

Metropolitan Areas Thematic chapter



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Metropolis members

Africa Abidjan Accra Addis Ababa Alexandria Antananarivo Bamako Bangui

Brazzaville Cairo Casablanca Cotonou Dakar Douala Durban Gauteng Harare Johannesburg Libreville Marrakech Niamey Nouakchott Rabat Tunis Victoria

Asia

Yaoundé

Ahvaz Amman Baghdad Bangkok Beijing Beyrouth Bhopal Bogor Busan Changchun Changsha Chengdu Chongqing Colombo Daegu Daejeon Dalian Diyarbakir East Kalimantan Faisalabad Fuzhou Gaziantep Goyang Guangzhou Gujranwala Gwangju Gyeonggi Haikou Hangzhou Hanoi Harbin Hyderabad Incheon lefahan Istanbul Jakarta Jilin Jinan Kaohsiung Karaj Kathmandu Kuala Lumpur Kunming Lahore Male' Mashhad Nanjing Nanning New Delhi - NIUA New Taipei

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Latin America and the Caribbean

Belo Horizonte Bogotá Brasília **Buenos Aires** Córdoba Guarulhos Guayaquil La Habana La Paz Medellín Minas Gerais Montevideo Porto Alegre Ouito Rio de Janeiro Rosario San Salvador Santiago de Chile São Paulo Valle de Aburrá

North America

Atlanta Ciudad de México Guadalajara Monterrey Montréal Puebla Tijuana Toronto

Source: www.metropolis.org (August 2019).

1. Introduction

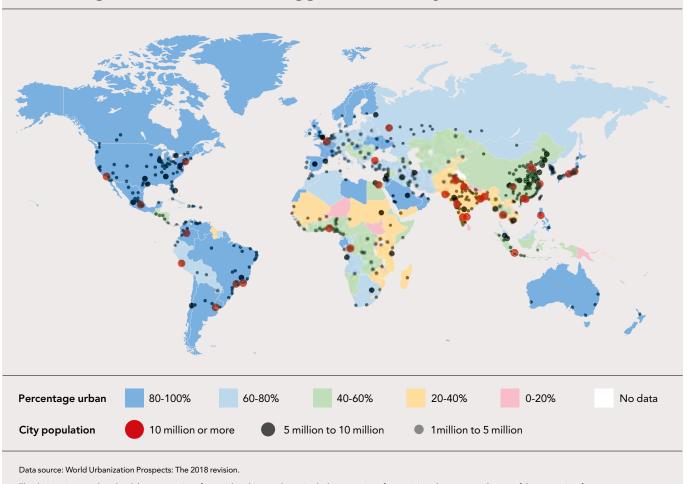
The accelerated expansion of metropolitan regions is an increasingly visible phenomenon in the 21st century. According to United Nations (UN) data the urban population of the world has grown rapidly, increasing from 751 million in 1950 to 4.2 billion in 2018. More than 1.8 billon people live in cities with more than 1 million inhabitants (43% of the urban population and 24% of the total world population), while 556 million (13% of the urban population) live in 33 megacities with more than 10 million inhabitants. Tokyo is the world's largest city with an agglomeration of 37 million inhabitants, followed by Delhi with 29 million, Shanghai with 26 million, and Mexico City and São Paulo each with around 22 million inhabitants. Cairo, Mumbai, Beijing and Dhaka all have close to 20 million inhabitants. By 2030, the world is projected to have 43 megacities, most of them in developing regions.¹

Metropolitan areas, as defined in the GOLD IV Report, are urban agglomerations with more than one million inhabitants, including the physical contiguous urban area and the pattern of its labour market. However, different types of metropolitan areas co-exist in the global system of cities, from globalized 'established' metropolises hosting the densest concentrations of firms, capital and educated labour (e.g. Hong Kong, London, New York, Paris and Tokyo), through extended metropolitan areas of low and middle low-income countries dominated by slums and informal economies (e.g. Dhaka, Kinshasa, Lagos), with a group of 'emerging' world cities of large fast-growing economies (such as Istanbul, Mexico City, São Paulo and Shanghai) in between,

to metropolises of emerging countries with more pronounced social and economic contrasts (e.g. Cairo, Delhi, Johannesburg, Manila).

Globally, metropolitan cities are seen as places of innovation, wealth generation, culture and opportunity, accounting for 60% of the world's GDP.² They are home to government bodies, leading companies, universities, research and cultural centres and key civil society organisations (CSOs), as well as a large proportion of talent and creativity, technological innovation, interconnectedness and artistic output worldwide. However, the quality of life in many metropolitan areas is increasingly threatened by congestion, pollution, social and gender inequalities and violence amongst other socio-economic and environmental problems. Metropolitan cities often have fragmented urban landscapes ranging from wealthy to marginalized (or even ghettoized) neighbourhoods, with core

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Percentage of urban and urban agglomerations by size class (2018)

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and peripheral areas. The growth of metropolitan areas has given rise to peripheral development spaces on the outskirts — called suburbs which become peripheral to the urban economy, main infrastructures or institutional processes. In developing countries, rapid urbanization has often seen the rise of extended informal settlements in these peripheries, home to hundreds of thousands of people with limited or no access to basic services who are often more exposed to natural disasters. It is worth remembering that over 900 million people currently live in slums, most of them within metropolitan areas.

Metropolitan areas have become a key battleground for reducing inequalities, addressing climate change challenges and protecting human rights and, as specifically highlighted by the New Urban Agenda, establishing the 'right to the city' (right to gender equality, housing, mobility, safety, basic services and culture), a principle supported by organizations representing metropolitan cities such as Metropolis,³ as well as the peripheral cities of metropolitan areas organized through the UCLG's Peripheral Cities Committee. The New Urban Agenda, moreover, lays the groundwork for more initiatives towards more democratic and sustainable cities, within the framework of human rights. The inclusion of women's right to the city in the New Urban Agenda, in particular, can become a tool to demand the fulfilment of these commitments and monitor their implementation. Indeed, the challenges facing metropolitan areas show regional specificities.⁴

The Asia-Pacific region dominates the global urban system, with around 326 cities with a population of over one million, of which 21 are megacities (predicted to rise to 27 by 2035). The GDP growth of Asia-Pacific cities in recent years has shown a strong positive correlation with urbanization. There are, nevertheless, important sub-regional differences. While big cities in East Asia show high densities, many metropolitan areas - particularly in the South and South-East of the region — are growing at a faster rate than population growth rates, leading to sprawl and a fall in population density. Disparities are also growing between cities and countries across the region, hindering the achievement of SDG 10. While the proportion of the urban population living in slums has decreased, the number of people living in slums is increasing, particularly in South and South-East Asian sub-regions. As mentioned in the Asia-Pacific chapter, Asia is home to more than half the world's cities most vulnerable to natural disasters such as rising sea levels as a result of climate change.⁵

Latin America and the Caribbean region have 74 cities with more than one million inhabitants (46% of the urban population) and six megacities. Here one of the main concerns is security in metropolitan areas. The annual report on the 50 most dangerous cities⁶ states that most are found in Latin America, except for three in South Africa and four in the United States. Inequalities, environmental problems and the impact of natural disasters are also increasing in urban areas. The New Urban Agenda aims to achieve adequate shelter and secure tenure, particularly for people living in slums; promote a more inclusive urbanism to reduce segmented urban spaces characterized by gentrified neighbourhoods (gated communities, condos, etc.) and informal settlements (shanty towns, slums, favelas, villas miseria, etc.); and promote the right to the city for all.⁷

