small-scale operations and the informal sector are an important source of employment and innovation (the recycling industry has a turnover of over USD 1 billion in Latin America).

Mozambique was a pioneer in delegating water service delivery to small-scale operators in 365 small municipalities.<sup>87</sup> Similar initiatives have spread to in other African countries, resulting in a hybrid model of

<sup>79</sup> Marin (2009) p. 8.

<sup>80</sup> 40 French municipalities decided to re-municipalised part of water services, as well as Budapest, Napoli and some cities in Germany (see example of Bergkamen in European chapter). In France, a study from 1998-2008 covering most of the French water market (where private water management covers more than 60% of the population), found 107 local authorities that switched from private to public while 104 switched from public to private. On the principles that guide part of the debate on ‘re-municipalization’, see [http://www.fnccr.asso.fr/documents/APE-Gestion-PubliqueDeLEau\\_2.pdf](http://www.fnccr.asso.fr/documents/APE-Gestion-PubliqueDeLEau_2.pdf) or Wollman (2013).

<sup>81</sup> See European Chapter. Pigeon et al (2012).

<sup>82</sup> See European chapter and also Hall et al (2011).

<sup>83</sup> Hall et al (2005) and Cheng (2013). Some examples mentioned are: Malaysia, Manila (Philippines), Argentina and Bolivia. Hamilton (Canada) In Africa, contracts were terminated in Gambia, Mali, Chad, Nkonkobe (South Africa) and Dar-es-Salaam (Tanzania, 2005). Most recently in Morocco, increasing popular dissatisfaction with private operators in the water sector due to increasing tariffs.

<sup>84</sup> Brugmann (2012).

<sup>85</sup> Hasan (2006); Ostrom (1996); OECD (2009).

<sup>86</sup> PPIAF, Gridlines, Note n°9, June 2006.

<sup>87</sup> Etienne et al (2010).

<sup>88</sup> Cited by Paulais (2012).



provision, especially in peripheral urban areas where small autonomous systems (with wells pumps, storage and piping systems) ensure distribution to a group of houses or a neighbourhood.<sup>88</sup> The share of the population with water provided by such operators in major urban centres in Africa ranged from 21% in Dakar to 80% in Khartoum. Levels of informal provision of electricity in the region are similar.<sup>89</sup> Municipal authorities have also partnered with small private entrepreneurs to provide toilets or sanitation (in Suzhou, China, and in partnership with a federation of women slum-dwellers in Mumbai, India). Such initiatives have produced better quality, cheaper, and better managed solutions.<sup>90</sup>

In most cities in Africa, Asia and Latin America, small, informal modes of public transport (by minibus, scooter, tricycles and shared taxis) are central to transport services. In Latin America, up to 30% of journeys are made in informal transport, with a much higher proportion for low-income groups. The lack of formal solid waste services also often leads to the emergence of cooperatives, micro enterprises, NGOs and informal workers catering to households and businesses. In Latin America, these providers represent an estimated 3.3% of activity in the sector, rising to 7.8% in large cities, particularly in slums and informal settlements. The number of informal recyclers is estimated at over 400,000 people across the region.<sup>91</sup> In many cities in Asia and in Africa, tens of thousands of people make a living through waste collection,<sup>92</sup> sometimes competing with formal systems and challenging weak municipalities. For example, in Addis-Ababa, Ethiopia, users refuse to pay the municipal tax for waste collection, preferring to pay informal waste pickers directly. This reduces municipal revenues for financing the less visible aspects of waste transfer and management.<sup>93</sup> There are also good examples of partnerships between waste pickers and local governments, which have been strengthened

where waste pickers have organized to bid for local government contracts.<sup>94</sup> This approach can be less than half the cost of formal provision.<sup>95</sup> However, if efforts are not made to improve working conditions and integrate the informal sector, such savings can come at the price of safe working conditions of the waste-pickers operating in the informal sector.

Small-scale providers have an especially important role to play in the medium-term where urbanization has outpaced the ability of local government to provide services. Small providers can be a second-best solution, as is the case with the use of public standpipes or dry sanitation in South African cities, or street lighting and solar lanterns in Kenya. Such initiatives provide households with services at a cost slightly higher than the traditional alternatives, but still much cheaper than the most up-to-date services. In some cases, they may not represent a viable long term solution.

The role of local governments in regulating and overseeing these small providers is crucial because of potential consequences for human safety and the environment. For example, as reminder in the Asian chapter, competition between transport providers causes traffic congestion and air pollution from poorly-maintained vehicles, as well as higher accident rates due to a lack of safety standards. Private sludge removers sometimes just dump waste from septic tanks into rivers and streams. Private waste collectors may be more interested in waste that can be recovered or recycled, neglecting unprofitable wet and malodorous waste. Private water suppliers in slum areas charge much higher rates than municipal utilities and often provide contaminated water, and the uncontrolled exploitation of groundwater can have serious consequences. Local governments should not only regulate small providers, but also support them to build a more integrated system of urban services.

<sup>88</sup> PPIAF, Gridlines, Note n° 9, June 2006. McGranahan et al (2006).

<sup>90</sup> Burra et al (2003).

<sup>91</sup> Fergutz et al (2011).

<sup>92</sup> Keita (2001).

<sup>93</sup> AFD (2007); cited by Paulais (2012).

<sup>94</sup> Terrazza and Sturzenegger, 2010 quoted in Latin American Chapter. In Brazil, legislation supports the cooperation between the public and informal sectors in waste collection and recycling.

<sup>95</sup> Kadalie (2012).



### Local government and community provision

In many low- and middle-income countries, where poor neighbourhoods and informal settlements are part of urban landscape, there is a long tradition of local communities playing a role in basic service provision, often with support from NGOs and community organizations. Infrastructure for basic services takes a long time to reach these areas, and many inhabitants will continue to depend on community provision for the foreseeable future.

In India, Civic Exnora started in 1989 as a community-based movement to manage solid waste. It has grown into an organization of around 5,000 groups whose activities include clean and green programmes, often in collaboration with local governments and municipal services. The Latin America and Africa chapters provide numerous examples of government support for community initiatives to maintain roads, collect waste and improve water infrastructure.

The acceptance by local governments of the necessity for upgrading programmes in informal settlements is a significant step to improved basic service provision and increased coverage for urban populations. Even where upgrading is community-led, partnerships with local governments are necessary to regularize tenures and provide essential trunk infrastructure. The chapter on Asia Pacific includes examples of community-led upgrading programmes that have provided basic services to hundreds of thousands of low-income people in Thailand and India, with strong support from local governments in connecting upgraded settlements to infrastructure networks. Hundreds of local governments in Africa and Asia have established formal partnerships with local federations of slum-dwellers and many cities have set up local funds (with contributions from

local governments and slum-dweller associations) to improve housing and services.<sup>96</sup> UCLG Africa has such a partnership with the African branch of Slum Dwellers International. In many cities, however, these initiatives are still not the norm.

They are other more problematic examples of local communities, supported by international organizations and NGOs, creating parallel mechanisms to support the delivery of local services, and bypassing local decision-making processes and institutions. While such efforts can improve service delivery, they ultimately undermine the legitimacy and effectiveness of local government if their systems are not integrated into local governance frameworks.

Local government policy for basic service provision must address the realities of poor residents and informal settlements. This means supporting communities and NGOs and encouraging their essential role in the oversight of health and environmental issues. For example, the “Know Your City Campaign”, a joint initiative launched by UCLG-Africa and Slum Dwellers International, with the financial support of Cities Alliance, mobilizes local communities to collect data in Epworth, near Harare, in Zimbabwe, and in Lusaka, Zambia. Informal settlements are then organized and involved in innovative mapping and city planning projects.

## 9.7 CURRENT AND EMERGING CHALLENGES IN MEETING DEMANDS FOR BASIC SERVICES

### Reaching the unserved

Despite progress in the last decade, over 780 million people still lack access to improved drinking water, 2.5 billion lack improved

<sup>96</sup> Satterthwaite and Mitlin (2014).

sanitation and almost 1 billion people still live in slums with limited access to basic services. The percentage with population with access to quality basic services is declining rather than improving in many urban areas in Sub-Saharan Africa and South Asia.

Massive investments are needed to expand access to basic services (see Box 9.1). This necessitates strong political will and financial investment at all levels of government, as well as from international institutions. For many low-income countries, the investments required exceed domestic funding capacity and will require better targeting of international aid. GOLD III has demonstrated that localized investment and implementation strategies and the increased involvement of local governments and stakeholders are critical.

The chronic shortage of financing for basic services is a crucial factor in their low efficiency. Resources are inadequate to extend access and improve quality; existing infrastructure and facilities are worn-out in many regions; inefficiencies are widespread in all basic services. In Africa, the World Bank estimates that reducing inefficiencies in the water sector and a better-targeting of subsidies at the poor could contribute USD 2.9 billion annually to the current funding gap of USD 14.3 billion.<sup>97</sup> The same is true in Latin America, where the gap is USD 8.1 billion.<sup>98</sup> The improved management of services, essential to reduce inefficiencies, requires the strengthening of local governments and their utilities, as well as improvements to multi-level and multi-stakeholder governance. These challenges require the revision of local and national policies and priorities, improved partnerships with other local governments and other stakeholders (particularly the private sector and local communities).

The ideal is regular supplies of piped water and a toilet in each home, access to elec-

tricity, regular collection of solid waste for each household, and safe, affordable public transport. Where funds and capacities are lacking and backlogs are immense, local governments should explore and support, in collaboration with experts, intermediate solutions that can bring immediate benefits to low-income groups, including alternative systems. Better quality provision can then be introduced when funding and capacity are available.

## Participation and accountability

This report demonstrates clear but uneven progress in citizen participation and accountability in the field of basic services. Frequently, public participation is understood as the right of citizens to have access to information about tariffs and budgets, to make complaints, or sometimes to co-produce services (where access is limited or non-existent). Paradoxically, public participation in decision-making is deemed to be of minor importance.

In several regions, citizen participation takes the form of open meetings of local councils to debate services provision policies, online debates, public meetings, referendums and public consultations. Service users can participate in the establishment of water tariffs and quality standards in England, in Consultative Committees for Local Public Services in France, or appeal municipal decisions and to propose users initiatives in Finland. Consultation and control mechanisms in management and decision-making are also used in Latin America (Colombia, Chile and Peru). In some cases, despite positive legislation, service users stress the difficulties of genuine participation due to asymmetries of knowledge and resources between service users, private providers and public authorities.

<sup>97</sup> Foster and Briceño-Garmendia (2010) p. 299, table 16.6.

<sup>98</sup> Foster and Briceño-Garmendia (2010) p. 8; CAF (2012) pp. 44-45.

Mechanisms to gather and respond to user complaints include client panels, electronic feedback systems, service inquiries, and feedback boxes. In some countries, there are national and local public consumer protection bodies. The idea of local ombudsmen has gained ground in Europe and Latin America. There have also been efforts at national and local level to include users in the evaluation and control of public services and municipalities through consultation, open (online) monitoring systems, or surveys, mostly in Europe. In Latin America, the '*Bogotá Como Vamos*' project is another example. However, in many countries, it is not easy for users to access the information to participate effectively. Local governments are best placed to collect and publish this data, both for services that they provide directly and those provided by external stakeholders. This information is essential in the local and national policy-making, particularly for control and monitoring and to curb corruption.

An important dimension of accountability is dialogue between local governments and workers and trade unions. This is a tradition in most of Europe. In Africa, Asia and Latin America, there is a tradition of neighbourhood organization and mobilization to demand and defend local services.

One of the most innovative examples of citizen participation is the participatory budgeting process launched in Porto Alegre in the early 90s, now active in over 1,000 cities.<sup>99</sup> An outstanding example is the city of Chengdu, China, where over 50,000 projects were implemented in 2,300 communities in recent years, resulting in great improvements in day-to-day life for millions of people. Participatory budgeting also introduced local democratic changes through resident participation in deliberations. (For more examples, see Box 9.3).

## Strategic planning

The governance of basic services is inextricably linked to spatial and long-term strategic planning. Many cities need to plan their future to reverse the deterioration in living standards, reduce the number of slums and accommodate the 1.4 billion new urban residents projected over the next twenty years. This planning includes infrastructure for basic services, which cannot be improvised; repayment takes years, even decades. Planning plays a key role in enabling cities to benefit from economies of agglomeration. Therefore, infrastructure plans and priorities for basic services should be informed by a clear understanding of the spatial distribution of current and future economic and social activity.

A spatial perspective sheds light on the need to coordinate across sectors, with due regard to social, environmental and economic contexts. The urbanization process also requires that each city and its rural hinterland be treated as an integrated economic and social unit. Prosperity and density go together. Concentration triggers prosperity in both urban and rural areas. The rural versus urban debate should be replaced by an understanding of their interdependence. The economic and social integration of rural and urban areas is the only route to growth and inclusive development.

## Climate change and disaster prevention

A high proportion of cities globally have experienced extreme weather events (including storms, floods and heat waves) that have caused disasters,<sup>100</sup> with cities in Asia, Latin America, the Caribbean and North America most at risk. The cost of these disasters has been growing rapidly, and climate change is likely to increase their frequency and intensity.<sup>101</sup> The impact of these extreme weather

<sup>99</sup> Cabannes (2013); Cabannes and Ming (2013).

<sup>100</sup> United Nations (2012); IFRC (2010).

<sup>101</sup> IPCC (2012).



### Box 9.3 Participatory budgeting and basic service provision

A study for GOLD II focused on participatory budgeting in 20 urban centres to see how it influenced basic service provision. The urban centres ranged from small centres to large cities, in Europe, one North America, Asia and (mostly) Latin America.

Within these urban centres, 20,000 projects were funded through 74 participatory budgets (PB) processes with a total value of around USD 20 billion. The proportion of the municipal budget allocated through participatory budgeting was generally between USD 8 and 30 per inhabitant – although it reached over USD 200 in Ilo (Peru) and USD 180 in Port Alegre. Over a third of all projects were related to one or more basic services.

The priorities in basic service projects supported by PB in 18 cities were as follows:

- 1: Roads, paths, opening up alleys and paving of streets (in 17 cities and often the first or second priority).
- 2: Water and sanitation (in 13 cities and ranked first or second in six cities)
- 3: Energy and public lighting (in 13 cities, ranked first or second in five cities)
- 4: Water drainage (11 cities)
- 5: Transport and increased mobility (10 cities)
- 6: Potable water supply (9 out of the 18 cities. Many of the cities already had close to 100% water coverage, but this was the first or second priority in 3 cities)

Solid waste collection and management related projects were carried out in only 5 of the 18 cities but were the first or second priority in 3 cities.

Source Cabannes (2013).

events varies, and is influenced by the quality of housing, infrastructure and services, as well as by whether local governments have managed expansion in ways that avoid the occupation of high-risk sites. In cities where a substantial proportion of the population lives in informal settlements lacking basic infrastructure and services, risks are particularly high.<sup>102</sup> This is especially true for informal settlements that have developed in flood plains or on steep slopes because no other (safer) sites were available.<sup>103</sup>

In some countries and regions, freshwater resources are being depleted and water

stress is likely to be further exacerbated by climate change. Many major cities will face serious constraints in freshwater availability. All coastal cities and towns will be affected by sea-level rise<sup>104</sup> and resulting risks from storm surges in the short term; hundreds of millions of urban-dwellers live in low-elevation coastal zones that are, or will soon be, at risk. Most cities that already experience high temperatures will face more intense or long-lasting heat waves. All of these risks require local government responses, especially in reducing vulnerability for the poorest.

<sup>102</sup> Bicknell et al (2009).

<sup>103</sup> Douglas et al (2007).

<sup>104</sup> McGranahan et al (2007).

Both disaster risk reduction and climate change adaptation depend on local governments, as so many necessary risk-reduction measures fall within their responsibilities and jurisdictions. While it can be hard for local governments to pay attention to climate change in the face of so many other pressing issues, local governments that invest in improving infrastructure and services or supporting upgrading of informal settlements can integrate disaster risk reduction and resilience to the impacts of climate change into their plans. Many local governments in Latin America have demonstrated a remarkable capacity to reduce disaster risks – often supported by national agencies and new legislation.<sup>105</sup> Some local governments have also demonstrated a capacity to integrate disaster risk reduction and climate change adaptation into city planning and governance.<sup>106</sup>

Though cities in Europe are less affected by the most severe consequences of extreme weather, they also need to build their resilience. There is also the urgent need for global reductions in greenhouse gas emissions. Many local governments in North America and Europe, as well as some in other regions, have made commitments to reduce greenhouse gas emissions within their boundaries and are implementing initiatives to do so, but the scale and the scope of these commitments needs to expand greatly.

## 9.8 THE MILLENNIUM DEVELOPMENT GOALS, BASIC SERVICES AND LOCAL GOVERNMENTS

While the only MDG target that directly deals with basic services is target 7.C on access to “safe drinking water” and “basic sanita-

tion”, the achievement of many other goals – the reduction of poverty, hunger and disease, the promotion of gender equality and improved maternal and child health, ensuring sustainable development – implies improvements to basic services. The target of improving the lives of slum-dwellers can also only be achieved by extending access to basic services to informal settlements. Only two basic services covered in this report – solid waste management and transport – were not mentioned in the MDGs.

The MDGs have been helpful in drawing attention to basic needs and rights, but weaker in addressing the issue of responsibility for implementation. While national governments made the MDG commitments (with little or no consultation with sub-national governments), local governments are responsible for achieving many of the goals in practice. A major question in achieving the MDGs by 2015 – and for the Post-2015 Agenda – is whether global processes that are still largely dominated by national governments and international agencies can adapt to give sufficient attention to sub-national governments and their three critical roles:

- as implementers, financiers and managers of the basic services that are essential to meeting many development goals;
- as the focal point for democratic engagement with citizens and civil society on understanding and jointly addressing needs and ensuring accountability; and
- in monitoring and reporting on progress at local level so that local discrepancies in meeting targets are revealed.

Discussions about ‘localizing’ the MDGs refer to the national level, not local contexts.<sup>107</sup> When ‘good governance’ is mentioned, it refers to national government activities, rather than the vital relationships between citizens and their local

<sup>105</sup> IFRC (2010).

<sup>106</sup> Roberts (2008); Roberts (2010).

<sup>107</sup> “We learned from the MDGs that global targets are only effectively executed when they are locally-owned – embedded in national plans as national targets.” United Nations High-Level Panel (2013) p. 21.



administrations. When progress is measured, national data sets are used, relying on aggregate data, and failing to reveal who is left out and where they live. The report of the UN System Task Team on the Post-2015 Development Agenda pointed out that the MDGs suffered from “*rigid national policy agendas, following international benchmarks, rather than local conditions.*”<sup>108</sup> The understandable desire for simple, easily communicated universal goals obscures the complexity of the development process and the diversity of contexts. A sharper focus is needed on the vital roles and responsibilities of sub-national governments and the support they need to fulfil them.

A ‘localized’ perspective is all the more important given the different challenges of rural and urban areas. The world has already achieved the MDG goal of halving the proportion of people without ‘sustainable access to safe drinking water.’ But, as shown in this report, the indicator for ‘improved’ provision does not guarantee adequate provision in urban areas. However, despite the limitations of the MDGs, there is now growing international recognition of the importance of sub-national governments in ensuring the universal provision of basic services, and in providing more accountable and transparent governance for citizens and civil society.

### Sub-national governments and the Post-2015 Agenda<sup>109</sup>

At the September 2010 MDG Summit, UN Member States began to consider the Post-2015 Development Agenda. This process includes: deliberations of the High Level Panel set up to advise the UN Secretary General; discussions emerging from the UN Rio + 20 Summit; climate change negotiations; dialogues on financing for development (following the Monterrey Consensus); the Beijing Agenda; and the Habitat III Agenda.

The issue of local basic services continues to cut across the debates on poverty reduction; “*measures to improve the access of poor and excluded people to quality basic services, have produced gains in many countries*”, states the report of the Secretary-General.” The High Level Panel report recognizes lack of access as a manifestation of poverty, and has kept water and sanitation front and centre with a stand-alone goal of universal access to both services. It affirms that “*everyone should have access to modern infrastructure – drinking water, sanitation, roads, transport and information and communications technologies (ICT).*” It also recognizes, as does the UN task team, that the management of solid waste is a serious challenge in cities. The Post-2015 report of the UN Regional Commission also highlights the importance of basic services to development. All of the themes under consideration in the UN Open Working Group, which works on the follow-up to Rio+20, are directly or indirectly related to basic services: water and sanitation; health and population dynamics; infrastructure development and industrialization; energy; sustainable cities, human settlements, transport, consumption and production; social equity, gender equality and women’s empowerment.

As GOLD III demonstrates, basic services are best where empowered local governments have the authority, resources, and capacity to fulfil their responsibilities in delivery. Many local governments have been pioneers in inclusive development. Where substantive progress is being made on the MDGs, it often thanks to local governments. Accountability and transparency mechanisms, allowing residents to hold local governments to account, are critical, especially for residents for whom global development goals are not yet a reality. It makes sense, therefore, for the setting, implementation and measurement of global goals and targets to be decentralized.

<sup>108</sup> United Nations Task Team (2012) p. 47.

<sup>109</sup> This section draws from a number of reports and documents: UN Task Team (2012); Report of the Secretary-General (26 July 2013); United Nations Regional Commission (2013); HLP (2013).

Local governments which have much of the responsibility for meeting international goals should have an influence in setting priorities, greater resources and capacities to meet them, and a role in monitoring their achievement at local level.

The United Nations Task Team report urges flexibility in implementing goals in local contexts, stressing that there are “no blue-prints” and that space is needed “for experimentation and adaptation to local settings”. The United Nations Regional Commission report notes non-income related disparities in the achievement of goals at local level and argues that experience has shown the added value of approaches involving local governments. The High Level Panel report, in particular, explicitly recognizes local governments as vital and positive stakeholders in development, pointing to their “critical role in setting priorities, executing plans, monitoring results and engaging with local firms and communities.” This report argues that “local authorities form a vital bridge between national governments, communities and citizens and will have a critical role in a new global partnership.”

### ▪ **Urban poverty beyond 2015**

The reports of both the Secretary-General and the HLP acknowledge the transformative power of urbanization, and the challenges it brings. The HLP report affirms that “cities are where the battle for sustainable development will be won or lost”, and implies that the ability of local governments to tackle urban poverty is crucial. The HLP report recognizes the scope and scale, and growing importance of city government responsibilities, arguing that “good local governance, management and planning are the keys to making sure that migration to cities does not replace one form of poverty by another.” Commendably, the HLP report also points out that “the most pressing issue is not urban versus rural, but **how to foster a**

**local, geographic approach to the Post-2015 Agenda.** The Panel believes this can be done by disaggregating data by place, and giving local authorities a bigger role in setting priorities, executing plans, monitoring results and engaging with local firms and communities.” It suggests that one way to support local governments “is by recognizing that targets might be set differently at the sub-national level—so that urban poverty is not treated the same as rural poverty, for example.”

### ▪ **Local development... but how?**

While the HLP Report notes the essential roles of local governments, it does not mention decentralization or specify *how* local governments can contribute. Here, as in many other sets of global recommendations, there is no recognition that local governments should be included in defining and making commitments. Scant attention is paid to the unique challenges that both rural and urban governments face in making poverty-reduction a reality. Goals can be universal but targets and indicators need to recognise both the differences and the interdependence between rural and urban contexts and the need for social and territorial cohesion.

Even more worryingly, while the Panel recommends an international conference to take up the issue of finance for sustainable development, it makes no mention of improving the financing of sub-national governments. Local governments will not be able to fulfil their potential to contribute to the development agenda, if they lack adequate resources.

### ▪ **Good governance: a newcomer in the Post-2015 Agenda**

Even more positively, the concept of good governance is finally coming to include local governance, including more integrated

territories and enhanced partnerships. The UN Solutions for Sustainable Development Network report recognizes that local government is an integral partner and stakeholder in good global governance,<sup>110</sup> and emphasizes the ‘enormous’ challenge of urban governance. The UN Task Team report recognizes that the *“tailoring of development targets to national and local circumstances is most effectively and legitimately done through participatory processes.”* As GOLD III demonstrates, local governments are often at the forefront of collaborating with other levels of government, civil society, and the private sector to provide innovative solutions to pressing citizen needs.

#### ▪ **Inequalities and basic services**

Although the High Level Panel report did not recommend goals relating to inequalities, this issue is seen as critical by many stakeholders. Many of the most dramatic inequalities are related to housing, living

conditions and access to basic services, which have knock-on effect on other inequalities, particularly gender inequalities. This connection led the **Global Task Force of Local and Regional Governments for Post-2015**<sup>111</sup> to include basic services as one of the main elements of its agenda.

The GOLD III Report has drawn attention to the basic services that are critical to both the achievement of MDGs and the Post-2015 Agenda. Without drinkable water, sanitation and waste management and a healthy environment, there will be no future. Without the basic infrastructure that is the foundation of prosperity, there will be no development.

Putting people first means making basic services a priority, and local governments are key partners in facing this global challenge. This firm belief and commitment forms the basis of the recommendations that follow.

<sup>110</sup> United Nations Solutions for Sustainable Development Network (2013) p. 3.

<sup>111</sup> Local and regional government organizations launched the Global Task Force of Local and Regional Governments at the UCLG World Council in Dakar in December 2012. It aims to build a joint strategy to contribute the perspective, knowledge, and interests of local and regional governments to international policy-making debates within the framework of Rio+20, the Post-2015 Agenda, and towards Habitat III.



# X. RECOMMENDATIONS

**For the achievement of the MDGs and to support the Rio+20 Agenda and the Post-2015 Agenda, a stronger partnership between national, regional and local governments, international organizations and civil society is needed to guarantee universal access to basic services as a cornerstone of global development.**

**‘Putting people first’ means putting basic local services first. This implies:**

- The recognition of the vital role of basic local services in guaranteeing human rights and dignity, driving economic development, and addressing social and economic inequalities, including gender inequalities;
- A political commitment to increase investment in basic services in order to address existing deficits in provision, increasing demand in urban areas, and the sustainability and resilience challenges posed by climate change and other threats;
- The development of new forms of production and consumption for the provision of sustainable basic services in a world whose population will grow to 9 billion within the next 30 years.

**Local and regional governments and their associations, with the support of other levels of government, should:**

**Take responsibility for ensuring universal access to basic services and, in pursuit of this goal, develop long-term strategic**

**plans for basic service infrastructure development:**

- Infrastructure plans should be developed alongside land use plans and support city development strategies;
- Planning should include long-term investment strategies that take account of the full economic and social cost of service provision;
- Priorities should include to building and maintaining capacities to reduce disaster risk and improving the resilience of basic services to natural disasters and climate change.

**Develop sustainable financial strategies that ensure access to quality basic services for all:**

- Define business models that guarantee the long-term financial viability of each service. Tariffs and public spending should aim to cover operating costs and, where possible, contribute to investment and service expansion. Particularly in lower-income countries, increases to current levels of public financing remain essential;
- Use mechanisms such as social tariffs, cross-subsidies and safety nets should be used to make basic services affordable to all members of society;
- Put in place accountable and transparent information systems on local budgets and the use and allocation of all funds for basic services should be put



in place to ensure that citizens can hold local governments and service providers to account;

- Take steps must be taken to improve local and regional governments' credit-worthiness, and that of public operators, to increase their borrowing capacity on the financing market.

### **Promote innovative multi-stakeholder and multi-level partnerships:**

- Initiate policy dialogue with key stakeholders (central governments, service operators, trade-unions, civil society) to draw up local charters defining levels and standards of services, roles and responsibilities, financing and management;
- Local governments should acknowledge the role played by small scale and informal operators in basic service provision, particularly in informal settlements, and assume responsibility for monitoring quality, harmonizing prices, and coordinating service delivery with official providers to avoid gaps in provision;
- The following principles should inform partnerships with other stakeholders in the delivery of services: (1) local governments remain ultimately responsible for services; (2) clear legal and regulatory frameworks; (3) and the aim is to harness the financing and expertise of partners to improve service access and quality; (4) accountability and transparency must be ensured.

### **Build in-house policy-making, management and oversight capacities:**

- Improve the efficiency and effectiveness of local and regional government departments and public providers by investing in human and technical resources and

implementing modern management systems and technologies;

- When basic service provision is entrusted to external partners, local governments should develop and maintain the internal capacity to monitor and provide oversight to ensure that access, quality and tariffs meet the needs of citizens;
- Improve local data on basic service access and quality with the aim of identifying local needs and priorities and of monitoring service delivery. Local data should be made public so users can hold providers to account;
- Make preventing and tackling corruption in basic services a priority and establish appropriate criminal penalties and whistle-blower protections.

### **Urban and metropolitan governments should:**

#### **Adopt measures to ensure inter-jurisdictional coordination:**

- Coordinate between metropolitan and neighbouring local governments to ensure that basic service infrastructure accompanies and guides urban growth;
- In the water sector, carry out coordination at the level of the river basin, facilitating local partnerships to act in the event of emergencies or disasters.

#### **Harness land management and land added value to develop service provision:**

- Consider using land management and taxes on land added value to leverage funds to finance urban development and basic services;
- Use GIS (Geographic Information Systems) and other satellite based tools in land market analysis to monitor land value of areas served by basic service infrastructure.

### **Encourage participatory strategic planning:**

- Engage all stakeholders in planning, including those living in slums and informal settlements. The needs of women should be taken into account at all stages of the planning process;
- Design facilities and transport systems to guarantee the mobility and security of people with disabilities and other special needs.

### **National governments and international institutions should:**

#### **Harness the enormous potential of local governments to provide basic services by applying the principle of subsidiarity:**

- Recognize the diverse ways that local governments globally have expanded and improved basic service provision, with examples of both success and failure;
- Provide clear legal frameworks for decentralization, defining the responsibilities of local governments in service provision and facilitating their relationships with other stakeholders;
- Accompany decentralization with capacity building policies to improve the ability of local governments to manage services and negotiate and work with external partners.

#### **Define and implement an effective multi-governance framework for basic service provision:**

- Improve vertical and horizontal coordination between and within local, regional and central governments to: address the challenges of basic service delivery that cross municipal or regional borders; promote collaboration, knowledge-sharing and resource efficiency; and to improve the implementation of national sectorial policies;

- Recognize local governments' freedom to choose, in consultation with communities, the models of service management and partnership that fit local needs and priorities;
- Provide frameworks for procurement and contracting, and the technical, professional supports to implement them, so local governments can hold partners to account;
- Give local governments a seat at the table in international negotiations that affect basic service provision or impose constraints (e.g. trade agreements, employment laws, development goals, service standards, procurement rules).

#### **Equip local governments with the financial resources to improve basic service provision:**

- Local governments need financial powers and autonomy to generate local revenues, set service tariffs, target subsidies at the poor, and experiment with innovative financing models;
- Guarantee that transfers to complement local government budgets are regular and predictable, set based on objective cost assessments and aim to equalize service disparities between regions;
- Establish or reinforce mechanisms like municipal development funds and municipal banks to leverage access to credit or capital markets and adapt them to the long-term horizons of infrastructure investments;
- Donors and multilateral financial institutions should target technical support and aid to sub-sovereign levels of government; international institutions should support consistent, long-term investment in basic services in order to provide concessional loan rates to local governments and explore ways to develop guarantees and reduce risks;

## RECOMMENDATIONS

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- Give local governments direct access to global financing mechanisms such as the Clean Development Mechanism and emissions trading schemes, and facilitate their use of such mechanisms.

### **National and local governments and international institutions should:**

- Promote decentralized cooperation between local governments and public-public partnerships between utility operators;
- Support international and regional training centres and programmes to strengthen capacities of local governments and service providers and improve provision.

### **Both national and local governments should:**

- Create an enabling environment for civil society participation;
- Institutional frameworks should specify the rights and responsibilities of civil society organizations and trade-unions in relation to basic services;
- Promote the informed involvement of civil society in basic service provision, and in the definition, monitoring and evaluation of public policies;
- Set up ombudsmen to trouble-shoot and mediate between citizens, service operators and local governments to resolve conflicts;
- Involve community organizations and civil society in the co-management of systems for monitoring public opinion about the quality and price of services.

### **Public and private sector service providers should:**

**Carry out their contracts in accordance with *International Guidelines on Decentralization and Access to Basic Services for All*, national and international legislation and instructions from public authorities:**

- Combine efficiency in service provision (to keep costs and environmental impacts as low as possible) with attention to the social impact of basic services;
- Submit to regular transparent auditing and develop mechanisms to ensure accountability and tackle corruption in public service delivery;
- Comply with local, national and international standards on working conditions, including ILO Conventions on fundamental rights and decent working conditions;
- Private providers should step up efforts to hire local workers, build their capacities and promote them to management positions.

### **Recognize their corporate social responsibility to the communities where they operate:**

- Invest in health, educational or social services to support local development;
- Participate in local planning, consultation, monitoring and capacity-building.

### **Civil society, trade unions and community organizations should:**

- Claim the right to participate in policy-making and the allocation of resources.

es for basic services. Encourage underrepresented groups, particularly women, in this regard;

- Hold local governments and service providers to account for inadequacies in quality, coverage or cost of basic services by developing their capacity to monitor services, express their views, make claims and register complaints;
- Share knowledge about service delivery with other stakeholders and coordinate

their initiatives with local governments to avoid overlaps or gaps in provision;

- Where informal organizations of workers work in partnership with local governments to provide services, efforts should be made to improve their working conditions and the quality of services.