Africa's population is expected to more than double by 2050 to around 2.5 billion (25% of the global population).⁸ During this period, the urban population will increase threefold, from around 587 million people to around 1.5 billion.9 The region currently has 68 cities with more than one million inhabitants (37% of all urban dwellers) and five megacities. Urban planning systems have not changed significantly since the colonial era, and although some efforts have been made, many master plans are outdated or not applied.¹⁰ Moreover, economic growth does not generate sufficient employment options in the urban formal sector, thus urban areas tend to have high rates of unemployment and informal activities, particularly for youth. There are difficulties managing the pace of urban population growth which has contributed to the development of informal settlements with limited access to basic services. The proportion of people living in informal settlements represents 40% to 58% of urban dwellers.¹¹ Cities are also facing environmental degradation and environmental risks such as flooding, hurricanes, etc.¹²

The countries of the Global North are home to the remaining metropolitan areas (Europe,

including Russia, and Northern America together contain 111 cities of more than one million inhabitants, with four megacities). As outlined in the Urban Agenda for the European Union adopted in Amsterdam in May 2016, issues relating to social inclusion and sustainability are a priority for European urban areas. Four issues in particular have been highlighted as key: a) environment (climate change mitigation and adaptation, aging infrastructure and densification); b) competitiveness (jobs and new technologies, innovative territorial competitiveness); c) transport and energy (mobility, pollution reduction and energy efficiency); and d) social and territorial cohesion (migration and refugees, social participation).¹³ Gentrification has become a key issue in European metropolitan areas, since it influences the price of housing at the metropolitan scale.

Northern American metropolitan areas are facing five main challenges with regards to sustainable development: a) institutional fragmentation within and between areas which prevents metropolitan coordination; b) legacy technology (energy, transportation, and water infrastructure in Northern America are old and in need of renewal); c) the existing car-oriented approach to land-use, transportation and housing; d) lack of a national framework for the implementation of the Sustainable Development Goals and carbon reduction strategies, leaving it to lower levels of government (states and municipalities) to take the initiative on sustainable development; and e) income inequality and the precariousness of housing in large metropolitan areas (in the United States for example, in spite of being one of the wealthiest nations on the planet, there is 22% child poverty).14

Finally, the impact of technology in large cities around the world is also worth mentioning. First, the efficient use of technology as part of the 'smart cities' paradigm: acknowledging information and data to be a common good, but also respecting the rights of citizens to privacy, freedom of expression and democracy, which a number of cities are already doing.¹⁵ Second, the impact of the shared economy in cities, especially in sectors such as tourism and e-commerce, will be an important challenge to monitor.¹⁶

One of the main purposes of this chapter is to illustrate how metropolitan governance affects the implementation of the SDGs.¹⁷ The first part reviews the main challenges such as institutional fragmentation and the need for coordinated multilevel governance, while the second part addresses how metropolitan areas are implementing the SDGs. Throughout, it showcases examples of positive and less positive reforms and experiments from around the world. Finally, the chapter concludes with policy recommendations. •

2. The metropolitan context and the SDGs

Metropolitan governance and its broad institutional environment has a direct impact on the implementation of the SDGs. The 2030 Agenda must be translated into actions and policies at different scales. Metropolitan governance is thus key to the success of an integrated approach to sustainable development, as required in the implementation of the SDGs. While national political commitment and leadership are vital, given the governance structures of most countries responsibility for actual implementation lies with local institutions.¹⁸ A range of issues must be factored in to the way metropolitan areas approach implementation of the SDGs.

As the process of reform and adjustment has not kept pace with urban expansion, metropolitan governance has not kept pace with the intensified demands made upon them. As highlighted in the Montreal Declaration on Metropolitan Areas approved in Montreal in October 2015 for Habitat III, in general metropolitan areas enjoy limited political recognition.¹⁹ This results in metropolitan spaces being institutionally fragmented: multiple administrations and agencies oversee the development of urban policies, causing problems both of duplication and lack of responsibility. There is also the question of governance and leadership. In a few cases, metropolitan areas have directly or indirectly elected metropolitan governments. In OECD countries,²⁰ Northern America²¹ and Latin America²² indirect election models predominate, where those elected as political representatives in their respective municipalities form part of the metropolitan structure, with a direct impact on metropolitan institutional legitimacy and visibility from the citizen's viewpoint.

The Declaration stresses the need to promote a new partnership with other levels of government to strengthen metropolitan governance mechanisms and implement financing mechanisms adapted to metropolitan challenges; develop integrated participatory planning to reduce sprawl, promote the use of fully disaggregated data (by age, gender and territory) on socio-demographic and economic trends, and foster functionally and socially mixed neighbourhoods; ensure safe and sustainable mobility and environmental sustainability to fight climate change; and promote inclusive policies for housing, social services, gender equality and cultural heritage. Transversally, gender equality should be mainstreamed within all such policies. In fact, metropolitan areas often have limited fiscal autonomy: they mostly depend on transferences from other administrations, as well as on the national institutional framework and the powers and resources devolved to them.²³

Those elements that shape the institutional environment at a metropolitan scale for the development of the SDGs are briefly reviewed in the next section. The first section examines the different models of metropolitan governance and their relationship with the implementation of SDGs, while the second considers the institutional environment and arrangements needed to facilitate actions. The last section is devoted to analysis of references to metropolitan areas in the Voluntary National Reports (VNRs) of 2016, 2017 and 2018.

The Habitat III thematic meeting in Montreal, in October 2015 (photo: © Metropolis/BenDesjardins).



As big cities have grown beyond their historical political and electoral boundaries, their governance has become more complex and fragmented, comprising a series of local authorities, governments, agencies and interests that were not designed to address issues at the metropolitan scale. This means that they are usually governed by some form of power-sharing, with varying levels of legitimacy and transparency. In fact there are many models of metropolitan governance, with no one model suitable for all. Each metropolitan area has its particularities and form of governance. As stated in GOLD IV and other reports,²⁴ four main models of metropolitan governance are generally recognized based on the type of institutional arrangements in place, ranging from models of hard to soft governance:²⁵

- Metropolitan governments or structures created expressly to deal with metropolitan challenges (one-tier or two-tier).
- Sectoral metropolitan agencies to manage or plan single services (public transport, environment, police, etc.).
- Vertical coordination, in which metropolitan policies are not carried out by a metropolitan body but de facto by other levels of government that already exist (a region, a province, a county, etc.).
- Less institutionalized models (soft or informal coordination) based on municipalities' voluntary cooperation, whether through an association of municipalities or by means of strategic planning.