# APPENDIX:

## Some remarks on the governance and financing of basic services<sup>1</sup>

Claude de Miras

The multi-level governance of basic urban services encompasses two distinct types of responsibility:

- The legal responsibility as the organizing authority of services, which is defined at national level.
- The operational responsibility of the prime contractor (or delegated organizing authority), which is exercised locally by the service provider in order to provide services in a given area for a given period of time.

The first type of responsibility is vested in a public sector body at a particular level of government. This is determined by the central government (or federated state government). The relationship between the organizing authority and central and local, deconcentrated and/or decentralized levels of government varies according to the national context.

The second, operational, responsibility refers to the public or private status of the service operator. Local authorities that have the responsibility for providing basic services transferred from the national government (or from states in federal countries) can contract public or private operators to ensure their delivery.

The multiple forms of governance are reflected in equally diverse funding methods. Through a description of these various issues, we will explore their interconnections.

### 1. Multi-level governance

The regional reports indicate that, in the context of different forms of decentralization across the world, multiple levels of government are involved in basic services. The structure and extent of this multi-level governance varies between countries and regions.

Over and above the legal status of the operator, a number of strategic factors may determine the implementation and performance of basic services:

- The dynamic of urbanization (rapidly growing conurbations, urban sprawl, limited property regulatory powers and urban social fragmentation), especially in developing and emerging countries;
- Imperfect efficiency of multi-level and multi-stakeholder and multi-project governance;
- Varying national approaches to the concepts of *public service* and *political will*;
- The capacity of the organizing authority to monitor and oversee the local operator, be it public or private;
- Varying operator “business” and professional skills;
- Considerable and increasing urban infrastructure funding requirements;

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- National and regional financing and pre-financing strategies that are often inadequate in relation to the huge need for infrastructure financing.

All these inter-linked factors clearly demonstrate that the governance of basic services is not restricted to just the execution of technical, financial and commercial services within an operator's geographical area. Service provision and management conditions are embedded in a web of national, regional and local inter-institutional relationships.

For a better understanding of the dynamic of service provision, it is necessary to recognize that interactions between stakeholders are at the core of urban decision-making and public action, and that these impact on service provision by directly influencing its management and financing. Indeed, today, the importance of multi-stakeholder governance does not just lie in the fact that it broadens participation; it is also becoming a central matter in economic and financial development more widely.<sup>2</sup>

The financial and institutional framework of service provision generates visible and invisible operating costs and extra costs.<sup>3</sup> This framework has a marked influence on the economic, social and environmental efficiency of local public action, impacting on the growth rate and attractiveness of cities.

The following three issues form the context within which multi-level governance takes place, and have a reciprocal relationship with it:

- Urbanization, which generates operating and investment costs;<sup>4</sup>
- Inter-institutional transaction costs<sup>5</sup> due to the interaction between the stakeholders involved in the extension of basic services;

- Investment: the gap between long-term financial needs and short-term resource availability is increasing, necessitating extended financial intermediation (for financing and pre-financing) which is increasingly complicated and expensive.

It is this final dimension relating to governance that will be discussed in this article. The following two aspects of financing for network services are those which are analysed in greater detail in this article.

- Direct financing through taxes, tariffs and transfers (the OECD's "3Ts"<sup>6</sup>) will be examined, considering both their limits and potential, the greatest element of which is due to the elasticity of these structural resources.
- Pre-financing will be examined, on the one hand, in the form of loans granted by private and public, national and international banks and, on the other hand, in the form of funds provided through public and private partnership schemes. These bank loans and partnership contracts comprise refundable resource advances. These are financially innovative schemes with whose governance may prove to be increasingly difficult and expensive.

## 2. Financing and pre-financing

The financing of basic urban services generally takes place in a context marked by decreasing public investment and increasing urban infrastructure needs.

Structural adjustment policies explain the drop in public contributions to national investments. The IMF<sup>7</sup> finds that, since the 1980s, public investment in infrastructure has dropped in relation to GDP across the world.

At the same time, demographic and economic urban growth will lead to an explosion

<sup>2</sup> For example, OECD : [www.oecd.org/gov/water](http://www.oecd.org/gov/water) or the French ministry for European and Foreign Affairs and its French Partnership for Town and Territories: [www.pfvt.org/accueil/groupe\\_de\\_travail/groupe-travail-services-de-base](http://www.pfvt.org/accueil/groupe_de_travail/groupe-travail-services-de-base)

<sup>3</sup> However, on the contrary, an optimized multi-agent co-ordination could develop strong, positive external currents within the multi-institutional networks

<sup>4</sup> Different geographical water inlet points in cities and urban extensions; urban sprawl, territorial discontinuity

<sup>5</sup> These transaction costs specifically concern the quality of institutional and political multi-agent governance.

<sup>6</sup> OECD (2010), *Innovative Financing Mechanisms for the Water Sector*, Paris.

<sup>7</sup> Akitoby, Bernardin ; Hemming, Richard ; Schwartz, Gerd., (2007). *Public investment and public - private partnership*. IMF.

in investment needs, particularly in those countries where the rate of urbanization has evolved rapidly.<sup>8</sup>

In the period 1970-2030, the world population will increase fourfold and the urban population, fivefold. The requirements for urban infrastructure and network services (water, sanitation, energy, telecommunications, ports, airports, bridges, etc) have followed this urban growth, particularly in peri-urban areas. According to estimations made in the framework of the Millennium Development Goals, connecting the entire urban population to water and sanitation networks would require an annual investment of about USD 50 billion.<sup>9</sup>

Some of the many factors that have greatly contributed to the increase in short, medium and long-term financial needs, particularly in emerging and developing countries include: present and future infrastructure needs; making up for deficits in service provision; increasing access of the urban poor to basic services; moving from public fountains to piped drinking water within the home; the gradual spread of the multi service provision (drinking water, sanitation, solid waste management, transport, energy, and public lighting), and climate change mitigation. Financial requirements for extension and the maintenance of these networks were estimated as being three times the investments needed for developed countries.<sup>10</sup> Thierry Paulais, quoting World Bank data,<sup>11</sup> points out that in developed countries the proportion of GDP spent on basic urban services is 5.5%, while it is 7% in middle income countries. The very same World Bank report specifies that developing countries would need US\$900 billion annually to meet their needs.<sup>12</sup>

The annual revenues that can be generated by structural resources such as the three Ts (taxes, tariffs and transfers) is inadequate in relation to the enormous scale of financing requirements.

## Network financing and 3T resources.

### ▪ 3T typology

The 3T typology proposed by the OECD<sup>13</sup> and completed by EUREAU<sup>14</sup> deals with the main, available, long-term, structural resources.

1) User payments or “Tariffs” (revenues from service users)

a. Revenues of the operators from service provision (water and sanitation bills - taxes or charges) – revenues from service users;

b. Revenues of infrastructure owners (mainly public, relevant only if reinvested in the water sector).

2) National taxpayers contributions or “Taxes” (subsidies, grants, cash from domestic public budgets)

a. Subsidies to local or national water operators. Potential subsidies that can be harnessed include: tax rebates, tax holidays, soft loans (i.e. at a subsidized interest rate), transfers from local government housing taxes, donations and debt forgiveness, subsidized services (e.g. electricity) and prices, “dormant” equity investment, coverage of the operator’s financing gap;

b. Subsidies to infrastructure owners (including soft loans/concessionary conditions for investment).

3) Foreign taxpayer contributions, or “Transfers”: cash in aid from foreign sources

a. Official Development Assistance –ODA (e.g. subsidies from foreign sources, grants, and soft loans).

b. Budget support from foreign sources (e.g. debt relief)

c. Donations through NGOs, charities, and foundations

d. EU Subsidy Transfers

<sup>8</sup> For 50 years, the city population in poorer countries has been increasing faster than in richer countries (4.3% per year on an average in Africa, 1.2% in Europe). [www.ined.fr/fichier/t\\_publication/1300/pdf1435.pdf](http://www.ined.fr/fichier/t_publication/1300/pdf1435.pdf)

<sup>9</sup> [www.Financingwaterforall.org/Fileadmin/Wwc/Publicationsandreports/CamdessusReportfr.pdf](http://www.Financingwaterforall.org/Fileadmin/Wwc/Publicationsandreports/CamdessusReportfr.pdf)

<sup>10</sup> Dmitry Ivanov (2007). *Les différentes formes de partenariats public-privé et leur implantation en Russie*. Master en Administration Publique. Ecole Nationale d’Administration, p. 10

<sup>11</sup> World Bank (2005). *Infrastructure and the World Bank: A Progress Report*.

<sup>12</sup> World Bank Group (2008). *Sustainable infrastructure Action Plan*. 2009-2011. July 2008., page iii

<sup>13</sup> OECD (2009). *Water for all: OECD Perspectives on Tariffs and Financing*, Paris

<sup>14</sup> EUREAU (2011). *Methodological guide on Tariffs, Taxes and Transfers in the European Water Sector*. Dec. 2011. P. 12, 13 and 14

Another possible source of financing is privatization and the sale of assets to the private sector, a complete divestment of all or part of investments and assets to private sector entities. These de-nationalisations may take the form of complete privatization (Chile) or partial privatization (for example, the private subsidiaries of the Saigon Water Corporation SAWACO in Ho Chi Minh city/Vietnam). This kind of private financing does not belong to the category of public-private partnerships as the sale of public assets cannot be included in a contract or long-term specifications. Globally, these actions are rare.

A last possible “T” is ‘time’. This does not refer to a method of generating supplementary financing but to distributing available resources differently over time.

The 3Ts are an identification of available structural resources. However, this typology is not the same everywhere and depends on national contexts.

Data on the financing of basic service is available in OECD countries<sup>15</sup>. Developing countries, however, do not have equivalent statistics. The lowest-income countries tend to finance their basic service infrastructure through Official Development Assistance, while middle-income countries usually opt for tariffs and, to a lesser extent, public subsidies for specific initiatives (networks in rural areas, sewage treatment, etc.).

#### ■ The 3Ts and funding requirements

This refers both to resource distribution via the 3Ts as well as to the gap between actual available finances and the need for investment for the extension, improvement and renewal of networks.

On this point, emerging country agglomerations find themselves in a particular situation. While, in a given period, most countries cannot balance their operating and

investment costs with resources mobilized through the 3Ts, the gap between needs and financial capability is increasing everywhere.

“Very few countries cover the totality of economic and environmental costs just through water prices, Denmark being a notable exception (...). In most developing countries, investment in water and sanitation services is funded by subsidies and soft loans granted by the State or through Official Development Assistance. For example, the Senegalese water services provider claims to have achieved a financial balance since 2003. However, virtually all its investment expenses were financed by Official Development Assistance.”<sup>16</sup>

At this point, a brief methodological recap would be useful to measure the difference between requirements and financing capabilities.

The methodology for assessing financing requirements depends on the dynamics of urbanization and demographic and economic growth, spurred on by increasing life expectancy. A significant portion of urban populations now possesses the ability to pay for services.

In the development context, services users with the ability to pay may have access to two types of water service provision:

- a conventional type of service via a private or public operator that distributes (and sometimes also produces) drinking water (nationally or locally) and may or may not provide sewage collection and storm water evacuation;
- a non-conventional service provided by the informal sector (e.g. tankeros and water sellers).

Between conventional and non-conventional distribution, depending on the local or national context, there are also smaller

<sup>15</sup> OECD (2009), “Strategic Financial Planning for Water Supply and Sanitation”, internal document, [www.OECD.org.eau](http://www.OECD.org.eau)

<sup>16</sup> OECD (2010 a), p. 22.

private operators for production/distribution of drinking water who set up their own networks. In addition, urban water demand may also be met by non-commercial solutions such as domestic wells, rainwater, and rivers.

Conventional service provision provides drinking water, sewage collection and storm water evacuation to households, administrations and companies in a given area and for a long given period of time.

The geographical growth of local demand can be projected on the basis of urbanization documents like development and urbanization plans and blueprints established by authorities, based on the types of habitat and population density coefficients as well as consumption averages. This gives an idea as to the fluid volumes necessary, infrastructure requirements for distribution, corresponding collection and evacuation systems, as well as investment programmes for network extension, improvement and renewal. It provides a means of estimating changing needs in network financing.

In order to complete the business model service offerings, all that is required now is the definition of resources to be mobilized, to cover projected financial requirements.

Service provision may take different forms. These may be drawn up by a national public utility, municipal department or by a local public utility. It can also be outsourced in the form of a concession, an *affermage* or lease, or a partnership contract (like Build Operate Transfer), all of which fall under the general category of Public Private Partnerships.

However, this approach does not explain three major trends: an increasing outsourcing of project ownership, changes in financial engineering, and the increasing complexity of network service governance, which may impact on the total cost (including transaction and negotiation costs).

There are several examples indicating that operating and investment costs for water and sewage in medium-sized cities or developing metropolises, whatever the management system, are not covered by tariffs, public subsidies or even Official Development Assistance and international donations. However, this gap must be filled by striking the right balance between financial requirements and investment resources.

One possible solution would be to create financial requirements as an adjustment variable, and therefore to cancel, or simply postpone, certain investment expenditure. However, the social and environmental consequences would not be neutral. A more positive solution would involve the activation of one or several components of the 3Ts, but, as we have seen this does not provide much leeway, even if potential capacity exists. Or, the economic model could be changed: the 3Ts having become structurally inadequate in the short term, financial intermediation involving the postponement of the repayment of loans to future generations in various ways, could be set up. Future financing (the 3Ts) would cover current pre-financing.

### ■ 3T elasticity

This refers to trends for each of the 3T components:

#### *Tariffs*

Increasing tariffs is a sensitive issue for public authorities. They tend to practice extreme caution when determining the tariffs for drinking water, sewerage and electricity, as well as taxation levels on these services. They tend to be rather reticent when operators or international developers or financing institutions demand tariff increases.

The dogma of complete cost recovery has shown its limits and inefficiency in the development context: underprivileged segments of society can only afford subsidised



tariffs. At the same time, more affluent residents do not wish to shoulder the complete cost of services whose infrastructure is still to be completed; in addition to which, subsidies to deal with disparities between regions may also be necessary. In these circumstances, it would be wrong and even socially and economically risky to state that service users in any locality would be in the capacity to pay tariffs at the level of full cost recovery; e.g. building in operating and investment expenditure (extension, improvement and renewal) of drinking water, sewerage and storm water collection services. The principle of “water pays for water” was not a success in Europe in the 19th century, so how could this ideal become a reality today in demographic and spatially expanding agglomerations that have changing infrastructural needs?<sup>17</sup>

In 2003, John Winpenny and Michel Cambdessus<sup>18</sup> made major changes to the orthodox, economic concept according to which a balance could only be struck through a short cycle of cost recovery via tariffs. They proposed a “sustainable cost recovery” system based on an appropriate mix of tariffs, taxation and international aid. According to this concept, national and territorial taxation would provide a backup for infrastructure subsidies and give the most disadvantaged people access to services, while the public sector, like local governments, would recover their initial investment (or subsidies) in the long run (through taxation). In these circumstances, the optimum tariff would provide affordable services for all, including the most disadvantaged, as well as economically balanced service provision.

Tariff adjustment and equalisation is feasible, as in the case of transfers made between the first band of subsidised consumption and higher and surplus bands for certain customer categories (household and government offices, for example). Or,

multi-service providers can channel profits from electricity revenues towards less profitable services (drinking water, sanitation, storm water collection).

In any case, even if the prices remain more or less the same in constant terms, the inflation rate is necessarily included in the nominal price charged for water and sanitation services. Even more, what must be considered is not, in fact, the unit cost of each service but the total cost of access for the various basic services: drinking water, sanitation, electricity, and transport, before housing is even included. Even if these services are subsidised for the urban poor, the total cost borne by each household accessing services may still be too high for some.

Finally, it's quite possible that tariff flexibility compared with increases in financial requirements for network infrastructure, may be lower than 1 and perhaps even close to 0: the unit or total costs do not change as quickly as investment requirements.<sup>19</sup>

In this context, tariffs and other payments (to pre-finance infrastructures) are required of customers living on the outskirts of agglomerations. They are meant to cover connection costs, also known as ‘initial installation’ or ‘set up’ costs. Generally, this pre-financing is provided by land developers, and not by households. Later this land operator will make users pay for the service. In the case of concessions or affermage, the investment burden is borne by the public sector.

#### *Non-tax equalization*

Contribution by public organizations and public utilities with financial surpluses related to their profitable economic activities (e.g. mobile telephony, real estate, and export revenues). Mobilisation of these revenue streams would essentially depend on the economic strength of these public

<sup>17</sup> It should be noted that in the same context, the mobile phone expenses are spontaneously growing and that communications demands seems insatiable. Without developing the differential motivations of these consumers, but noting the glass ceiling encountered by the tariff changes in water and sanitation, could we consider establishing financial gateways from notoriously excess services to those structurally deficient?

<sup>18</sup> Report of the World Panel on Financing Water Infrastructure Chaired by Michel Cambdessus, Written by James Winpenny, Financing Water for All, World Water Council – Global Water Partnership, 2002.

<sup>19</sup> Conversely, the recovery of unpaid and reduce physical losses can improve the economic efficiency of the water distribution.

or semi-public enterprises, their economic weight in regional development and the authorities' political ability to mobilise them.

### *National and local tax revenues*

Regarding indirect taxes, these resources comprise specific taxation for certain goods (i.e. cement tax in Morocco), which may or may not be related to the water situation in the city. It also includes VAT, the rate of which may change. If the rate increases, the state's total tax contribution towards financing will decrease. Thus, when it comes to the state's tax contribution, it concerns the net contribution, which is the difference between the total tax payments and the total of public contributions in the form of exemptions, subsidies or donations in kind.<sup>20</sup>

Regarding direct taxes, these are contributions based on nominal tax rolls,<sup>21</sup> the tax base depending on personal income and assets. This financial source is generated prior to public expenditure and, in theory, may be mobilized to provide financing of network infrastructure. However, taxation of this kind is politically difficult. Some emerging countries do manage to do this, but only when certain political and economic conditions are met (powerful state, strong local government, and high growth). If not, the urban real estate capital serves first and foremost as a political adjustment tool in the hands of these states, and a means of precautionary savings for the urban middle class.

China opted for the mobilisation of this kind of local taxation. Indeed, producing, regulating and receiving some part of land revenues to be used as a foundation for urban infrastructure financing, is an innovative initiative of Chinese authorities in Shanghai. They deliberately started land speculation but, at the same time, shared the land revenues which were produced. These were shared between the state investor and developers; the smaller users holding rights

for urban land use having been evicted or indemnified.<sup>22</sup> Another experiment with land revenues being thus used is Hanoi, Vietnam.<sup>23</sup>

However, the difficulty lies in the conditions in which land and property gains are mobilised and which may provide a solution for the paradox described by Clement Musil (2013, p. 307): "If real estate capital gains exceed project costs (of urban infrastructure), why is it so difficult to find their required financing?"

More precisely, technical methodology could be applied to urban land revenues but given its obvious political dimension, it is a very sensitive and related to national policies issues. "States receiving international aid are often extremely cooperative when it comes to land Administration (for implementing Information Systems and registration), but are very fussy regarding any external intervention when it comes to land governance (that is, regarding modalities for use of land Administration tools)".<sup>24</sup>

Generally speaking, the flexibility of tax revenues for covering financing requirements is fairly limited, despite its considerable value, particularly in middle-income countries.

### ■ **Donations and international, national, private and charitable subsidies and Official Development Aid**

Donations and subsidies, and official development assistance are of varying importance depending on the level of national development. For the lowest-income countries, this reliance on donations and international subsidies as well as official development assistance, is essential for financing their network service infrastructures. The trend in emerging countries is of a decrease in the relative share of private and public subsidies, though for specific local operations oriented towards the most deprived, this kind of assistance is very

<sup>20</sup> For example, swapping plots of land with foreign prime contractors in return for carrying out construction or providing equipment (example of Laos or Vietnam).

<sup>21</sup> In tax laws, the "rolls" means a document that records the amounts to be collected and the names of taxpayers subject to the tax or taxes they owe

<sup>22</sup> Françoise GED (2000). *Collection Portrait de ville. Shanghai*. Institut Français d'Architecture. 64 pages

<sup>23</sup> Clément MUSIL (2013). *La Coopération urbaine et l'aide publique au développement à Hanoi : un appui à la fabrication de la ville par la structuration du réseau de transport métropolitain*. Thèse de Doctorat. Université Paris-Est. Avril 2013, p. 307

<sup>24</sup> Alain Durand-Lasserve (2008). Communication à l'ISTED. *Quelques problèmes soulevés par les interventions en coopération en matière de gouvernance urbaine*.

<sup>25</sup> [www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SC/pdf/WWDR3\\_Facts\\_and\\_Figures\\_FR.pdf](http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SC/pdf/WWDR3_Facts_and_Figures_FR.pdf)

<sup>26</sup> The Oudin law, France (February 2005) allows local authorities and Water Agencies to dedicate up to 1% of their budget annexed for water and sanitation services to international cooperation action ([www.environnement-online.com/presse/environnement/actualites/3743/solidarite](http://www.environnement-online.com/presse/environnement/actualites/3743/solidarite)). The funding provided by the GPOBA World Bank (Global Partnership for Output Bases Aid), established by the UK's Department for International Development (DFID) and launched as a World Bank in January 2003, plays an identical role, [www.gpoba.org/sites/gpoba.org/files/OBA%20Universe%20FR\\_screen.pdf](http://www.gpoba.org/sites/gpoba.org/files/OBA%20Universe%20FR_screen.pdf)

<sup>27</sup> In reality, two sides of the alternative are weighed.

<sup>28</sup> [www.statistiquesmondiales.com/gini\\_croissant.htm](http://www.statistiquesmondiales.com/gini_croissant.htm)

<sup>29</sup> With regard to emerging countries investments efforts: "Since 1995, China's GNI has almost tripled while overall annual municipal infrastructure spending, including roads, has increased six-fold." China is now investing 1% of GNI in water and sanitation. The four year programme for economic growth in Brazil invested USD 236 billion in infrastructure, including road, electricity, water, sanitation and housing. In India, investment in water and sanitation reach 0.7% of GNI and in all infrastructures has averaged 7.5% of GDP in the last period. see: D. Hall and E. Lobina (March 2012), Financing water and sanitation: public realities, PSI-PSIRU, [www.psiru.org](http://www.psiru.org)

necessary. Nationally and internationally, this type of financing may come from non-profit or private associations. When these non-refundable resources come from international entities, they may be foreign NGOs which are difficult to identify unless one goes into the details of project financing for network access.

Official Development Aid, by definition, is public in nature: "Official development assistance allocated by donating countries and multilateral donors to the water and sanitation provision sector increased in the 70s and 80s and then decreased during the 90s with less aid allocated to large-scale infrastructure projects, before it again increased in 2000".<sup>25</sup>

Other international initiatives have also contributed to leverage public funding for the water sector (e.g. through decentralized cooperation in France or by the GPOBA World Bank).<sup>26</sup> The potential growth of these free private and public resources remains reduced as, once again, their elasticity in relation to needs appears weak.

The elasticity of the 3Ts, and the appropriate relative use of each of them, enables long term stability determinate, if there is a strong social contract. An increase in financial resources is essential if the goal of increased access to urban basic services is to be reached. Restrictions on funding is a limiting factor on the extension of service provision, however this restriction is also present in an economic alternative.<sup>27</sup>

If the social contract gradually evolves in the direction of balanced redistribution (with a reduction of the Gini index<sup>28</sup>) new deposits of national resources will therefore be mobilised (direct, national and regional taxation; extended inter-sectoral equalization). For the achievement of the MDGs, some countries are providing this through national budgets (and, to a lesser extent, local budgets)<sup>29</sup>. Without evaluating this

potential, certain indices prove that there is a possibility to mobilize this local resource. A strategic debate on this issue is necessary.

If the mobilization of domestic resources is partially or completely inactive, the capacity will remain constant (the relative GDP value and public investment); the investment growth margin and its funding is therefore located on the financial intermediation in order to use long resources that, by definition, should be reimbursed. However, the mobilisation of various possible pre-funding resources would once again raise the question of their governance and their comparative costs, whether they be visible or not.

### ***Pre-funding: the forms and evolution of financial intermediation***

The methods of financial intermediation are wide-ranging and marked by overall tendencies of development paradigms – from the public sector to the market – and by the levels of countries' economic development. The lowest-income countries largely rely on international ODA, while emerging countries have limited access to concessionary and borrow under conditions close to those of the financial market.

Another trend increasingly shapes the methods of financial intermediation: the reduced role of the central government and the increase in decentralization. However, over and above the slow decentralization that, in many countries, remains largely 'centralized', this trend does not mean a complete transfer of project management responsibility to local authorities: if the legal framework confirms more or less the prerogatives and their responsibilities in terms of providing basic services, neither the level of transfers of resources from central governments, nor the effective, legal and institutional capacity of local governments to

borrow locally or internationally, and raise territorial taxes directly, allows for a sufficient operational implementation.

### ***Classic financial intermediation***

Classic forms of financial intermediation recover public investment funds (or Municipal Specialised Financial Institutions)<sup>30</sup> conceived to support the funding of infrastructure for local authorities. These resources were intended to allow local authorities to access loans. Their advantage lies in allowing central governments that are often highly involved in the management of these funding institutions, to keep control of the dynamic funding of municipalities. In 2005, these specialist funding institutions were present in over 50 countries.

Besides these institutions, the most common form of intermediation is the launching of targeted “projects”, linked to the extension or reinforcement of drinkable water, sanitation or rain water networks. In this case, the central government deals directly with the international development institutions (World Bank, European Bank of Investments, Asian Development Bank, African Development Bank, etc.) to access concessional loans and international grants to divert them back towards municipalities.

In both cases (IFS and “projects”), it is the support of the state that explains their sectoral performance in terms of funding urban infrastructure. In fact, central governments usually play a role in these projects and their national political will and their representatives at local level determine the strength and financial contributions made to these measures.

Central government's attempt to reduce their debt by transferring investment charges to regional and local authorities; however, these same central governments strongly limit the capacity of local governments to accumulate debt. Furthermore, central governments exert their political will in a

selective way in terms of funding urban development. Essentially, basic services have benefitted from these forms of public financial intermediation in a number of ways. Broadly speaking, public pre-financing investment has been focussed on housing, urban transport and electricity, with potable water and sanitation given less priority, and solid waste management the least funding of all sectors.

### ***“Innovative financing”***

One of the ways to provide additional resources is using the principles of “innovative financing.” They were defined in 2002 on the occasion of the Monterrey Conference<sup>31</sup> and will be extended in 2008 by the Monterrey Consensus<sup>32</sup> (Doha, November 2008).

The Monterrey Consensus established general conditions for sustainable economic, social and environmental development. Thus, before any mention and presentation of innovative financing, it is important to recall the significance of financial reforms, including tax, which are essential to strengthen macroeconomic policies and mobilize domestic public resources. Similarly, in the perspective of promoting a sovereign financing for development, it is recommended to increase the national supply of long-term capital and promote the development of domestic capital markets, including through multi-lateral, regional, sub-regional and national development banks. Identically, capital flight is considered a major obstacle for mobilizing the domestic resources needed for development.<sup>33</sup> Before turning to the presentation of innovative financing, let us recall the importance of Foreign Direct Investment as a means of financing for development, but also the importance of the growing role of transfers from migrant workers and international trade, as well as the contribution of Official Development Assistance.

<sup>30</sup> See T. Paulais (2006).

<sup>31</sup> Monterrey Consensus of the International Conference on Financing for Development. UN. 18-22 march 2002. [www.un.org/esa/ffd/monterrey/MonterreyConsensus.pdf](http://www.un.org/esa/ffd/monterrey/MonterreyConsensus.pdf)

<sup>32</sup> [www.un.org/french/documents/view\\_doc.asp?symbol=A/CONF.212/7](http://www.un.org/french/documents/view_doc.asp?symbol=A/CONF.212/7)

<sup>33</sup> Ibid, p.4-5.



<sup>34</sup> International facility to finance vaccination, solidarity taxes on airline tickets, which fund health programs in several developing countries, and market-based instruments for carbon emissions.

<sup>35</sup> Cited by: <http://www.jurispolis.com/dt/mat/ppp.htm>

<sup>36</sup> OECD (2008), *Public-Private Partnerships. Sharing risks and optimising resources*, p. 11

<sup>37</sup> Philippe Marin (2009). *Partenariats public-privé pour les services d'eau urbains. Bilan des expériences dans les pays en développement. (Public-Private Partnerships for Urban Water Utilities. A Review of Experiences in Developing Countries). Tendances et orientations (Trends and positions) n°8. World Bank PPIAF*. p. xi.

<sup>38</sup> "The notion of PPP, which has become a one-size-fits-all description, is often used to designate a public trend for the delegation of a public service (DPS). This is wrong. Strictly speaking, a PPP is a contract through which a public entity confides an overall mission including: the design, financing, construction, maintenance, upkeep and operation of works required for a public service. In return, the operator receives remuneration that covers at least the costs of the bank loan and that may vary depending on the nature of the services that it provides» *economie.jeuneafrique.com/tribune/414-tribune-btp-a-infrastructures/16806-les-partenariats-public-privé-lindispensable-clarification.html*

<sup>39</sup> Direct management, autonomous management, tailored management,

<sup>40</sup> Third party management, administration.

It should be noted that these innovative financing principles make no reference to MDGs and their need for financial resources, and they broadly and explicitly target public health objectives.<sup>34</sup> In this regard, we can note that in this founding document the word "health" is mentioned ten times, "basic services" once, in relation to energy, and "transport" three times, while "drinking water" and "sanitation" are never mentioned.

That is to say that these "innovative financing" principles, in the current circumstances, constitute potential extra resources to complete financial engineering and pre-financing of all basic services.

### **Public-Private Partnerships**

According to the World Bank,<sup>35</sup> PPPs aim to raise private (and public) funds in order to improve public services or the management of public sector assets. The OECD's definition is a little different, describing them as a "tool for optimising public expenditure (OPE)", and not necessarily as a new resource that has been previously neglected.<sup>36</sup>

Philippe Marin of the World Bank specified that, unlike Build Operate Transfer partnerships, the connection between "public-private-partnerships" and the quality of the service provision is: that PPPs shouldn't be a means to attract private finance to urban infrastructure, rather they should be an instrument to "improve the quality and effectiveness of services" A positive cyclical relationship between the quality of service, the growth of financial resources and an improved investment financing capacity could result from such collaborations.<sup>37</sup>

In general, there seems to be no clear, stable definition of PPPs, from either a financial, legal or for a contractual point of view. The wide diversity of PPPs requires further clarification.<sup>38</sup>

Management methods for local public services have evolved greatly over the past twenty years. The classic model distinguished between direct<sup>39</sup> intermediary<sup>40</sup> and delegated management.<sup>41</sup> The range of statutory mechanisms has expanded in relation of the introduction of increasingly varied forms of Public-Private Partnerships.

PPP are now defined according to the specific mechanisms and evolution of the responsiveness of the private sector in these partnerships and the requirements of the public contractor authority: from *French-style public service delegation*<sup>42</sup>, to the multiple variables of the *Private Finance Initiative*<sup>43</sup> (Great Britain, 1992) and *Partnership Agreements* (France, 2004) to the creativity of the urban engineering which, for example, has been developed in Asian or Latin American cities, which are innovative from both a financial and institutional perspective.

Delegation of Public Services (DPS) is historically the first model for a Public-Private Partnership. However, DPS must be distinguished from other PPPs such as France's partnership agreements or most English Private Finance Initiative contracts. The characteristics of DPS contracts are as follows:

- They confer the execution of a public service to a third party, be it a public or private entity;
- They guarantee the contracted entity that their remuneration will be substantially linked to operating results.<sup>44</sup>

As a result, the assignee assumes a significant share of the economic and financial risk.

The other types of PPP contracts (Partnership Agreements, most Private Finance Initiatives (PFI) and the entire range of Build Operate Transfer Agreements), stand somewhere between public tendered con-



tracts and DPS contracts. They establish a different distribution of the risks, which are assumed in greater proportion by the public sector. The private operator's remuneration is not linked to the operational results of the financed infrastructure, as it is now related to the hand-over of an installation and the contractually designed performance of public contracted authority. The private partner is remunerated through periodic payments of a fee from the public authority. They must cover all of the investment, operation and financing costs. It must also meet the requirements of short-term profitability for shareholders.

In countries influenced by British law, contracts are established under public or private law depending on the country; they take various forms deriving from BOT (Build, Operate, Transfer)<sup>45</sup> model: It is the most frequent format and that which is closest to a concession as it involved entrusting the contracted entity with equipping and operating the service; this equipment should be transferred to the contractor at the end of the contract."

If this affirmation can be accepted with regard to the role given to the private operator, acting in place of a public entity, PPPs, or partnership agreements, differ from DPS. The latter is characterised by its founding principles: the professional expertise of a specialist operator, long term commitment, the explicit reference to public service, a multi-service strategic function, endogenous financing mobilised through the operation. Partnership agreements, or "financers", have a more finance-orientated philosophy. To understand the dynamic of recent PPP mechanisms it is necessary to go beyond the field of basic services and carefully examine the financial markets, as these are the motor behind the recent evolution of PPPs.