Each model has its advantages and disadvantages. Most metropolitan areas are in fact hybrids of more than one model because of their complex geographies, the status of different delivery agencies, and the fact that they are nested within governance structures both above and below them. While there is an ongoing debate about the positive and negative features of these different types of metropolitan governance, this chapter considers them through the lens of implementation of the SDGs. $^{\rm 26}$

Different ideas are associated with the development of urban sustainable agendas and the model of metropolitan governance. The first model, that of metropolitan governments, does not in itself guarantee effective implementation of the SDGs, especially when there is a lack of binding mechanisms (often the case in the twotier model).27 In other words, the absence of exclusive powers for these institutions in key areas such as metropolitan infrastructures is a weakness in metropolitan arrangements. Competence for key infrastructures such as highways, railways, ports and airports is typically in the hands of national or sub-national governments (federated states and regions). Another obstacle is the lack of fiscal autonomy of metropolitan institutions, which is especially problematic in light of the fact that municipal expenditures per capita tend to be higher in metropolitan areas because of the nature of services (e.g. public transportation and waste collection). In most cases, funding from metropolitan institutions comes from a mixture of sources, mainly transfers from other levels of governments and taxes. Whilst in France, new métropoles have more financial autonomy (own taxes), in England there is a direct assignment from central government.28 Relying heavily on ownsource revenues (taxes and user fees) and having the freedom to levy taxes creates more fiscal autonomy than reliance on intergovernmental transfers, which can be unpredictable and restrict the ability of metro institutions to control their own destiny.29

The absence of powerful metropolitan governments means that, in practice, the actions of metropolitan governments are often bypassed by the municipalities (for example in Barcelona and Montreal)³⁰ or central government (for example, Bangkok).³¹ In this sense, in order to

also true that having a metropolitan government at least provides the institutional framework to legitimize the development of urban agendas. One clear example of this is Seoul, capital city of South Korea and one of eight high-level local governments classed as a 'Special City'. Democratic reforms in South Korea in the 1990s led to the first mayoral election in Seoul in 1995. Seoul is pursuing sustainable development through key initiatives based on participatory urban planning and governance processes. It is the only metropolitan area in the Asia-Pacific region to attempt to address all 17 SDG Goals, but not all the Targets (see Asia-Pacific chapter, Box 4). In fact, the metropolitan government of Seoul does not cover the full metropolitan functional area. In contrast, the second model of metropolitan governance based on sectorial metropolitan agencies (and utilities) that manage or plan a single task or service (public transport, environment, police, etc.) can be useful for the implementation of one of the Goals (e.g.

achieve greater policy coherence, cooperation needs to be strengthened between different

levels of government to ensure that policies

aligned with the SDGs are effective. That said, it is

mobility, water and sanitation etc.), but the main weakness of this model is that it lacks an integrated vision. To compensate for this single issue focus, coordination with other agencies and levels of government is essential, as is the case in Melbourne. Indeed, Greater Melbourne is made up of 31 municipalities which vary in land area and budget. At both state and municipal government levels there are initiatives underway to localize the SDGS. ³²

As for the third model of vertical coordination, where metropolitan policies are not carried out by a metropolitan body but by other levels of government that already exist (a region, a province, a county etc.), the development of SDGs depends mainly on the competences and financing of this layer of government (and how it is coordinated with other layers). One example of this is Metropolitan Lagos, located in Lagos State in the south-west of Nigeria. The metropolitan area of Lagos comprises 16 local government areas which, together with a further four local government areas, combine to form the State of Lagos. Many of the local government area's responsibilities in Lagos have been taken over by the state government which has established up to 11 agencies to undertake functions in Lagos, and this has contributed to high institutional fragmentation. Attempts have been made to move beyond sectoral metropolitan authorities to a Lagos Mega-City Development Authority, as set out in a Bill, but this has not yet been realized.³³ In contrast, Berlin also has a model of vertical coordination which has proved more successful.

This chapter considers the different types of metropolitan governance through the lens of implementation of the SDGs.

With 3.5 million inhabitants, it is both a German Lan of the Federal Republic of Germany and a city. This means that the Senate Chancellery of the federal state of Berlin is located in Berlin Town Hall and is the official seat of the Governing Mayor of Berlin, who has the same rank as a minister-president. The city-state of Berlin has more powers than ordinary German cities. However, the metropolitan area exceeds the administrative limits of the city-state and includes the surrounding municipalities of the Berlin-Brandenburg metropolitan region, with no institutional recognition. It is the city-state of Berlin then that leads the development of a metropolitan vision.³⁴

Finally, the fourth less institutionalized models are based on municipalities' voluntary cooperation, whether through an association of municipalities or by means of strategic planning. These are soft forms of metropolitan governance, where other actors can participate in the development of the SDGs. This model is often used as a mechanism to gather all actors together where there is high institutional fragmentation. There is therefore a large degree of openness towards public and private actors and other stakeholders. One outstanding example is New York City (NYC), which was the first city in the world to report to the UN on the status of efforts to achieve the global benchmarks to address poverty, inequality and climate change by the year 2030. NYC's achievements in sustainability since 2015 have been carried out under the OneNYC strategic plan (see North American chapter, Box 1).

Although there is no one size fits all solution, adequate metropolitan governance arrangements can contribute to an integrated vision on sustainable urban development, which is required for implementation of the SDGs. At the same time, the increasingly complex landscape of urban metropolitan areas — megacities, urban regions and corridors — and the challenges posed by the SDGs and related global agendas requires a rethink of metropolitan governance systems in order to better address the whole urban functional area and overcome institutional, social and spatial fragmentation. Weak metropolitan governance undermines the potential of metropolitan areas to function as cornerstones of national sustainable development. O

2.2 Institutional arrangements to foster the implementation of the SDGs

The extent to which multilevel governance works is a key factor in creating an enabling institutional environment for the implementation of the SDGs. Indeed, lack of coordination between the different institutions involved in metropolitan management with competences related to the development of the SDGs clearly affects their implementation.³⁵ In the case of metropolitan areas, this coordination is in the hands of cities when no metropolitan institutions exist or when metropolitan institutions have limited powers.

A key question related to institutional fragmentation is city form and size, which affects leadership and the capacity to guide the development of urban agendas. Some metropolitan areas are monocentric, with a dominant central city where the implementation of the SDGs is clearly led by the main city, especially when they have a predominant demographic, economic and political weight (e.g. Madrid and Berlin). This is also the case for consolidated local governments such as eThekwini Municipality (a merger of Durban and other municipalities) in South Africa, Nairobi in Kenya and Toronto in Canada, where one finds a single elected local government administering the whole metropolitan area (but where the urban area has spilled over the administrative boundaries). Other metropolitan areas, such as Manila, are polycentric and leadership is more diluted among the different municipalities.

Another significant problem concerns utility service agencies, which may be provided by a public agency state-owned enterprise, Public-

A significant problem concerns utility service agencies that are not brought into or show no interest in localizing the SDGs. Private Partnership (PPP) or other outsourcing arrangement. Many of these utilities are not brought into the localizing of the SDGs, and some show no interest in doing so. For example, there is little incentive for privatized water utilities to achieve savings in water supply as this will have an impact on profits. This problem has arisen in Manila and Jakarta, where water supplies have been privatized. The same applies to solid waste services, electricity and energy, where payments are based on increased sales rather than rewarding efficiencies which would support achievement of the SDGs. Some cities, often prompted by the citizenship, have fostered the creation of city-owned enterprises for the supply of basic services such as energy, following the principles of environmental sustainability (i.e. they only supply renewable energy) and social sustainability (i.e. they ensure service provision to the most vulnerable groups). This is the case in Hamburg,³⁶ Barcelona³⁷ (energy services), Paris,³⁸ and Dar es Salaam³⁹ (water services), with numbers growing.