Whatever the institution aiming to provide local services, it needs to mobilize resources

to finance network infrastructure. However, financial institutions' aim is to make a return on their investment.

Complex financial engineering explains the massive increase in liquidity since the end of the Asian crisis in 1997, and its evolution, which was completely based on the cycles of upward and then recessionary movement in the financial markets. Everything suggests that after 2008, the markets fell again following the subprime crisis.

The connection between the dynamic of PPPs and the financial markets was highlighted by James Leigland and Henry Russell.<sup>46</sup> The Asian financial crisis that began in July 1997 with the end of the Thai economic bubble was followed by a decline in private financing for infrastructure. It took 10 years for the level of Private Participation in Infrastructures (PPI) to overtake that of 1997. But, after the 2008 *subprime* crisis, another recessionary phase initiated. During the phases of economic growth, PPIs' growth was directly correctly to the increasing number of investment projects across the developed, emerging and developing world ("the international market for project financing progressed four to five fold, depending on the calculation method used").

The origin of this expansion of PPI projects is to be found in the growth of available liquidity. This situation is due to new banking practices that, through the securitisation mechanism, transform loans into credit by selling them on to investors. These securities are also subject to financial ratings from ratings agencies that evaluate the nature of the risk of the titles issued, in principle without investors having to possess precise financial information about these projects and PPI investors themselves.

Network service infrastructure projects can, therefore, provide investment opportunities for pension funds, but it is not clear that drinking water, sanitation, and storm water

<sup>41</sup> Concession, leasing, and a combination of both. For a detailed definition please consult: <http://sierm.eaurmc.fr/eau-potable/prix/modes-gestion.php>

<sup>42</sup> In fact, while the French-style DPS does fall under a "Public-Private" configuration, it is not within the bracket of financial intermediation as the financing is entirely supported by the pricing structure and a few public subsidies. The third party operator does not advance funds and assumes a large portion of the risk.

<sup>43</sup> *Set up by the British government in 1992, the PFI (Private Finance Initiative) covers a series of contracts ranging from management to straight privatization and from concession to a partnership agreement. The fundamental principal is that the private partner will become the creator and owner of an asset that they will henceforward manage in the public interest. PFI is used in most areas for which local authorities were traditionally responsible.* [www.actuenvironnement.com/ae/dictionnaire\\_environnement/definition/private\\_finance\\_initiative\\_pfi.php4](http://www.actuenvironnement.com/ae/dictionnaire_environnement/definition/private_finance_initiative_pfi.php4)

<sup>44</sup> [http://www.fondation-igd.org/upload/pdf/Publi/DF\\_modeemploi.pdf](http://www.fondation-igd.org/upload/pdf/Publi/DF_modeemploi.pdf)

<sup>45</sup> *B.O.O.T. (Build, Own, Operate, Transfer): used for large-scale operations. Confers a real right to the assets at stake for a long period and therefore allows the amortization of the investments agreed. B.O.O.S.T. (Build, Own, Operate, Subsidise, Transfer): A variation of BOT and BOOT, this includes a subsidy for the public entity, limiting the risk for the project company. D.B.F.O. (Design, Build,*

projects, given their slow profitability, will be of interest to such funds.

### Outcomes

Funding for basic urban services relies on more than finding available financial resources: given that the issues of risk and profitability (not only financial but also social and environmental) must be taken into account, the quality of governance in which service provision is embedded is becoming increasingly strategic for fundraising. Furthermore, trading costs, transaction costs and, more generally, the full cost of providing services, determine, not only the level of net financing available *ex post*, but also the preconditions for its mobilization. The financing costs and the quality of governance of the services offered are closely related.

Private funding under BOT does not satisfy all of the financing needs of urban services. First, these funds should not be in any way considered as additional resources available for financing network infrastructure. Unlike the Delegation of Public Services, these private flows are only pre-financing the project management that will have to be paid by adding a level of profit at least equal to the price of the service delivered. In addition, private contributors obviously raise profitability and safety conditions to

select the sectors and investment volumes. What will happen to non-profitable services like sanitation and transportation?

In terms of public health and time saved, the significant gains that can be generated by access to basic services are not enough to trigger sufficient proactive political will. In the face of high immediate investment costs, potential future earnings are not a priority. Collective positive externalities brought about by the spread of services are a weak basis on which to try to mobilize substantial financial resources.

Collaboration between local governments and citizens should be strengthened to give greater priority to access to basic services and the raising of the funds necessary to improve it.

Finally, it is ironic to note, on the one hand, the urgent need to mobilize new resources to finance basic services and, on the other hand, the lack of information and study of the issue of financial engineering in developing countries. If progress is slow in terms of the amount of financing mobilized, the monitoring of financial developments and corresponding policy responses – databases, benchmarks and financial accounts – are necessary to build a vision of the many positive initiatives and new operational responses that can be implemented in support of the construction of local and regional project management.

*Finance and Operate): similar to the MTEP (Public works contracts) in conferring an overall mission to the project company that will design the infrastructures that it will then operate (art. 3, L. n°2002-1094 of 29 August 2002 and art. 3, L. 2002-1138 of 9 September 2002).*

*B.O.O. (Build, Own, Operate): The contract holder retains the ownership of the work they built and operate".* <http://www.jurispolis.com/dt/mat/ppp.htm>

<sup>46</sup> J. Leigland and H. Russel (June 2009) "The Effects of the Financial Crisis on Financing Infrastructure Projects"; in: GRIDLINES Note n°48. <https://www.ppiarf.org/sites/ppiarf.org/files/publication/Gridlines-48-French.pdf>





# ANNEXES

## ANNEX CHAPTER II. AFRICA

### Annex: Summary of roles and responsibilities in the provision of basic services

|                                 | Electricity  | Water   | Transport  | Solid waste  | Sanitation  |
|---------------------------------|--|---|--|--|---|
| <b>Gabon</b>                    | National   | National utility  |  | LG subcontracts to private firms   |   |
| <b>Sao Tome + Principe</b>      | National utility   | National utility  | National   | Municipal  |   |
| <b>Congo</b>                    | National   | National utility  | LG   | LG   |   |
| <b>Cameroon</b>                 | National utility<br><br>City undertakes public lighting  | National utility<br><br>Distribution of water to the poor by private sector players<br><br>LG supplies drinking water   | Traffic and transport are a local competency<br>LG maintains main roads within jurisdiction<br>Cities collect parking tax<br>Public transport a national competency<br>Some cities have city bus services      | City subcontracts collection, removal and treatment to private firms. Funded by a subsidy from national government | Individual septic tanks – no central sewerage system                                  |
| <b>Equatorial Guinea</b>        | National   | National  | LG acts as an agent of national govt   |  |   |
| <b>DRC</b>                      | National   |   | LG manages public transport  | LG   |   |
| <b>Central African Republic</b> | National utility   | National water utility  | No subsidized public transport<br>City provides public transport infrastructure  | City collects solid waste<br>Ministry responsible for landfills  | City develops infrastructure for urban wastewater and public toilets                  |
| <b>Chad</b>                     | National utility   |   | National and regional roads under national ministry<br>Urban roads are the responsibility of local authorities   | Collection done by city  |   |
| <b>Seychelles</b>               | Public utilities corporation   | Public utilities corporation  | National corporation<br>Roads done by a division of national dept of transport   | National   | Public utilities corporation  |
| <b>Mauritius</b>                | National utility<br>Independent power producers<br>Supply by central agency  | Central water authority handles treatment and distribution of water   | Local roads (by municipal but not rural local authorities)<br>Road lighting<br>PT bus service provided by the national transport corporation   | Collection and disposal of waste   | Public sanitation<br>Wastewater management authority deals with public sewage systems |
| <b>Madagascar</b>               | State owned utility  |   | National agency responsible for land transport   |  |   |
| <b>Kenya</b>                    | Electricity supply a LG responsibility<br>At a national level Utility generates and a range of companies are responsible for transmission and supply | Some local governments where they have capacity<br>Water resource user associations responsible at local level<br>Most water service providers are local level utilities who pipe water | National gov has overall responsibility, local roads are the responsibility of local gov<br>LG oversees traffic and parking<br>Nairobi has a metro transport authority<br>Street lighting = LG<br>Parking = LG | Local government where they have capacity – including landfills  | Local gov   |



|                    | Electricity  | Water   | Transport  | Solid waste  | Sanitation   |
|--------------------|--|---|--|--|--|
| <b>Tanzania</b>    | National utility and Independent power producers   | District Urban Water and Sewerage Authorities (Corporation in Dar)<br><br>Private sector vendors  | Responsibility for managing district and urban roads rests in the President's Office Regional Administration and Local Government (PORALG) with the RF District and Urban Roads Monitoring and Coordination Unit<br><br>Dar looking at BRT projects.<br><br>Trunk and regional roads are the responsibility of Tan Roads | Local responsibility to collect, but many areas do not have the capacity to do so. Resort to uncontrolled dumping.<br><br>Dar has responsibility for landfill management.<br><br>Private sector undertake operations | District Urban Water and Sewerage Authorities for monitoring and private sector undertakes operations                              |
| <b>Uganda</b>      | Uganda Electricity Distribution Company Limited<br><br>Separate distribution and supply but also at a national level | Bulk water supply is central government, - National Water and Sewerage Corporation for water distribution and supply in many major urban centers.<br><br>LG is supposed to organize delivery of local services according to LG act.<br><br>City Administration complements by providing water in informal settlements.<br><br>Small towns have water authorities which contract out water services to private operators | Shared responsibility<br><br>LG does feeder roads<br><br>National roads agency assists local authorities who maintain local roads<br><br>Kampala city council are looking at providing city wide transport infrastructure  | LG , but often lack capacity to do it fully.<br><br>Private sector fills in  | National Water and Sewerage Corporation in many major urban centers, although a LG responsibility                                  |
| <b>Comoros</b>     | National parastatal  |   | Ministry of transport is responsible for PT  |  |  |
| <b>Rwanda</b>      | National utility   | LG overseen by a public utility<br><br>District responsibility  | Transport is a LG competency   | Only one official dumpsite in Kigali   | LG, but electricity utility is due to do this<br><br>District responsibility   |
| <b>Eritrea</b>     | National utility   | LG<br><br>National government does bulk water   | Decentralized recently to LG   | LG   | LG   |
| <b>Djibouti</b>    | National power utility   |   | PPP between National gov and private chamber of business oversee transport infrastructure  |  |  |
| <b>Burundi</b>     | Regional electricity utility   |   | PT a national competency under the minister  |  |  |
| <b>South Sudan</b> | Power supplied by Ethiopia power corporation   | Shared competency<br><br>Southern Sudan Water Corporation provides water in urban areas.<br><br>Under the new setup municipal councils are obliged to provide a water supply service  | Urban roads<br><br>No PT system  | LG competency  |  |
| <b>Sudan</b>       | National power utility   | Ministry of water<br><br>Khartoum has a water corporation which supplies water locally  |  | City collects (through private company)  | Primary pit latrines<br><br>Water services company subcontracted by government is looking at expanding the sewage system           |
| <b>Ethiopia</b>    | National utility   | Decentralised but many LGs cannot take on role due to capacity problems<br><br>Water points are a LG responsibility<br><br>Bulk water from regional bureaus   | Basic roads constructed by LG's<br><br>In Addis, the Anbessa bus service is run by national government but supported financially by local government.<br><br>All other roads done by the Ethiopian Roads Authority   | Collection by LG's in larger cities  | Decentralized but many LG cannot take on role due to capacity problems<br><br>On site sanitation mainly done by ministry of health |

|                     | Electricity  | Water   | Transport   | Solid waste   | Sanitation  |
|---------------------|--|---|---|---|---|
| <b>Somalia</b>      | National Utility primarily provides for Mogadishu<br><br>Ethiopian power utility provides to smaller towns                 |   | No PT. Only in Mogadishu does the city build local roads  | Done by City in Mogadishu   |   |
| <b>Libya</b>        | National   |   |   |   |   |
| <b>Tunisia</b>      | National   | National  | Organization, construction and maintenance of municipal roads<br><br>Traffic police<br><br>Transport is national  |   | LG  |
| <b>Algeria</b>      | National   |   |   |   |   |
| <b>Egypt</b>        | Local competency   | Local competency<br><br>Build and manage local water supplies   | Build and manage local roads - national government oversees - plans have to go through Minister of Tpt<br><br>Local traffic policing<br>PT Route planning done locally  | Local   | Local competency<br><br>Build and manage local sanitation |
| <b>Morocco</b>      | LG – supplies elec<br><br>And maintains pipeline network – management of which is delegated to a national company          | LG buys and supplies water  | Roads = LG<br><br>Urban public transport is LG  | Collection of waste   | Sanitation = LG   |
| <b>Mauritania</b>   | National   | National  | Shared national and local   | Shared national and local<br><br>Garbage removal  | Shared national and local                                 |
| <b>Namibia</b>      | Nampower generates and transmission of electricity but is withdrawing from direct provision – REDS do this – i.e. regional | Partially a local responsibility<br><br>Nationally done through govt dept<br><br>Namwater sells water to municipalities who deliver through piped networks  | Windhoek dept of transport plays a role in overseeing pt within the city<br><br>National roads authority administers roads. LAs are responsible for local roads<br><br>Most LGs don't render transport services   | Local collection  | Local   |
| <b>South Africa</b> | Local government   | Local government  | Municipal roads   | Refuse removal  | Storm water<br><br>Sewerage and sanitation                |
| <b>Botswana</b>     | Parastatal generates and supplies  | Village water supplies<br><br>Parastatal Water Utilities corporation supplies to towns and cities   | Tertiary and access roads   | Waste collection and disposal sites managed by LG – sometimes assisted by Ministry of Works | Water utilities corporation is taking over all wastewater |
| <b>Zimbabwe</b>     | National utility (ZESA) generates, transmits and distributes   | LG responsibility for water supply<br><br>Local catchment councils manage water affairs. However the national water authority has taken over water supply in many urban areas.<br><br>Bulk water provided by ZINWA – national water authority | LG responsibility to maintain roads within their areas<br><br>!! National roads authority in some cities maintain local roads.<br><br>LG collects fees from transport operators for road maintenance<br><br>National parastatal operates urban routes<br><br>National roads authority maintains roads | LG responsibility, however many LGs do not have ability to do it                            | LG responsibility<br><br>For sewer system                 |
| <b>Swaziland</b>    | National   | LG has competency but<br><br>Bulk water and piping in most towns through national corporation   | LG responsible for local roads<br><br>National resp for main, district and feeder roads   | LG  | National utility collects and conveys and treats          |

|                   | Electricity  | Water   | Transport  | Solid waste  | Sanitation   |
|-------------------|--|---|--|--|--|
| <b>Lesotho</b>    | Two national state owned entities  | LG's are the competent authority for village water supply<br><br>Water and sewerage authority (national) provides<br><br>Govt pays for capital costs and community maintain   | LG's are responsible for roads and traffic and minor roads<br><br>National Public bus service runs a bus service   |  | National govt through the Water and sewerage authority   |
| <b>Malawi</b>     | National public utility  | Local water boards in larger cities<br><br>Supply water kiosks  | Transport services in council jurisdictions<br><br>Roads authority has a SLA with many local authorities   | Local government collect waste   | Local water boards in larger cities  |
| <b>Zambia</b>     | National utility generates transmission and distribution                                     | Commercial utility owned by LG  | LG – roads, public transport – but no state sponsored pt<br><br>National roads board allocates financial resources to road agencies and assists LG. councils maintain roads  | LG responsible for the disposal of sewerage  | LG responsible, but many have formed regional commercial utilities to which they delegate the service          |
| <b>Angola</b>     | Two national utility companies – one produces and distributes and the other just distributes | Busy establishing provincial water and sanitation utility companies who will deliver water. Luanda distributes water and manages the local water system. In other areas provincial water directorate supplies water   | LG = urban and suburban transport systems; parking; traffic signals.<br><br>National govt is renovating roads in many cities   | LG has responsibility to collect waste<br><br>Subcontract to private company   | Sanitation services  |
| <b>Mozambique</b> | Publically owned company   | LG competency<br><br>Bulk water is a national competency<br><br>Water supply in largest cities are delegated to a private company – smaller cities manage their own water. Decentralization means that cities will do their own water supply and sanitation | Roads and transport are a LG competency<br><br>Transport is shared with province<br><br>National government company provides public transport buses in the Maputo area<br><br>National road administration builds roads  | LG competency to collect and manage solid waste<br><br>Solid waste not collected in many cities, where it is done it is billed and administered by the electricity company | LAs manage sanitation  |
| <b>Ghana</b>      | National competency  | Shared national and local competency<br><br>National utility  | LG competency to do transport and urban roads<br><br>LG supervise local public transport, traffic management, parking control<br><br>Department of urban roads under ministry of roads is responsible for the construction and maintenance of urban roads in Ghana – they tend to major works, while smaller works are done by the cities themselves | Shared national and local competency<br><br>Waste management is a municipal competency – in smaller towns it is done by the Dept Agriculture                               | Shared national and local competency<br><br>LG is responsible for sanitation and to enforce sanitation by laws |
| <b>Cape Verde</b> | Public utility responsible   | Public utility with municipal services managing the networks  | National ministry  | Municipal, including dumps   | Public utility with municipalities responsible for water drainage  |
| <b>Togo</b>       | National<br><br>LG is consulted by national on plans at a local level                        | Shared national and local<br><br>Consulted by national on plans at a local level<br><br>Construction of communal water standpipes<br><br>Distribute drinking water  | Shared national and local<br><br>Are consulted on national and regional and prefecture roads running through municipality<br><br>Responsible to build and maintain local roads<br><br>Traffic control<br><br>Public transport infrastructure   | Shared national and local<br><br>Implementation and planning of waste disposal and dump sites  | Shared national and local<br><br>Collection and treatment of sewerage  |

|                      | Electricity  | Water  | Transport   | Solid waste   | Sanitation  |
|----------------------|--|--|---|---|---|
| <b>Liberia</b>       | National utility   | National utility   | Monrovia provides public transport  | City responsibility but capacity limited  | National  |
| <b>Senegal</b>       | National   | Shared national and local  | Shared national and local   | Shared national and local   | Shared national and local   |
| <b>Nigeria</b>       | National utility   | Provision and Extension of urban water supply<br><br>Water piping shared between three levels – state governments do urban water, local governments do rural water | PT and local roads - LG<br><br>In Lagos PT is a federal intervention<br><br>Lagos state gov is organizing a new rail service  | State and LG – refuse collection and disposal.<br><br>LG handles and disposes and state generate funds through levies and fines | Basic sanitation, although responsibilities not clearly defined<br><br>Sanitation only exists in Abuja and Lagos  |
| <b>Benin</b>         | National competency  | Shared state and municipal function<br><br>Build local water infrastructure  | Shared state and municipal function<br><br>Construction and maintenance of local roads<br><br>Build and maintain transport infrastructure such as bus stops   | Shared state and municipal function   | Shared state and municipal function   |
| <b>Gambia</b>        | National utility   | National utility   | National PT utility   |   |   |
| <b>Côte d'Ivoire</b> | National, regional and local competency<br><br>Support to regional electrification programme<br><br>Implement local electricity plan | National, regional and local competency<br><br>Support to regional water supply<br><br>Develop and build municipal water plans                                     | National, regional and local competency<br><br>Issue transport permits<br><br>Road safety programme<br><br>Road signage<br><br>Local traffic regulation   | National, regional and local competency   | National, regional and local competency<br><br>Support to regional sanitation - implement regional sanitation plan<br><br>Implement local sanitation plan |
| <b>Mali</b>          | National competency  | Shared state and municipal function  | Shared state and municipal function<br><br>Public transport and traffic planning<br><br>Local roads – construction and management – where this competency is given to them by higher level of govt.   | Shared state and municipal function   | Shared state and municipal function   |
| <b>Guinea-Bissau</b> | National utility   | National and local   | PT = national ministry  | Confusion over responsibility   |   |
| <b>Sierra Leone</b>  | National power utility   | LG – must ensure access to safe drinking water and rural water supply  |   |   |   |
| <b>Guinea</b>        | National utility   | LG   | Larger cities have their own PT dept which deals with roads and PT  | LG  | LG  |
| <b>Burkina Faso</b>  | National competency<br><br>Provide input into national electricity plans<br><br>Public lighting                                      | Shared state and municipal function<br><br>Monitoring water quality<br><br>Provide input into national water plans<br><br>Distribution of drinking water           | Shared state and municipal function<br><br>Support for provincial transport<br><br>Construction and maintenance of rural roads<br><br>Traffic police<br><br>Build and maintain local roads and signage<br><br>Initiative and support for public transport and pt facilities | Shared state and municipal function<br><br>Removal and disposal of waste  | Shared state and municipal function<br><br>Enforcing sanitary regulations   |
| <b>Niger</b>         | National   | Shared national and local  | Local govt has some competency  | Shared national and local   | Shared national and local   |

Source: Authors' findings

## ANNEX CHAPTER III. ASIA PACIFIC

### Annex 3.1 Characteristics of Asia Pacific countries covered in the study

|                       | GDP Per Capita (PPP), USD | Total Population (1,000) | Urban Population (1,000) | Percent Urban | Average Rate of Increase of Urban Population (2010-2015) |
|-----------------------|---------------------------|--------------------------|--------------------------|---------------|--|
| <b>East Asia</b>      |                           |                          |                          |               |  |
| China                 | 7,554                     | 1,354,146                | 635,839                  | 47.0          | 2.29   |
| Japan                 | 33,566                    | 176,995                  | 84,875                   | 66.8          | 0.15   |
| Korea                 | 28,982                    | 48,501                   | 40,235                   | 83.0          | 0.61   |
| <b>South Asia</b>     |                           |                          |                          |               |  |
| Bangladesh            | 1,677                     | 164,425                  | 46,149                   | 28.1          | 3.13   |
| India                 | 3,535                     | 1,214,464                | 364,459                  | 30.0          | 2.38   |
| Nepal                 | 1,255                     | 29,853                   | 5,559                    | 18.6          | 4.65   |
| Pakistan              | 2,791                     | 184,753                  | 66,318                   | 35.9          | 3.10   |
| Sri Lanka             | 5,098                     | 20,410                   | 2,921                    | 14.3          | 1.06   |
| <b>Southeast Asia</b> |                           |                          |                          |               |  |
| Cambodia              | 2,159                     | 15,053                   | 3,027                    | 20.1          | 3.24   |
| Indonesia             | 4,411                     | 232,517                  | 102,960                  | 44.3          | 1.72   |
| Malaysia              | 15,800                    | 27,914                   | 20,146                   | 72.2          | 2.44   |
| Philippines           | 3,928                     | 93,617                   | 45,781                   | 48.9          | 2.26   |
| Thailand              | 8,749                     | 68,139                   | 23,142                   | 34.0          | 1.77   |
| Vietnam               | 3,193                     | 89,029                   | 27,046                   | 30.4          | 3.03   |
| <b>Pacific</b>        |                           |                          |                          |               |  |
| Australia             | 37,912                    | 21,512                   | 19,169                   | 89.1          | 1.17   |
| Fiji                  | 4,700                     | 847*                     | 440*                     | 51.9          | 1.7  |
| New Zealand           | 29,352                    | 4,467                    | 3,751                    | 86.2          | 0.92   |

Sources: For per capita GDP (PPP method) – ADB (2011) p. 162; for population data, UN-HABITAT (2010), pp. 254-255. Population figures in 1,000s.

### Annex 3.2 Local governments in Asia Pacific countries by levels

| Country          | First Level  | Second Level  | Third Level  | Fourth Level   | Total   |
|------------------|--|---|--|--|---------|
| <b>East Asia</b> |  |   |  |  |         |
| China            | 19,141 <i>zhen</i> (towns), 14,646 <i>xiang</i> (townships), 6,686 <i>jiedao-banshichu</i> (sub-districts); 1,098 <i>minzuxiang</i> (ethnic townships); 181 <i>sumus</i> ; 2 <i>qugongsuo</i> (district public offices); 1 <i>minzusumu</i> (ethnic <i>sumu</i> ); 623,669 <i>cunminweiyuanhui</i> (village committees); 80,717 <i>juminweiyuanhui</i> (neighbourhood committees). | 1,461 <i>xian</i> (counties), 855 <i>shiqiaqu</i> (districts); 367 <i>xian-jishi</i> (country level cities); 117 <i>zizhixian</i> (autonomous counties); 49 <i>qi</i> (banners); 3 <i>zizhiqi</i> (autonomous banners); 3 <i>tequ</i> (special districts); 1 <i>linqu</i> (forestry area) | 17 <i>diqu</i> (prefectures); 283 <i>dijishi</i> (prefecture level cities); 30 <i>zizhizhou</i> (autonomous prefectures); 3 <i>meng</i> (leagues). | 23 <i>sheng</i> (provinces); 5 <i>zizhiqu</i> (autonomous regions); 4 <i>zhixiashi</i> (municipalities)<br><br><b>Note:</b> the 2 <i>tebiexingzhengqu</i> (special administrative regions of Hong Kong and Macau) are classified as belonging to a fifth level of governance | 749,364 |
| Japan            | 184 villages; 754 towns  | 686 cities; 40 special cities; 41 core cities; 19 designated cities   | 47 prefectures; 1 metropolitan authority (Tokyo)   |  | 1,772   |



|                |   |  |   |                                      |         |
|----------------|---|--|---|--------------------------------------|---------|
| Korea          | 75 <i>si</i> (cities)   | 7 <i>gwangyuk-shi</i>  | 9 provincial governments  | 244                                  |         |
|                | 86 <i>gun</i> (councils)  | (metropolitan governments)   |   |                                      |         |
|                | 67 <i>gu</i> (districts)  |  |   |                                      |         |
| South Asia     |   |  |   |                                      |         |
| Bangladesh     | 4,501 <i>union parishad</i> (rural villages);   | 485 <i>upazilaparishad</i> (departments); 61 <i>zillaparishad</i> (districts)  | 10 city corporations  | 7 administrative divisions           | 5,411   |
|                | 316 urban <i>pourasabhas</i> (municipal councils)   | 3 <i>Hill District Local Government Parishad</i>   |   |                                      |         |
| India          | 239,432 <i>gram/villagepanchayats</i> (rural);  | 6,087 <i>panchayatsamiti</i> (rural); 543 <i>zillaparishads</i> (rural);   | 14 autonomous district councils (rural);                                | 28 states;                           | 249,953 |
|                | 2,108 <i>nagarpanchayats</i> (urban)  | 1,595 municipalities (urban)   | 139 municipal corporations (urban)                                      | 7 federally administered territories |         |
| Nepal          | 3,915 village development committees; 58 municipal development committees   | 75 district development committees   |   |                                      | 4,048   |
| Pakistan       | 6,125 union council administrations   | 500 <i>tehsil</i> or town administrations;   | 4 provinces   |                                      | 6,779   |
|                |   | 150 district governments   |   |                                      |         |
| Sri Lanka      | 256 village councils;   | 25 districts   | 8 provincial councils   |                                      | 344     |
|                | 37 urban councils;  |  |   |                                      |         |
|                | 18 municipal councils   |  |   |                                      |         |
| Southeast Asia |   |  |   |                                      |         |
| Cambodia       | 1,633 <i>khum</i> (communes in districts or <i>sroks</i> and <i>sangkat</i> ); (communes in <i>khans</i> and <i>krongs</i> or municipalities) | 9 <i>khans</i> (in capital city); 182 <i>srok</i> (districts) and <i>krongs</i> (municipalities) at provincial level | 23 <i>khaet</i> (provinces) and 1 <i>reach theany</i> (in capital city) |                                      | 1,849   |
| Indonesia      | 60,924 <i>desas</i> (rural villages);   | 6,694 sub-districts;   | 33 <i>propinsi</i> (provinces)  |                                      | 76,366  |
|                | 8,216 <i>kelurahan</i> (urban villages)   | 400 <i>kabupaten</i> (regencies); 98 municipalities  | 1 metropolitan government (Jakarta)                                     |                                      |         |
| Malaysia       | 99 district councils  | 38 municipal councils  | 12 city councils  |                                      | 149     |
| Philippines    | 41,899 <i>barangays</i> or villages;  | 143 chartered cities   | 81 provinces;   | 2 autonomous regions                 | 43,606  |
|                | 1,479 municipalities  |  | 2 metropolitan authorities  |                                      |         |
| Thailand       | 1,239 <i>tessaban</i> (municipalities);   |  | 75 <i>changwat</i> (provinces)  | 1 metropolitan authority (BMA)       | 8,061   |
|                | 6,744 <i>tambon</i> (sub-districts);  |  | 1 capital city (Bangkok)  |                                      |         |
|                | 1 city council (Pattaya)  |  |   |                                      |         |
| Vietnam        | 9,085 <i>xaor</i> rural communes;   | 548 <i>huyen</i> or rural districts; 47 <i>quanor</i> urban districts  | 58 provinces;   |                                      | 11,770  |
|                | 1,403 urban communes; 624 townships   |  | 5 <i>thanh pho</i> or cities under central government jurisdiction      |                                      |         |
| Oceania        |   |  |   |                                      |         |
| Australia      | 565 local government bodies   | 6 state and 2 mainland territories   | 10 island territories   |                                      | 573     |
| New Zealand    | 67 territorial authorities (cities and districts) and 11 regional councils  |  |   |                                      | 78      |

Sources: Individual papers for the UCLG-ASPAC project on Governance of Basic Public Services (2012). This table is an update of data from Asia Pacific countries covered in: UCLG (2010).

### Annex 3.3 Roles and responsibilities for providing basic local services in Asia Pacific

**CG** – Central Government

**PS** – Private Sector

**NGO** – Non-governmental organization

**M/R** – Metro or Regional Authority

**LG** – Local Government (city or municipality)

**CBO** – Community Based Organization

**S/P** – State or Province

**SPA** – Special Public Authority (parastatal)

| Country            | Water & Sewerage  | Sanitation  | Transport  | Energy  | Solid Waste Management   |
|--------------------|---|---|--|---|--|
| <b>Australia</b>   | CG (federal) sets policies and standards;<br>S/P delivers; M/R bodies manage; LGs provide logistical services                                 | CG sets policies and standards; LGs deliver; PS provides some services  | CG sets policies & standards; PS provides; LGs provide logistics   | CG sets policies & standards; S/P govts with PS financing & management operate National Electricity Market (NEM)                            | S/P mainly responsible; M/R bodies manage landfills; PS finances and manages   |
| <b>Bangladesh</b>  | CG sets policies & standards; M/R bodies provide water in big cities; LGs provide logistics; NGOs help with water distribution & conservation | CG sets policies & standards; LGs provide services; PS provide septic tank services; NGOs active in slums                   | CG sets policies; PS provides bulk of transport services; LGs coordinates traffic  | CG relies on SPA (parastatal) for energy generation and distribution; PS provides power in smaller LGs                                      | LG responsible for system; PS provides services; NGOs and CBOs play important roles in collection, recycling, composting                         |
| <b>Cambodia</b>    | SPA provides water in capital city; LGs responsible for water in others   | CG sets sanitation standards; LGs deliver services  | CG responsible for road building and maintenance; PS sector main provider of transport   | CG using state-owned company provides electricity; LGs provide logistical support   | PS main service provider; landfill site provided by LG; NGOs engaged in recovery and recycling   |
| <b>China</b>       | CG sets policies and standards; LGs provides service SPAs   | LG mainly responsible for service   | CG sets policies; M/R bodies manage transport in big cities; LGs control transport in smaller cities                                     | LG provides main service using SPAs   | LG provides main service; some large cities use M/R for landfill management  |
| <b>Fiji</b>        | CG has taken over service in capital city; LGs provide service in small cities and towns  | LGs set standards; PS services septic tanks   | PS main transport provider; LGs control traffic, bus depots, waiting sheds, parking  | CG provides electricity through special public authority  | LGs set standards; PS provides services; some NGOs contribute services   |
| <b>India</b>       | S/P sets policies; delivery usually through parastatals   | LGs mainly responsible; PS plays important role; NGOs provide service in urban poor communities                             | S/P and LGs set policies; PS main provider although in big cities, M/R parastatals provide services                                      | CG sets policies; S/P provides service through parastatals; PS also generates and distributes in small cities                               | CG sets standards; M/R bodies manage disposal in big cities; PS services households; NGO play big role in collection                             |
| <b>Indonesia</b>   | S/P and LGs provide water using SPAs locally known as PDAMS; PS plays important roles in metropolitan areas through PPP schemes               | CG sets policies but S/P and LG are mainly responsible; LGs use SPAs for actual service delivery; PS active in small cities | CG in charge of national road network; S/P manages vehicle licensing; PS is main provider, especially of paratransit; LGs manage traffic | CG uses SPA for generating and distributing electricity; Private sector involved in financing through PPP schemes; LGs play regularity role | CG sets policies; S/P and LGs have main responsibility; PS play strong role in disposal; NGOS & CBOs active in collection, recycling, composting |
| <b>Japan</b>       | LGs main supplier of water using SPAs   | LGs mainly responsible for sewerage systems   | LGs mainly responsible for transport; PS runs transport systems; CG provides financing in big rail-based systems                         | PS provides service; LGs have minimal role, except to ensure safety   | LGs mainly responsible for both collection and disposal  |
| <b>Korea</b>       | CG sets policies and standards; LGs provide services  | LGs mainly responsible  | CG sets standards; LGs regulate but PS plays a big role  | CG mainly responsible for generation using an SPA named KEPCO; PS starting to play bigger role through independent power suppliers          | CG sets policies and regulations; LGs carry out collection and disposal; PS involved in sorting, recycling and composting                        |
| <b>Malaysia</b>    | CG (federal) and S/P have joint responsibility exercised through a SPA; PS used to have a strong role but CG and S/P took over in 2005        | CG sets policies and regulations; PS manages sewerage through Indah Water Consortium  | CG sets policies and regulates; PS operates buses and other public transport; LGs regulate traffic and routes                            | S/P manages generation and distribution through SPAs; CG controls oil supply through a national SPA (Petronas) so exercises power           | CG has federalized authority over solid waste disposal; LGs in charge of collection  |
| <b>Nepal</b>       | CG sets policies but S/Ps (known as Districts) are responsible for water supply; in Kathmandu, an SPA manages both water and sewerage         | Same arrangement as water because Sanitation is part of water supply delivery system  | CG builds and maintains road network; PS plays big role especially in inner city transport and inter-local linkages                      | CG delivers electricity using a SPA (Nepal Electricity Authority); PS now engaged in sector through PPP schemes                             | LGs manage solid waste collection through local committees; NGOs and CBOs are actively involved in collection                                    |
| <b>New Zealand</b> | CG (federal) sets policies and standards; S/P manages water using SPAs  | S/Ps set policies and LGs manage services, often using local SPAs   | CG responsible for main roads; S/Ps set policies and monitor situation; LGs manage local traffic   | LGs responsible but PS enterprises now deliver electricity; S/P monitors to ensure compliance with standards                                | LGs deliver services but actual operations usually managed by PS enterprises   |