In this sense, as underlined in GOLD IV, empowered local governments with stronger democratic legitimacy are a precondition for promoting inclusive implementation arrangements to facilitate dialogue and consensus. Their success depends on the availability of an adequate legal framework and related incentives to achieve 'buyin' from all levels of government - particularly from core and peripheral cities.⁴⁰ This is important as peripheral jurisdictions often find it difficult to advance their interests over the interests of central cities, whose bargaining power with investors and higher levels of government can be superior.⁴¹ The imperative for peripheral cities and territories is to create governance arrangements that reflect both their importance to metropolitan areas and their distinctiveness within them, fostering a polycentric and inclusive approach to metropolitan issues. Existing examples show that the democratic legitimacy of local governmentled metropolitan partnerships is critical to building

effective policies for larger regional issues, as well as strong respect for the principle of subsidiarity in multi-layered contexts.⁴²

This situation differs depending on the characteristics of cities and metropolitan spaces in each continent, but there are several cases in all the continents where multilevel governance is not particularly effective. Metro cities such as Los Angeles, Manila, Bangkok, Sao Paulo, Colombo and Sydney comprise a multiplicity of layers of central government agencies and local governments, often with differing political leanings. Cities such as Bangkok, Delhi, and Manila have imposed metropolitan development authority governance structures to address coordination and urban management issues, but these have a number of weaknesses.43 In Auckland, New Zealand, regional difficulties in coordination between five local governments led the central government to hold an enquiry that resulted in amalgamations into one metropolitan region.44 In some cases, however, local governments have been able to build voluntary bottom-up metropolitan partnerships despite a national context that largely favours top-down arrangements. Greater Manchester in the United Kingdom is one example where the practice of voluntary partnership emerged over 25 years under the stewardship of committed and charismatic local politicians. This resulted in the establishment of a combined authority to bring together ten local authorities and provide a stronger and more democratically legitimate model of metropolitan governance.⁴⁵ In Indonesia, the Kartamantul partnership stands out as an example of horizontal cooperation (see Box 1).

The complexity of multiple layers of local government and the competition for resources between them makes it extremely difficult to create a competitive enabling environment in large cities. A deep-rooted ethos of political consensus can make this voluntary approach highly effective, although this is the exception rather than the rule (e.g. in Switzerland, the Netherlands and Sweden).⁴⁷ In other cases, tackling the institutional challenges facing local government will involve reducing the number of institutions operating at a metropolitan scale and increasing the profile of local government. One of the emerging experiences in Africa has been ensuring local government powers are entrenched in the constitution and, through re-demarcation, that single jurisdictions are created, particularly in metropolitan areas. This was the case in South Africa in the period 1996-2000 and, more recently, in Kenya, where Nairobi and Mombasa have been accorded county status.

In the Asia-Pacific region, some metropolitan areas actively working on the SDGs have established independent frameworks and reporting mechanisms that will have to be

Box 1

The Kartamantul Partnership

Like other countries in the Asia-Pacific region, Indonesia faces many challenges in localizing the SDGs at a metropolitan level. These apply to Kartamantul as much as they apply to Jakarta or Medan.

- Functional assignment. Most of the SDG indicator achievements are carried out by programmes at city/regency levels, while the preparation of local action plans is executed by provincial governments (money follows function).
- 2. Coordination between provinces and cities/regencies. In several local training sessions conducted by the Localize SDGs programme, one of the issues raised was that coordination should be improved between provincial and city/regency governments in relation to the SDGs. At provincial levels, awareness of the SDGs is relatively high whereas at city/ regency levels it is less pronounced.
- Data availability. The Ministry of Planning (Bappenas) has prepared SDG indicators metadata. However, at regional levels not all data is available due to limited access, differences in calculation etc.

Kartamantul (Greater Yogyakarta) forms part of the Special Yogyakarta region and is made up of Yogyakarta City, Sleman and Bantul Regency. The population of Kartamantul in 2017 was 2.4 million,⁴⁶ covering an area of 1,114 km². Kartamantul is an inter-local government partnership in Indonesia managed by a joint secretariat, covering one city (Yogyakarta) and two regencies (Sleman Regency and Bantul Regency). It was set up after decentralization in 2000 to manage and coordinate the following services, although it does not rely on a formal metropolitan regional plan: garbage management, liquid and solid waste management, drainage management, road management, clean water, transportation and spatial layout in the region. The Kartamantul Partnership can be sustained as long as local governments recognize their mutual dependency and act for common, shared interests and objectives. In this sense, it has proved to be a valuable management mechanism to ensure improved coordination of planning and infrastructure in the region.

Source: Bappenas (2018). 'The Survey on Promoting Planning and Implementation of Sustainable Development Goals (SDGs) In the Republic of Indonesia'.

integrated into national reporting and submetropolitan regions reporting at a later stage. However, in metropolitan areas such of Manila and Jakarta, cities making up the metropolitan area have different agendas and priorities in localizing the SDGs.⁴⁸ It is extremely difficult, therefore, to gain consensus between the many layers of metropolitan government, and even more difficult when metropolitan utilities such as state-owned or privatized water and electricity utilities are included in the reporting framework.

Moreover, the degree of local autonomy also affects the capacity to solve metropolitan

The 2010 gay pride parade as it cruises through the favela of Rocinha, in Rio de Janeiro, Brazil (photo: Saulo Cruz, bit.ly/2Mx8jSd).



challenges in implementing the SDGs. While in European Nordic countries municipalities have a high degree of financial autonomy and competences in health, education and sustainability, local governments of most African,49 Asian and Latin American countries lack the powers and financial, technical and human resources to solve these issues. In other words, they are more dependent on national policies. The opportunity of SDGs to bridge the gap requires the development of improved and new governance arrangements and structures to coordinate approaches both vertically and horizontally between the different governments and agencies and ensure an adequate share of resources across all levels of government to achieve common targets.

Overthe pastfewyears, governance approaches have shifted towards more participatory and decentralized processes, in which the principles of co-creation, accountability, transparency, inclusion and citizen rights advocacy have been the true drivers of social change. However, despite this progress towards more inclusive mechanisms, and even though women and other vulnerable groups enjoy an unprecedented institutional presence in decision-making processes, there is still much to be done before governance models truly promote equality and challenge discrimination and women's rights violations (SDG 5). These goals can only be achieved by acknowledging and highlighting the inequalities and difficulties that women still face in their daily lives in metropolises and urban communities: differences in class, education, accessible financial resources, quality of life, culture and symbolic environment and legacies. To challenge these differences through redesigning access and use of urban facilities and public space, as well as including all marginalized groups in planning and political organization — it is essential to re-think the way metropolises are managed. This should not be limited to the women's collective, but should also include all other 'invisible' groups of today's cities for example LGBTQIA+ communities, ethnic and religious minorities and age groups.⁵⁰

To sum up, there are a number of different metropolitan governance mechanisms for the implementation of the SDGs. However, a fair and sustainable metropolitan governance system ultimately should observe several key principles: **empowered local governments** with elected metropolitan authorities that are **accountable** to their citizens; **subsidiarity**, with a clear definition of roles and powers between different levels of governments and among local governments; and **adequate resources and financial instruments** to incentivize and encourage local government cooperation.

2.3 Metropolitan areas and the Voluntary National Reports

An analysis of the VNRs for the years 2016, 2017 and 2018 shows that a growing number refer to the contribution of sub-national governments and, in particular, big cities in the achievement of the 2030 Agenda. The VNRs have begun to address the metropolitan dimension as well, although it does not attract sufficient coverage and specific related challenges are not clearly addressed. Only some countries (e.g. Poland, 2018) recognize the identity of metropolitan areas and involve them in the multi-level governance system for SDG implementation. Australia (2018) relied on the country's LGAs, major cities and the Eastern Metropolitan Regional Council (Perth) in drafting the VNR. These three tiers of government are also involved in the City Deals programmes to deliver long-term outcomes for large cities and regions and the 2030 Agenda, further underlining the leading roles played by Perth Eastern Metropolitan Regional Council and Melbourne City Council.⁵¹ Mexico's 2018 VNR acknowledges that 'although they do not have metropolitan governments, metropolitan areas — as large population centres — also play an important role [and] have the potential to impact national achievements',⁵² thus recognizing the need to localize the SDGs to reduce important differences between metropolitan areas as highlighted by the Sustainable Cities Index created by Citibanamex.