| Country            | Water & Sewerage  | Sanitation  | Transport   | Energy  | Solid Waste Management  |
|--------------------|---|---|---|---|---|
| <b>Pakistan</b>    | CG (federal) sets standards;<br>S/P delivers services; LGs use SPAs to manage services                                | S/Ps now charged with services delivery using SPAs ; LGs play minor role  | CG takes care of national roads; S/Ps responsible for local roads; PS actually delivers most services                     | CG sets policies and S/Ps monitor; delivery by SPAs; CG proposes stronger role for PS enterprises                               | S/P sets standards; LGs deliver; NGOs and CBOs augment public services  |
| <b>Philippines</b> | CG sets policies and standards; SPAs deliver water in big cities; PS delivers water in metro areas with PPP financing | CG sets policies and standards; SPAs deliver in big cities; LGs regulate in small cities; PS also provides services | CG sets policies; in charge of national roads; PS provides and other transport; SPAs run transport systems in metro areas | CG sets policies and standards; PS delivers in metro areas and big cities; PS enterprises provide electricity in smaller cities | CG sets standards; LGs deliver services using PS enterprises; NGOs and CBOs play important role in recycling and composting |
| <b>Sri Lanka</b>   | CG responsible for policies, finance and management through Water Board   | CG sets policies; LGs deliver services  | CG manages services; PS also provides transport vehicles  | CG manages system through an SPA; LGs help with regulations to ensure safety  | CG sets policies; LGs deliver; NGOs and CBOs assist   |
| <b>Thailand</b>    | CG sets policies & standards; Provinces deliver; In Bangkok, metro authority manages system                           | CG sets policies; LGs deliver services; PS also provides services in small cities                                   | CG sets policies & standards; in Metro Bangkok, SPA provides service; PS also provides buses and paratransit              | Provincial government supplies; in Bangkok, SPA provides power; PS supplies in local areas                                      | CG sets policies; LGs provide services; NGOs and CBOs support programme   |
| <b>Vietnam</b>     | LGs mainly responsible but must follow CG health standards  | LGs mainly responsible; PS delivers in small cities and towns   | PS mainly manages transport; LGs control traffic  | CG provides electricity through SPA; LGs authorized to power using PS or PPP schemes  | PS is main service provider; LGs manage landfill sites; NGOs active in recycling and composting                             |

### Annex 3.4 Local governments that participated in the UCLG-ASPAC survey. N=115

| Country, Local Government Unit | Type of Local Government Unit | Population Size |
|--------------------------------|-------------------------------|-----------------|
| <b>Australia (12)</b>          |                               |                 |
| Blacktown                      | City Council                  | 300,000         |
| Brisbane                       | City Council                  | 1,079,000       |
| Coffs Harbour                  | City Council                  | 75,000          |
| Cowra                          | City Council                  | 13,000          |
| Gosford                        | City Council                  | 168,000         |
| Hornsby                        | City Council                  | 162,000         |
| Joondalup                      | City Council                  | 167,000         |
| Marion                         | City Council                  | 77,500          |
| Mount Gambier                  | City Council                  | 25,000          |
| Penrith                        | City Council                  | 180,000         |
| Ryde                           | City Council                  | 105,000         |
| Shoalhaven                     | City Council                  | 96,000          |
| <b>Bangladesh (5)</b>          |                               |                 |
| Bogra                          | Municipality                  | 600,000         |
| Gazipur                        | Municipality                  | 1,300,000       |
| Kakonhat                       | Municipality                  | 18,515          |
| Nilphamari                     | Municipality                  | 73,000          |
| Singra                         | Municipality                  | 50,000          |
| <b>Cambodia (7)</b>            |                               |                 |
| Battambang                     | City                          | 145,229         |
| Kampong Cham                   | City                          | 44,609          |

| Country, Local Government Unit | Type of Local Government Unit      | Population Size |
|--------------------------------|------------------------------------|-----------------|
| Kampong Chhnang                | City                               | 40,198          |
| Kampot                         | City                               | 34,088          |
| Phnom Penh                     | Capital City                       | 1,501,725       |
| Stung Sen                      | City                               | 55,601          |
| Takhmao                        | City                               | 65,867          |
| <b>China (9)</b>               |                                    |                 |
| Changchun                      | Municipality                       | 3,500,000       |
| Changsha                       | City                               | 7,100,000       |
| Guangzhou                      | City under Provincial jurisdiction | 12,000,000      |
| Haikou                         | Municipality                       | 2,000,000       |
| Harbin                         | City                               | 10,630,000      |
| Jilin                          | City                               | 4,500,000       |
| Shenyang                       | City                               | 8,300,000       |
| Wuhan                          | City                               | 9,790,000       |
| Xi'an                          | Municipality                       | 8,400,000       |
| <b>India (10)</b>              |                                    |                 |
| Ahmedabad                      | Municipal corporation              | 5,568,685       |
| Bhopal                         | City                               | 1,795,000       |
| Faridabad                      | City                               | 1,055,938       |
| Gwalior                        | City                               | 1,053,000       |
| Indore                         | Municipal corporation              | 1,960,000       |

| Country, Local Government Unit | Type of Local Government Unit | Population Size |
|--------------------------------|-------------------------------|-----------------|
| Jabalpur                       | Municipal corporation         | 1,050,000       |
| Nagpur                         | Municipal corporation         | 2,350,000       |
| Rajkot                         | Municipal corporation         | 1,400,000       |
| Solapur                        | City                          | 1,000,000       |
| Ujjain                         | City                          | 515,000         |
| <b>Indonesia (9)</b>           |                               |                 |
| Balikpapan                     | City                          | 630,000         |
| Banda Aceh                     | City                          | 240,000         |
| Bandar Lampung                 | City                          | 891,374         |
| Medan                          | City                          | 2,033,156       |
| Payakumbuh                     | City                          | 129,055         |
| Probolinggo                    | City                          | 217,062         |
| Soring                         | City                          | 133,731         |
| Surabaya                       | City                          | 3,058,401       |
| Tarakan                        | City                          | 239,787         |
| <b>Japan (3)</b>               |                               |                 |
| Hamamatsu                      | City                          | 816,848         |
| Sapporo                        | City                          | 1,927,505       |
| Shizuoka                       | City                          | 721,967         |
| <b>Korea (6)</b>               |                               |                 |
| Busan                          | City                          | 3,556,000       |
| Changwon                       | City                          | 1,100,000       |
| Daegu                          | City                          | 2,600,000       |
| Jeju                           | City                          | 583,284         |
| Jeollabuk-do                   | City                          | 1,874,00        |
| Gunsan                         | City                          | 277,323         |
| <b>Nepal (9)</b>               |                               |                 |
| Banepa                         | Municipality                  | 19,900          |
| Bhaktapur                      | Municipality                  | 72,543          |
| Bhimeshwar                     | Municipality                  | 21,916          |
| Dulikhel                       | Municipality                  | 17,276          |
| Kirtipur                       | Municipality                  | 40,835          |
| MadhyapurThimi                 | Municipality                  | 62,000          |
| Ratnavagar                     | Municipality                  | 35,335          |
| Siddharta Nagar                | Municipality                  | 108,558         |
| Tansen                         | Municipality                  | 17,276          |
| <b>New Zealand (9)</b>         |                               |                 |
| Dunedin                        | City Council                  | 122,000         |
| Gisborne                       | District Council              | 45,000          |
| Hurunui                        | District Council              | 10,600          |
| Masterton                      | District Council              | 22,600          |
| Palmerston North               | City Council                  | 82,150          |
| South Wairarapa                | District Council              | 9,640           |
| Wairoa                         | District Council              | 9,000           |

| Country, Local Government Unit | Type of Local Government Unit | Population Size |
|--------------------------------|-------------------------------|-----------------|
| Wellington                     | City Council                  | 200,000         |
| Westland                       | District Council              | 8,500           |
| <b>Pakistan (6)</b>            |                               |                 |
| Abbotabad                      | City                          | 881,000         |
| Awaran                         | City                          | 206,000         |
| Kasur                          | City                          | 288,000         |
| Khanewal                       | City                          | 360,000         |
| Lodhran                        | City                          | 322,000         |
| Sukher                         | District Government           | 1,500,000       |
| <b>Philippines (8)</b>         |                               |                 |
| Calapan                        | Chartered City                | 116,976         |
| Dipolog                        | Chartered City                | 125,000         |
| Laoag                          | Chartered City                | 105,695         |
| Palayan                        | Chartered City                | 37,219          |
| San Fernando, La Union         | Chartered City                | 119,322         |
| San Pablo, Laguna              | Chartered City                | 234,000         |
| Vigan                          | Chartered City                | 50,123          |
| Zamboanga                      | Chartered City                | 807,129         |
| <b>Sri Lanka (6)</b>           |                               |                 |
| Anuradhapura                   | Municipal Council             | 120,000         |
| Colombo                        | City Council                  | 647,100         |
| Dambulla                       | Municipal Council             | 25,000          |
| Kandy                          | Municipal Council             | 150,000         |
| Kurunegala                     | Municipal Council             | 40,000          |
| Matale                         | Municipal Council             | 40,000          |
| <b>Thailand (8)</b>            |                               |                 |
| Chiangrai                      | Municipality                  | 70,000          |
| Muangklang                     | Municipality                  | 20,000          |
| Pakrret                        | Municipality                  | 180,000         |
| Phuket                         | Municipality                  | 72,265          |
| Songkla                        | Municipality                  | 69,325          |
| Udonthani                      | Municipality                  | 135,903         |
| Wiangfang                      | Municipality                  | 7,600           |
| Yala                           | Municipality                  | 62,000          |
| <b>Vietnam (8)</b>             |                               |                 |
| Bien Hoa                       | City                          | 836,000         |
| Ha Tinh                        | City                          | 92,894          |
| Hai Duong                      | City                          | 218,500         |
| Nam Dinh                       | City                          | 272,722         |
| NinhBinh                       | City                          | 350,000         |
| SocTrang                       | City                          | 137,553         |
| Son Tay                        | Town                          | 181,831         |
| Vinh                           | City                          | 307,975         |

## ANNEX CHAPTER V. EUROPE

### Annex 5. The main contributions of the Lisbon Treaty and the SGI

Article 4 TEU clearly states that “The Union shall respect the equality of Member States before the Treaties as well as their national identities, inherent in their fundamental structures, political and constitutional, inclusive of regional and local self-government”.

Similarly, the “principle of subsidiarity”, which has been integrated by the Maastricht Treaty as basis of the European Union in 1992, is re-affirmed and developed by Article 5 TEU and in the Protocol N° 2, which set up in particular a control of national parliaments: “Under the principle of subsidiarity, in areas which do not fall within its exclusive competence, the Union shall act only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional and local level, but can rather, by reason of the scale or effects of the proposed action, be better achieved at Union level. The institutions of the Union shall apply the principle of subsidiarity as laid down in the Protocol on the application of the principles of subsidiarity and proportionality. National Parliaments ensure compliance with the principle of subsidiarity in accordance with the procedure set out in that Protocol. » (Article 5, paragraph 3 TEU).

Article 14 of the Treaty on the Functioning of the European Union sets out explicitly the legal base of a secondary law, under the co-decision procedure of the Council and European Parliament. It refers twice to the rights and powers of Member States and their communities’ competences and powers (reference to Article 4 TEU). As “provisions having general application”, it must apply in all EU policies, including of the internal market and competition.

#### Article 14 TFEU

Without prejudice to Article 4 of the Treaty on European Union or to Articles 93, 106 and 107 of this Treaty, and given the place occupied by services of general economic interest in the shared values of the Union as well as their role in promoting social and territorial cohesion, the Union and the Member States, each within their respective powers and within the scope of application of the Treaties, shall take care that such services operate on the basis of principles and conditions, particularly economic and financial conditions, which enable them to fulfil their missions. The European Parliament and the Council, acting by means of regulations in accordance with the ordinary legislative procedure, shall establish these principles and set these conditions without prejudice to the competence of Member States, in compliance with the Treaties, to provide, to commission and to fund such services.

The Lisbon Treaty gives legal value to the Charter of Fundamental Rights. Article 6 TEU provides that “The Union recognises the rights, freedoms and principles set out in the Charter of Fundamental Rights of the European Union of 7 December 2000, as adapted at Strasbourg, on 12 December 2007, which shall have the same legal value as the Treaties” (*Except for Poland and the United Kingdom*).

#### Article 36 of the Charter of Fundamental Rights

The Union recognises and respects access to services of general economic interest as provided for in national laws and practices, in accordance with the Treaties, in order to promote the social and territorial cohesion of the Union.

The Protocol on services of general interest (n° 26) is annexed to the treaties (TEU and TFEU) and has the same legal values as the treaties themselves, as it is an integral part of them. It identifies “shared values of the EU” in respect of SGEI.

#### Protocol n°26 on Services of General Interest

THE HIGH CONTRACTING PARTIES,

WISHING to emphasise the importance of services of general interest,

HAVE AGREED UPON the following interpretative provisions, which shall be annexed to the Treaty on European Union and to the Treaty on the Functioning of the European Union:

##### Article 1

The shared values of the Union in respect of services of general economic interest within the meaning of Article 14 of the Treaty on the Functioning of the European Union include in particular:

- the essential role and the wide discretion of national, regional and local authorities in providing, commissioning and organising services of general economic interest as closely as possible to the needs of the users;
- the diversity between various services of general economic interest and the differences in the needs and preferences of users that may result from different geographical, social or cultural situations;
- a high level of quality, safety and affordability, equal treatment and the promotion of universal access and of user rights.

##### Article 2

The provisions of the Treaties do not affect in any way the competence of Member States to provide, commission and organise non-economic services of general interest.