Significant opportunities have been missed, for example in Italy where, despite having a specific national operational programme for metropolitan areas characterized by economic and social marginalization, urban decay and lack of services (PON Metro), the 2017 VNR was not able to assess the status and performance of each of these metropolitan areas in terms of their achievement of the SDGs. In contrast in Brazil, where a 2015 federal law set out requirements for the institutionalization of metropolitan areas as well as guidelines for planning and multilevel governance,⁵³ the federal government recognizes the importance of such institutions in the 2017 VNR by underlining the awareness-raising initiatives that have been undertaken, specifically targeted at metropolitan areas (dissemination of a localization manual for SDG 11). In other VNRs, metropolitan areas (or large cities) are analysed from a substantive perspective - as in the Colombian 2016 VNR — or introduced as examples of good practice together with those of other local and regional governments (Ecuador 2018 VNR presents the experiences of Quito; whilst the Japan 2018 VNR does the same with Kitakyushu Metropolitan Area). Some VNRs analyse key metropolitan challenges: the national governments' new regulatory benchmarking, structural plans, urban policies and management plans within the cities (e.g. Saudi Arabia 2018 for Riyadh); the creation of new urban centres to stop the growth of non-sustainable practices in the principal ones (e.g. Qatar 2018 for Doha, and Egypt 2018 for Cairo); urban planning, health, housing and security (e.g. Uruguay 2017); exclusion and social vulnerability, and coastal management (e.g. Brazil 2017); environment (e.g. South Korea 2016, which includes two metropolitan indicators, namely metropolitan air quality and size of park areas in metropolitan cities); and transport (e.g. Sri Lanka 2018, Belgium 2017 for Antwerp and Brussels). The Greek VNR 2018 outlines the roles played by Athens and Thessaloniki, giving them a high profile in the report with abundant references to their achievements with regards to a number of metropolitan challenges. Additionally, the drafting of regulatory plans for their territories is the fourth pillar of the Integrated Spatial Planning Strategy (together with the national document, the twelve regional documents and other specific frameworks).

In spite of the fact that many successful local initiatives have been used as examples in the national VNRs, the space given to metropolitan areas, their problems and specificities is insufficient, clearly demonstrating that work with these institutions is not considered strategic by national authorities globally. More joint work with, and greater visibility of, metropolitan areas will be needed in the years to come. ^O

3. Metropolitan actions for the implementation of the SDGs

Cities and thus metropolitan areas are among the frontrunners as far as the 2030 Agenda localization process is concerned, and this is demonstrated throughout the different regions in the world. Previous chapters in the report have shown that metropolitan areas such as Buenos Aires, Barcelona, Berlin, Copenhagen, Durban, Los Angeles, Madrid, Mexico City, Medellin, New York, Quito, Paris, Shenzhen and Seoul amongst others, have taken the lead, often ahead of their national governments. They have committed to achieving the 2030 Agenda by aligning their development agendas and public policies to implement the SDGs; by making institutional arrangements to facilitate coordinated implementation; by engaging citizens and metropolitan stakeholders with the SDGs; and by sharing experiences and dealing with metropolitan challenges such as transport, climate change and social inclusion. However, metropolitan areas must manage significant obstacles in this process. The next section analyses different metropolitan experiences to understand how big cities are addressing the 2030 Agenda, both directly and indirectly, through their sustainable development strategies and policies.

3.1 Metropolitan contributions to the achievement of the SDGs

Metropolitan areas and big cities have been among the most committed actors worldwide to address the 2030 Agenda and to align their development strategies, plans and public policies with the SDGs. Many have acknowledged that the challenges they face can be addressed by the Agenda and that they are already contributing to the SDGs through a wide range of innovative solutions and practices. They see the 2030 Agenda as an opportunity to improve their policy-making processes, addressing sustainable development in a more integral manner, involving citizens and metropolitan stakeholders, focusing on the most vulnerable and being more transparent and accountable.

Many metropolitan cities have made important progress in the alignment of their strategies and local development plans with the SDGs, as well as with the other global agendas (Paris Climate Agreement, New Urban Agenda, Sendai Framework). However, metropolises in most contexts face important institutional constraints. Together with the inherent weaknesses in governance, the challenges faced by metropolitan areas are often under-reported in the global, regional and national agendas, as has already been discussed in this chapter. The New Urban Agenda and the Paris Agreement on climate change, for example, give insufficient recognition to the metropolitan dimension. And this, despite the strong presence of the top mayors in Habitat III, in the COP 21 and, annually, in the HLPF in New York.

Despite this complex reality, the 2030 Agenda, as well as other global agendas, have served as leverage to **improve the policy-making process** at metropolitan level. The process of aligning sustainable development plans with the 2030 Agenda has led to concerted efforts by metropolises to involve teams, citizens and metropolitan stakeholders. Mexico City, for example, launched a training and awarenessraising workshop for members of the government, officials and representatives of the main institutions of the city to introduce the SDGs as the roadmap for the new planning process to begin after the 2018 elections.⁵⁴ Bogotá used the SDGs to open new platforms for citizen participation, in partnership with the UN. Buenos Aires and Quito have also led the alignment process in their countries (see Box 2). Amsterdam through its MediaLab launched the so-called Global Goals Jam 2017, a two-day event consisting of short design sprints, which brought together local

Box 2

The case of Buenos Aires (Argentina)

The Participative Strategic Plan Buenos Aires 2035 (PEP BA 2035) is the result of joint work with 183 civil society organizations (CSOs). Organized into working groups, the selected local stakeholders defined from scratch the goals, vision, strategic axes, guidelines, proposals and projects. PEP BA 2035 defined five strategic axes related to the SDGs (31 out of 96 proposals are aligned), one of them being the metropolitan axis which includes all competences related to sustainable mobility, infrastructures, services, waste management, basins, ports and airports, and metropolitan information systems. Special mention is also made of metropolitan resilience, including prevention and early warning of the different phenomena associated with climate change. One of the biggest challenges is establishing a metropolitan institution. The city is promoting a gender indicator system, in line with SDG 5; a specific sustainable mobility initiative complying with SDGs 11 and 13; and a cross-sectoral project the Urbanization and Urban Integration Plan - which contributes to SDGs 11, 6, 7 and the rest of the SDGs to a lesser extent. Specific work is also being carried out to align the city council's performance to SDG 16.

Source: https://www.buenosaires.gob.ar/noticias/plan-estrategico-participativo-buenos-aires-2035-pep-ba-2035.



Box 3

SDG alignment and localization in eThekwini-Durban

In South Africa, the municipality of eThekwini-Durban has aligned its Integrated Development Plan (IDP) with the SDGs. For the last two fiscal years, eThekwini has incorporated the SDG targets and indicators into its local government responsibilities and municipal budget using a bottom-up approach as part of the city's strategic approach to sustainability. This alignment has focused on four main pillars: human rights, people, the planet and prosperity. This exercise has allowed the city's metropolitan area to introduce a system of benchmarking that permits more robust monitoring and a better reporting framework. In 2017, 66 out of 98 SDG indicators had been aligned with investment projects; in 2018, this number increased to 75. With support from local government affiliated organizations such as the eThekwini Municipal Institute of Learning (MILE), eThekwini Municipal Academy (EMA), and UCLG, the city has been able to improve its capacity and understanding of the SDGs. By providing input into SDG Toolkit developments and assisting in the training of trainers on SDGs, the city is enabling advocacy, learning and institutionalization of the SDGs amongst its own officials as well as those from other cities.

Source: Puvendra Akkiah, 'Unpacking the global agenda: implementation in eThekwini'. Unpublished powerpoint presentation (contribution to UCLG GOLD V).

creative teams of designers, developers and jammers as well as the council's technical staff to work up innovative ideas to contribute to the five SDGs prioritized by the council (SDGs 1, 2, 3, 4 and 11).⁵⁵ The Berlin Strategy/Urban Development Concept Berlin 2030 provides an inter-agency model for the long-term sustainable development of the capital and was developed following the participative process 'Shaping the City Together'. This was open not only to the citizens of Berlin and Senate representatives but also more than 100 associations, local authorities and institutions from across the region of Berlin-Brandenburg.⁵⁶ In other regions, eThekwini-Durban led the alignment of the 2030 Agenda with the metropolitan plan in South Africa (see Box 3).57

Involving metropolitan stakeholders is key as they bring knowledge, creativity, resources and technology, amongst other assets. Articulating mechanisms that foster public and private coresponsibility for a shared development is not an easy task, but the 2030 Agenda and SDG 17.17 in particular - offers a unique opportunity to do so. Metropolitan areas such as Tshwane, San Francisco and Seoul have already oriented their sustainable development strategies together with their local partners — business and civil society - thanks to the Global Compact Cities Programme.⁵⁸ Others cities, such as Paris, London, Lagos, Greater New York, São Paulo, Shanghai, and Stuttgart, have fostered PPPs to complement the government's resources and institutional capacities.⁵⁹ In the same vein, relating



The harbour of eThekwini-Durban, Kwazulu Natal, South Africa (photo: South African Tourism, bit. ly/2Mx7VD4).

local sustainable development strategies to the capabilities of **knowledge-based institutions** can achieve more efficient and innovative public policies, as demonstrated by a number of good practices being implemented around the globe. For example, Los Angeles City Council's partnership with Occidental College relies on the latter's knowledge base, research, and data collection skills to accelerate pursuit of the SDGs. The city presented its Voluntary Local Review (VLR) to the UN in July 2019.⁶⁰ Its memorandum with the World Council on City Data (WCCD) will turn Los Angeles into one of eight local data hubs for sharing information related to the SDG indicators.

In addition to involving citizens and key stakeholders in the policy-making process, other metropolitan areas have also shifted towards more **transparent and accountable mechanisms**. New York has linked transparency and accountability efforts with the SDGs by being the first metropolitan area in the world to report to the UN on the status of efforts to achieve the global benchmarks to address poverty, inequality and climate change by the year 2030.⁶¹

However, robust accountability requires **data**. Transposing the 2030 Agenda's **indicators** into a metropolitan reality is a major challenge. Initial efforts have been developed in partnership with specialized institutions such as Sustainable Development Solutions Network (SDSN),⁶² the World Council on City Data,⁶³ the research group Mistra Urban Futures⁶⁴ and LSE Cities (see Box 4). In fact, the role played by several knowledge-based

Box 4

Metropolitan indicators

In 2019, Metropolis, in partnership with the Metropolitan Area of Barcelona, commissioned the London School of Economics and Political Science to develop a set of 38 metropolitan indicators, based on the analysis of 69 metropolitan areas and a standard methodology to collect information from all members of the Metropolis network. The indicators are divided into six groups in accordance with Metropolis' strategic vision: context and governance, economic development, social cohesion, gender equality, environmental sustainability and quality of life. Including new and existing metrics, the indicators are based on an exhaustive review of the academic and grey literature, and of existing global datasets and data collection initiatives from international bodies/observatories; national statistic offices; local and regional authorities' data; academic references, and NGOs and other associations.

Source: https://indicators.metropolis.org.

platforms in capitalizing on the initiatives launched by large cities and underlining the obstacles and risks faced by them, is making a significant contribution to visualizing the potential of local governments in the achievement of the SDGs. Beyond these international approaches, efforts should be made to reinforce data and information systems owned by metropolises worldwide. \odot

3.2 Addressing the main metropolitan challenges in line with the 2030 Agenda

Large cities and metropolitan areas are today the backdrop for some of the world's main global challenges, as discussed in the introduction of the chapter. At the same time, they have by and large been proactive in the search for innovative solutions to these challenges affecting all spheres of sustainable development in a cross-sectoral manner and, whether directly or indirectly, have moved their territories closer to the achievement of the 2030 Agenda. However, they face important contradictions in trying to foster a more inclusive and sustainable development. They promote growth, jobs and competitiveness whilst at the same time they are exposed to increasing urban inequalities and social fragmentation.

Speculative investments, the introduction of new technologies in the market and the concentration of highly qualified employees with high rates of income have produced gentrified areas and resulted in the expulsion of part of the population towards the outskirts and marginalized areas, with a subsequent increase in social exclusion. Current economic models and growth clash with the urgent need to reduce the environmental footprint of large cities and metropolitan areas and transform production and consumption patterns with a clear environmental impact. The absence of gender mainstreaming strategies; of participatory mechanisms that include an array of diverse voices; the weakness of internal coordination mechanisms; deficient multilevel cooperation and the lack of resources, powers and capabilities all act as an additional

Nascent initiatives such as the sharing economy, control of the use of technologies and data can minimize the current negative externalities of uncontrolled growth and investment. hindrance to change. However, metropolitan areas still strive to come up with new solutions that could be replicated in other territories. The following section gives examples of actions taken by metropolitan cities, adding to the examples described in previous chapters.

Relentless growth does not mean sustainability; new economic initiatives offer slow but steady progress

As mentioned above, metropolitan areas are important generators of employment, wealth and productivity growth to the extent that many of them are the main economic engines of their country.65 However, there is an urgent need to foster a more inclusive and sustainable economic development that minimizes the current negative externalities of uncontrolled growth and investment such as territorial segregation and polarization, unemployment and other deficient labour conditions, and environmental degradation. Nascent initiatives such as the sharing economy, control of the use of technologies and data and programmes to support innovation and small enterprises could offer solutions to counterbalance such externalities.

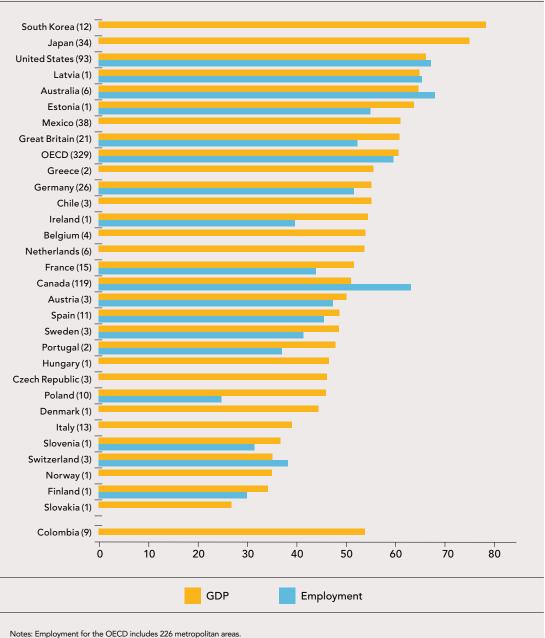
The 300 largest metropolitan economies in the world account for almost 50% of the global output.⁶⁶ The GDP of some cities is higher than that of many countries in the world. However, different patterns can be observed across regions: in European OECD countries, capital metropolitan areas represent 48% of national GDP (with the exception of Paris, with a much higher contribution), while in Asia and Northern America this figure rises to 66%.67 Kinshasa represents 13% of the population of DRC but accounts for 85% of the country's GDP, while Metro Manila is 12% of the population of Philippines and represents 47% of the national GDP.68 These figures would surely grow if we took into account the extensive nodes that form megacities, urban corridors and city-regions characterized by unprecedented geographical extension and demographic volume.69