## ANNEX CHAPTER VI. LATIN AMERICA

### Annex 6. Responsibilities in the management of local basic services in Latin America

**CG:** Central Government  
**MG:** Metropolitan Governments  
**NGO:** Non Governmental Organizations

**RG:** States, Regional or Provincial Governments  
**PS:** Private sector  
**CBO:** Community Based Organization

**LG:** Local Governments  
**PU:** Public Utility

| COUNTRY            | WATER AND SANITATION (W & S)   | MUNICIPAL SOLID WASTE (MSW)   | URBAN PUBLIC TRANSPORT (UPT)  | LOCAL PUBLIC SECURITY (LPS)   |
|--------------------|--|---|---|---|
| <b>ARGENTINA</b>   | PS, either companies themselves or concessions from RG and MG; PU at regional and local level; LG with smaller oversight and operation roles.  | PS, mainly concessions from LG. Tariffs, oversight and investment from public resources of CG, LG and RG.   | Integrated transport systems defined by LG or MG. PU in MG and some LG. Roads and monitoring by LG. PS as concession operators.   | Provincial Federal Police and in MG; prevention and action programmes by LG with CBO and NGO.   |
| <b>BOLIVIA</b>     | PU of CG, RG OR LG. National laws and investment programmes from RG and LG. LG involved in tariffs, operation and oversight. Also NGOs in some cities.   | LG utilities and institutions. Inter-municipal cooperation with sanitary landfills. Oversight from CG of municipal operation.   | Municipal utilities or institutions with an important role for PS in form of micro-companies coordinated by LG or RG. Oversight and rules from CG.                              | Coordination between police and LG. Community policing programmes in partnership with CBO.  |
| <b>BRAZIL</b>      | PU and PS mandated by LG, RG or MG; LG oversight role and co-financing role with PU; LG associations cooperate in water treatment.   | LG or RG (and MG) in PU or PS concessions; recycling and reuse of MSW with CBO and NGO, with guiding role for LG.   | State or municipal PU; complementary role of PS (feeders); coordination and oversight from LG; tariff-setting and subsidies from RG.  | RG police and specialized PU; urban prevention and action programmes by RG and LG, sometimes with CBO and NGO; growing commitment from LG.  |
| <b>CHILE</b>       | PS since 2000 (before, PU); oversight by CG; LG identify population needing subsidies; CBO involved in autonomous local water systems.   | PS or under concessions from LG; CG define rules and regulations; tariffs and subsidies established by LG.  | PU, Metro and Transantiago Bus system with PS; regulations and tariffs by CG; road maintenance by RG and LG.  | CG Police: <i>Carabineros de Chile</i> (armed guard); local prevention and urban policing programmes (LG with CBO); LG and police coordination.   |
| <b>COLOMBIA</b>    | PU of LG and RG; lesser participation by PS through concessions; essential LG role in financing, tariffs and subsidies. Growing inter-municipal coordination with RG or CG.                                      | PU of LG and RG; concessions to PS; waste reuse and recycling programmes; action of LG with NGO and CBO, and inter-municipal cooperation for sanitary landfill.         | CG and MG delegate to PU or PS by means of concessions; integrated public transport systems in Bogota and major cities. PS as concession operators.                             | National and state police; prevention and urban policing programmes by LG and MG; LGs provide incentives to community programmes.   |
| <b>COSTA RICA</b>  | Central PU regulated by CG. LG role in oversight and LG and CBO also operate autonomous rural systems.   | LG utilities or concessions to PS under municipal supervision. Oversight and regulation from CG and regional sanitary landfill. Progress in recycling with NGO and CBO. | Integrated urban transport systems, with significant role of PS in form of small companies. Tariffs and rules set by CG and MG.   | Multiple police forces (14) and priority to community security and neighbourhood policing. Local security committees with LG and CBO.   |
| <b>ECUADOR</b>     | Central, regional or municipal PU and role for PS through concessions. Public financing and subsidized urban and rural tariffs.  | LG utilities or municipal delegation to PS by means of concessions; inter-municipal sanitary landfill programmes. CG supervision.                                       | Municipal utilities or concessions to PS. Investment and oversight by CG. Key role for PS micro-enterprises.  | National, local and metropolitan police forces. Citizen security programmes with growing roles for LG and CBO.  |
| <b>EL SALVADOR</b> | Centralized CG body with role in management, oversight, tariffs and operation. Collaboration by LG, PU particularly in autonomous rural systems. Relevant example of inter-municipal collaboration in Montañosa. | LG jurisdiction with direct services and concessions to PS. Financing by tariffs and budget allocations from CG. Central sanitation oversight.                          | CG regulations for a complex system of 1100 routes (900 buses and 250 Microbuses). New public transport system under development (NSTP). Municipal role in roads and oversight. | CG and MG set rules and carry out oversight. National police, specialized PU and role for Armed Forces in anti-drug and delinquency activity. LG role in prevention and urban policing. |
| <b>GUATEMALA</b>   | CG regulation, investment and programmes. Also local government utilities. Growing role of PS (concessions). Rural programmes with CBO.  | Most management by LG with sanitation regulations from CG. Inter-municipal sanitary landfills and autonomous rural systems.   | Basic management by PS, with co-owners (cooperatives) linked to LG. Regulation and support in financing by CG.  | National forces in cooperation with LG. Local action in prevention and the restoration of public spaces.  |

| COUNTRY            | WATER AND SANITATION<br>(W & S)  | MUNICIPAL SOLID WASTE<br>(MSW)   | URBAN PUBLIC<br>TRANSPORT (UPT)   | LOCAL PUBLIC SECURITY<br>(LPS)   |
|--------------------|--|--|---|--|
| HONDURAS           | CG in planning and rules. LG is the service owner and manages it directly, water boards and PS, through concessions.   | Direct responsibility of LG, with direct or contracted role for PS. CG coordinates, sets rules, and provides oversight.  | CG authorizes urban, inter-municipal and rural service provision. LG have responsibility for road management, bus stops and stations.                                 | CG police forces that charge a security fee. LG role in prevention, urban regeneration and citizen security with CBO.  |
| PANAMA             | CG via the <i>Instituto and Acueductos y Alcantarillado</i> (IDAN). Health laws via CG. water boards in rural areas.   | CG via the <i>Autoridad Nacional de Aseo</i> (ANA), PU especially in Panamá City. LG responsible in the rest of the country.   | CG via the <i>Autoridad de Tránsito and Transporte Terrestre</i> (ATTT). Concession mechanism to PS in urban and inter-urban transport.                               | National Police force linked to CG. LG responsible for the area of local security (Judges from Administrative Police).   |
| PARAGUAY           | Central role of CG in management, oversight, and tariffs. Growing role of RG (at state level) and RG and LG in autonomous rural systems.                         | 66% Direct municipal operators and 30% concessions to PS. National regulations set by the <i>Secretaría del Ambiente</i> (SEAM). Inter-municipal treatment plants.     | Key role for CG, and RG (at state level) in regulation, oversight and tariffs.  | CG and coordination with National Police. Border programmes. LG role in high risk areas. Municipal police training in Asunción.  |
| MEXICO             | PU especially in RG and MG, PS via concessions from LG and RG. Financing, subsidies and oversight by RG and MG. Inter-municipal work, especially in rural areas. | National rules and regulations. Most management by LG, with coordination from RG and inter-municipal sanitary landfills. Increasing role in recycling for NGO and CBO. | Urban and metropolitan public transport systems in hands of RG and MG. Operation by PS with concessions from LG. Role of RG and LG in road maintenance and oversight. | Complex system of national, state, metropolitan and municipal police forces. Prevention programme with CBO and NGO growing role of LG.   |
| PERU               | Coexistence of PU (national and regional) and PS in concession systems. LG provide oversight and subsidies. Local autonomous systems in rural areas.             | Completely local responsibility, exercised directly or via concessions to PS. Provincial bodies undertake MSW treatment and collection.                                | Diverse roles for CG, RG, MG and LG. Important growth of small companies and informal sector.   | National police is responsible. Example of LG role with CBO in "serenazgo".  |
| DOMINICAN REPUBLIC | PU (national and regional) and growing incorporation of PS via concessions. Autonomous rural systems with a role for LG and CBO.                                 | Utilities and/or local services (LG) in collection and incorporation of PS in treatment. Sanitary landfill at inter-municipal level. MSW recycling by LG, CBO and NGO. | Systems of multiple private operators (micro-companies and bikes). Progress in metropolitan authority in Santo Domingo.   | Complex management under police and LG. Examples of CBO and NGO community work. Action focused in marginalized, high risk areas.   |
| URUGUAY            | CG institution with significant role for MG. Regulation, tariffs and oversight by CG. LG with active role the regions in the interior of the country.            | LG responsibility (recent third municipal level), in coordination with RG (at state level) in treatment of MSW. Examples of MG and CBO role in recycling.              | CG and MG responsibilities. (Montevideo city hall). PU and concessions to PS. CG role in tariffs, regulation and oversight.   | National and specialized police forces. MG active in prevention, urban regeneration, and at-risk populations. (with CBO and NGO)   |
| VENEZUELA          | Management role for CG and RG. Important role for LG in rural areas with autonomous systems.   | CG and RG bodies with role in regulations, planning, and oversight. Operator role for LG with significant support from RG (state).                                     | Municipal responsibility for loans from PS (businesses and cooperatives). In Maracaibo and Caracas there are specialized municipal transport agencies.                | National and specialized police forces. Commitments from CG, RG and LG in prevention and urban investment. Complex relationship between LG, Police and CBO in tackling delinquency, drugs and organized crime. |

## ANNEX CHAPTER VII. MIDDLE EAST AND WEST ASIA

### Annex 7.1 Overview of governance legislation, jurisdictions and political appointments in MEWA

|              | Main Governance Laws  | Governing Districts   | Governing structures and appointments/ elections   |
|--------------|---|---|--|
| IRAN         | The Law on the Organization, Functions and Elections of Islamic Councils and Mayors (1999)  | -Central government<br>-30 provinces<br>-Counties<br>-Districts<br>-Villages  | -Appointed governors general manage provinces<br>-City and village councils elected<br>-Ministry of Interior works with city and local councils to appoint mayors  |
| IRAQ         | 1) Constitution of Iraq of 2005 – defines Kurdish region autonomy<br>2) <b>Law 21 of 2008 – the Law of Governorates Not Incorporated into a Region</b> (for administering all areas but Kurdish Regional Government – KRG; status of Kirkuk still unresolved) | -Central government<br>-18 governorates (incl. 3 in semi-autonomous KRG)<br>-District ( <i>Qada</i> )<br>-Sub-district ( <i>Nihaya</i> )  | -Elected municipal councils, chaired by executive officer appointed by central government<br>-Ministry of Municipalities and Public Works<br>-Governorate councils are elected by the public; governorate councils then choose governor<br>-25% central government gender parity quota; no governorate or local quotas |
| JORDAN       | 1) By-law of the Ministry of Municipal Affairs no. 27 with Revisions<br>2) The Law of Municipalities no. 29 1955 and revisions<br>3) The regulatory law of the cities, villages, and buildings no 29 of 1960 and subsequent revisions                         | -Central government<br>-12 governorates<br>-Districts<br>-Sub-districts<br>-94 Municipalities below governorates; classified in four categories based on population (except for Greater Amman Municipality)   | -Governors are appointed by the minister of the interior<br>-Mayors and municipal councils are elected<br>-Half of Greater Amman Municipality's council and the council president are appointed by the cabinet<br>-Municipal councils must have 20% female representation  |
| LEBANON      | 1) Decree-Law 118 30/6/1977 and its Amendments: <b>Municipal Act</b> : "every work having a public character or utility within the area of a municipality falls under the jurisdiction of the municipal council"  | -Central government<br>-6 <i>Mohafazat</i> (districts)<br>-26 <i>Qadas</i> (sub-districts)<br>-945 Municipalities   | -Governor <i>Mohafez</i><br>-District governor <i>Kaemakam</i><br>-Municipal council members elected; council members elect a president and vice-president   |
| PALESTINE    | 1997 Law on Local Governance  | -Governorates ( <i>muhafazat</i> )<br>-Municipal councils<br>-Village councils<br>-"A" category land (17.7%): governed by PNA<br>-"B" category land (18.3%): PNA controls civilian affairs; Israel controls security<br>-"C" category land (64%): Israel retains civil and security authority | -Palestinian National Authority is central government<br>-Governors are appointed by the Ministry of the Interior<br>-Both councils are elected<br>-20% quota for women on municipal councils  |
| SAUDI ARABIA |   | -Central government<br>-13 regions, within which are:<br>-Governorates<br>-Districts<br>-City authorities<br>-Municipalities  | -Head of the regional council (emir) is appointed by the king with rank of minister<br>-Municipal mayors are appointed<br>-Half of municipal council members are elected; other half are appointed by the king<br>-Women will be able to run for municipal office in 2015 elections                                    |
| SYRIA        | National Law on Local Administration 2011   | -Central government<br>-14 provinces (governorates/ <i>muhafazat</i> )<br>-60 districts<br>-Counties (sub-districts)<br>-Towns/villages   | -Each province is headed by Ministry of Interior-appointed governor<br>-Governorate, district, sub-district, and municipal councils are elected<br>-These councils elect their executive   |

|               | Main Governance Laws  | Governing Districts   | Governing structures and appointments/<br>elections   |
|---------------|---|---|---|
| <b>TURKEY</b> | 1) Law No. 5393 "Municipal Law" of 2005<br>2) Law No. 5302: "Law on Special Provincial Administration"<br>3) Law No. 442: "Village Law"<br>4) Law No. 5216 "Law on Metropolitan Municipalities" | -Central administration<br>-81 Provincial administrations<br>-16 Metropolitan Municipalities (divided into metropolitan municipal administration and district municipalities)<br>-2950 Municipalities | -Councils and council executives at almost all levels are elected<br>-Provincial administration executive authorities (governors) are appointed by central administration |
| <b>YEMEN</b>  | -Local Authority Law 2000   | -Central government<br>-20 Governorates<br>-City of Sana'a<br>-333 Districts  | -Governorate and district council chairs are elected by district and governorate councils,<br>-District and governorate councils are elected by the public                |

## Annex 7.2 Summary of private sector participation in infrastructure

| Featured Indicators<br>1990-2011                                | Afghanistan        | Iran               | Iraq                             | Jordan   | Lebanon   | Syria                 | Turkey   | Palestine                                    | Yemen                                  | Total<br>(reporting<br>countries) |
|---|--------------------|--------------------|----------------------------------|--|---|-----------------------|--|--|--|-----------------------------------|
| Sectors reported  | Energy,<br>telecom | Energy,<br>telecom | Energy,<br>telecom,<br>transport | Energy,<br>telecom,<br>transport,<br>water and<br>sewerage | Telecom,<br>transport,<br>water and<br>sewerage | Telecom,<br>transport | Energy,<br>telecom,<br>transport,<br>water and<br>sewerage | Energy,<br>telecom,<br>water and<br>sewerage | Energy,<br>tele-<br>com,<br>Transport, |                                   |
| Projects reaching financial closure                             | 6                  | 9                  | 8                                | 17   | 8   | 4                     | 118  | 6  | 10                                     | 186                               |
| Projects cancelled or distressed                                | 0                  | 0                  | 0                                | 1  | 3   | 0                     | 1  | 1  | 1                                      | 7                                 |
| Total number of projects in energy                              | 1                  | 4                  | 3                                | 4  | Not reported (NR)                               | (NR)                  | 94   | 1  | 2                                      | 109                               |
| Total investment in projects in energy (US million)             | 2                  | 808                | 1,070                            | 989  | (NR)  | (NR)                  | 32,761   | 150  | 16                                     | 35,796                            |
| Total number of projects in telecom                             | 5                  | 5                  | 4                                | 5  | 5   | 2                     | 4  | 3  | 6                                      | 39                                |
| Total investment in projects in telecom (US million)            | 1582               | 3,229              | 6,347                            | 2,917  | 674   | 1,031                 | 33,637   | 1,245  | 1,218                                  | 51,880                            |
| Total number of projects in transport                           | (NR)               | (NR)               | 1                                | 4  | 2   | 2                     | 18   | (NR)   | 2                                      | 29                                |
| Total investment in projects in transport (US million)          | (NR)               | (NR)               | 500                              | 1,562  | 153   | 82                    | 9,858  | (NR)   | 410                                    | 12,565                            |
| Total number of projects in water and sewerage                  | (NR)               | (NR)               | (NR)                             | 4  | 1   | (NR)                  | 2  | 2  | (NR)                                   | 9                                 |
| Total investment in projects in water and sewerage (US million) | (NR)               | (NR)               | (NR)                             | 1,120  | 0   | (NR)                  | 942  | 0  | (NR)                                   | 2,062                             |
| <b>Total investment</b>   | <b>1,583</b>       | <b>40,038</b>      | <b>7,917</b>                     | <b>6,588</b>   | <b>827</b>                                      | <b>1,113</b>          | <b>77,198</b>  | <b>1,395</b>                                 | <b>1,644</b>                           | <b>138,303</b>                    |
| Number of Concessions   | 0                  | 0                  | 1                                | 3  | 0   | 1                     | 28   | 0  | 2                                      | 35                                |
| Number of Divestitures  | 0                  | 2                  | 0                                | 3  | 0   | 0                     | 3  | 0  | 1                                      | 9                                 |
| Number of Greenfields   | 6                  | 7                  | 7                                | 8  | 3   | 2                     | 78   | 4  | 6                                      | 121                               |
| Number of Management and Lease contracts                        | 0                  | 0                  | 0                                | 3  | 5   | 1                     | 9  | 2  | 1                                      | 21                                |

Source: World Bank and PPIAF, PPI Project Database. (<http://ppi.worldbank.org>) Date: 05/09/2013







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