Cities are responsible for the creation of a large share of new jobs (SDG 8): between 2006 and 2012, 87.7 million private sector jobs were created in the 750 largest cities in the world, accounting for 58% of all new private sector jobs in the 140 countries to which they belong.⁷⁰ For example in the United States, metropolitan areas account for 84% of total employment and 88% of labour income. Production, services, capital and infrastructures, governments, companies, CSOs, universities and research centres are all located in these cities.71

New technologies have played a major role in improving and innovating territorial competitiveness and growth. Most research and innovation takes place in large cities, and technological clusters and new economic models flourish there. In India, it has been calculated that 49 metropolitan clusters will account for 77% of incremental GDP between 2012 and 2025.72 New technologies have also rendered cities smarter and more adapted to citizens' needs (SDG 8.2), offering them public and private services and goods at an affordable price. Singapore has

Figure 2





Source: OECD (2018), Metropolitan areas,, OECD Regional Statistics, http://dx.doi.org/10.1787/data-00531-en.

The financialization of urban economies has turned the concept of 'cities for living' into 'cities for investing'.

> digitalized many services for citizens' daily lives (registering children for school, obtaining tax incentives, reporting on a cardiac arrest of anyone within 500 feet), eliminating red tape and ensuring data privacy.73 In Chicago, the rodent population is being controlled by using predictive analytics to determine which trash dumpsters are most likely to be full and thus attract more rats.⁷⁴ The Bangalore Water Supply and Sewerage Board's real-time feedback on the status of the water supply enables the institution to make timely modifications to the water distribution patterns; reduce energy costs related to water transmission through more efficient pumping and delivery; and mitigate water loss due to theft, leakage and malfunction, potentially conserving as much as 40% of the water supply.75

> Nevertheless, the economic model that increasingly dominates these global cities has wide and complex externalities for the economy, the environment and social cohesion, and this varies in its intensity and effects across regions. Globalization phenomena are particularly concentrated in

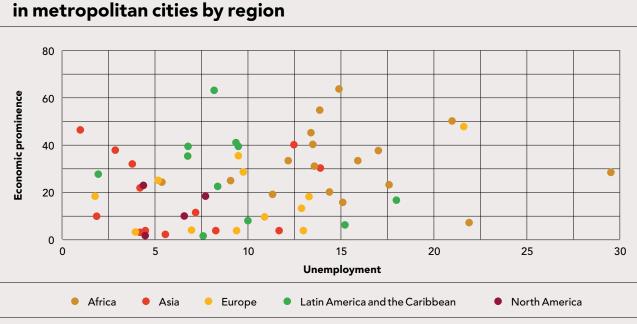
Unemployment and economic prominence

big cities, where the financialization of urban economies has turned the concept of 'cities for living' into 'cities for investing'. One manifestation of this is the rise in property rents and sales prices, often driven by growing investments by big private equity and hedge funds to control the real estate in most major cities.⁷⁶ The reshaping of the urban landscapes in big cities (fragmentation of the urban space through privately financed 'mega projects', increasing gaps in labour markets, commodification of public services) is contributing to urban segregation and polarization, pushing the traditional middle and working classes to the outermost peripheries or, in many developing countries, to expanding marginal neighbourhoods or slums. In many countries, young people, women and migrants are particularly hit by difficulties accessing jobs and decent shelters, which has led to the expansion of informal economies and settlements.77

In some cities, specific sectors such as tourism can also contribute to social polarization, pushing traditional residents out of the core town areas and resulting in precarious employment conditions, seasonal contracts, low added-value jobs, rising commodity prices and even social conflict,⁷⁸ all of which are a far cry from the sustainable tourism fostered by the 2030 Agenda (SDG 8.9).79

Moreover, new business models based on digital platforms using new technologies (such as Airbnb, Uber, Cabify, Amazon and Deliveroo, amongst others) create new opportunities, but

Figure 3



Source: Metropolitan indicators. Metropolis and LSE Cities, available online at https://lsecities.net/objects/research-projects/metropolitan-indicators.

also have a potentially negative impact on people's privacy, traditional local small businesses and public transportation systems, as well as creating poor working conditions, encouraging tax evasion etc. In this sense, understanding new technologies and the use of big data for public services as common goods that need to be protected is an important challenge currently facing many cities. The city of Barcelona, for example, has created the first municipal office that aims for security, privacy and the ethical management of information through a more efficient, transparent and democratic system. It includes the Housing Observatory, which is in charge of tracking the housing market, gentrification, forcing out of local residents and commerce towards the suburbs etc.⁸⁰ A global Coalition of Cities for Digital Rights has been created to ensure freedom of expression, protect privacy and personal information, promote transparency, accountability and nondiscrimination of data and democratic processes in order to respect public opinion, diversity and inclusion, ensuring open and ethical standards in digital services.81

Alternative economic initiatives to develop cultural and creative industries and promote circular and shared/collaborative economies are flourishing. Territories act as laboratories for experimentation and citizens become active drivers of change. As gathered by the C40 initiative, an online sharing market and other supporting initiatives have been launched in New York; new laws in Quezon regulate the use of plastic bags to help curb ocean plastics; Sydney is co-creating industry guidelines for circular office refurbishments, and cities such as Berlin, Paris, Tokyo and Toronto are embedding social, ecological and human rights criteria into public procurement processes.⁸² Different global networks of big cities, such as Shared Cities Alliance and the Global Social Economy Forum, are supporting shared economy approaches, linking their initiatives to the SDGs.83 Finding solutions to challenges is crucial if cities want to continue to offer decent work and generate wellbeing. Although these initiatives are usually at an early stage of development, they show the path towards a more sustainable, shared future.

Metropolitan areas are also developing policies to support and assist **small and mediumsized enterprises** (SMEs) throughout the business life cycle, in addition to supporting citizens less likely to start up a business (youth, women etc.). For example Dakar relies on a business incubator for youth-led and women-led micro-enterprises to address this issue;⁸⁵ a programme launched by Addis Ababa uses micro-credit loans and provides business training;⁸⁶ Barcelona offers technical coaching, feasibility assessment, tailormade training and incubation programmes, with one particular strand targeting youth which has

Box 5

Transition to a circular economy in the Amsterdam Metropolitan Area

The Amsterdam Metropolitan Area (a partnership between the provinces of Noord-Holland and Flevoland, one transport region and 32 municipalities) is accelerating through the Amsterdam Economic Board⁸⁴ the transition to a circular economy by stimulating cooperation between business, government and knowledge institutes both in the region and internationally. The aim by 2025 is to become a leader in Europe in the area of smart solutions for the conservation of raw materials, so that valuable materials can be used more efficiently and for longer (SDGs 8, 9, 12). Additionally, by 2025 Amsterdam also aims to overcome existing challenges and become the most important place in Europe for data-driven innovation; offer citizens two additional healthy life years; have in place zero-emissions urban transport; and be the most successful region in Europe in terms of utilizing, retaining and attracting talent.

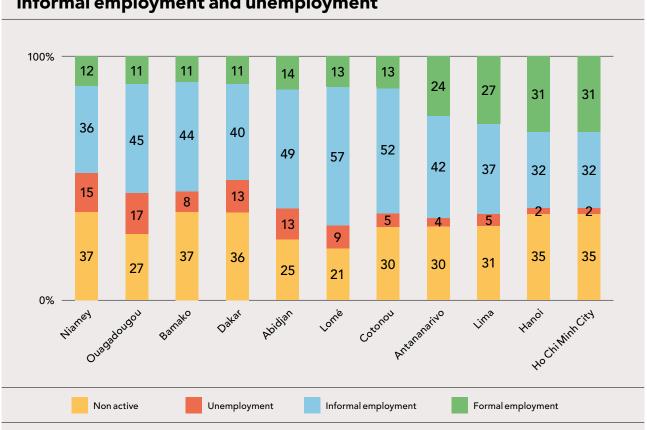
Source: https://www.amsterdameconomicboard.com/en.

helped to foster a more diversified economy;⁸⁷ and Brussels-Capital Region offers special support for the growth of green businesses in disadvantaged areas and encourages new and aspiring entrepreneurs.⁸⁸

At the same time, in various cities in developing countries, the informal economy is the main source of employment and income generation, from street vendors and waste pickers to workers manufacturing goods at home. It accounts for between 25%-40% of GDP in developing economies in Asia and Africa, with a share in nonagricultural employment of between 20-80%89 (around 80% in Abidjan, Dakar, Niamey and Bamako, 59% in Lima, 54% in Ho Chi Minh City, and 45% in Buenos Aires).⁹⁰ Nevertheless, the informal economy poses major problems for the promotion of inclusive cities, and metropolitan areas have started to look for solutions. For example, the implementation of the delegated management of markets approach in the Commune I of Bamako in Mali led to increased tax collection and established a dynamic and fruitful partnership between informal traders and the municipality. The success of eThekwini's Informal

Territories act as laboratories for experimentation and citizens become active drivers of change.

Figure 4



Working age population by formal employment, informal employment and unemployment

Source: Informal Sector and Informal Employment: Overview of Data for 11 Cities in 10 Developing Countries, WIEGO.

Economy Policy gave rise to the South African National Informal Economy Forum, a strong sign that local municipalities can influence national policies.⁹¹

Solutions that acknowledge and use the economic and social capital of the informal economy, the use of research and technology to diversify the economy and bring basic services and goods closer to the citizenship, and facilitating the social inclusion of women and youth through stable employment frameworks are still needed in metropolitan areas, which can take advantage of the economies of agglomeration.

Metropolitan areas as an important causal factor of environmental degradation, but also contributors to innovation and solutions

The IPCC Special Report on 1.5 Degrees of Global Warming⁹² (October 2018) sent a strong message: either essential changes to energy, land, urban infrastructure (including aging transport and buildings) and industrial systems are made, or it will be impossible to tackle the

catastrophic climate change impacts of global warming such as sea-level rises, increases in natural disasters, worsening health, livelihood and food security, water supply, human security, and economic growth. Big cities are part of the problem in terms of greenhouse gas (GHG) emissions, energy consumption, waste generation, water consumption and food waste. A number of metropolitan cities have been at the forefront of climate action and risk prevention. At the Global Climate Action Summit in September 2018, 27 major cities announced that their carbon emissions had already peaked, and 72 cities committed to carbon neutrality by 2050 through zero-emission transport, the use of 100% renewable energy, net-zero carbon buildings, and zero-waste by 2030, while also pledging to implement these goals in an equitable and inclusive manner.93 Key cities and their networks have been pushing for change in global negotiations over the past two decades. However, as highlighted by IPCC, a much greater collective effort is needed.

The **Covenant of Mayors for Climate and Energy**, including all the mayor LRG networks, have gathered many examples from metropolitan areas such as Seoul,⁹⁴ Tokyo,⁹⁵ Bogotá,⁹⁶ Hong Kong,⁹⁷ Lima,⁹⁸ London,⁹⁹ New York,¹⁰⁰ Mexico City,¹⁰¹ and Rio de Janeiro¹⁰² that have already developed initiatives to reduce the impact of climate change, whilst Istanbul,¹⁰³ Jakarta,¹⁰⁴ Karachi,¹⁰⁵ Moscow,¹⁰⁶ Sao Paulo,¹⁰⁷ Lagos¹⁰⁸ and Kinshasa¹⁰⁹ have taken the first necessary steps and committed to it.

In their **resilience strategies**, many metropolitan cities have adopted a more integrated approach.¹¹¹ Not only are they focused on mitigating the effects of natural disasters and climate change, but they also tackle food security, social inclusion, economic revitalization, urban brownfield rehabilitation, the fight against poverty, inequalities and exclusion.¹¹² Boston's first ever Resilience Strategy focuses particularly on confronting racial divisions, bias, and other issues that cause inequity;¹¹³ Mexico City builds water resilience as well as community resilience through citizen participation, strategic communication, and education;¹¹⁴ and Bangkok's strategy balances environmental resilience with an improvement in citizens' quality of life and the development of a strong competitive economy.115 Dakar's 2017 Resilience Strategy, the first to be adopted in Africa with the support of 100 Resilient Cities, relies on strong cooperation with the citizenship and local stakeholders to build resilience in the face of shocks and stresses and to improve the well-being of vulnerable people.¹¹⁶ Work in Dar es Salaam has shown that investing in resilient infrastructure, with proper servicing of informal

Box 6

Barcelona: measures to fight climate change

The Barcelona Metropolitan Area has taken several measures in line with the SDGs, including working for the improvement of air quality in its territory. The metropolitan programme of measures to tackle environmental pollution includes the creation of low-emission areas in pollution episodes and the promotion of sustainable mobility (bicycles, electric vehicles etc.) which directly contribute to SDG 13. The new Urban Planning Master Plan, measures on spatial planning, improvement of the rivers Llobregat and Besòs, and the coastline strategy also contribute to SDGs 15 and 17. The Barcelona Metropolitan Area is also in charge of waste management (SDG 12) and water supply and sanitation (SDG 6), the promotion of renewable energies through the establishment of a network of stations to charge electric cars with solar power and the installation of photovoltaic rooves in public buildings (SDG 7).

Source: Area Metropolitana de Barcelona, Programa Metropolità de Mesures contra la Contaminació Atmosfèrica, Memòria.¹¹⁰

settlements and the introduction of regulatory reforms (for instance on waste dumping), may prove more beneficial in the long term than the use of palliative measures during outbreaks.¹¹⁷

Sustainable transport is another field where the metropolitan impact on the environment is



The Workshop on SDG Localization tools and resources held by the Barcelona Provincial Council to raise awareness among staffers of its own departments (photo: © UCLG Learning).

considerable. Metropolitan areas, particularly in the Global North, have long been developing intermodal transportation and integrated public transport systems that combine several modalities and transit to renewable energies: bus, metro, tramway, rail, soft mobility (i.e. bicycles). Copenhagen, for example, has the ambition to be

Box 7

Lagos Bus Rapid Transit (BRT) System

To address the traffic congestion in Lagos, the national government established the Lagos Metropolitan Transport Authority (LMTA)¹²⁸ in 2002. It became fully operational in 2008. The LMTA established the Lagos BRT Lite system, Africa's first bus rapid transit scheme. The project was funded by the World Bank, Lagos state government, and private sector operators. This is a high capacity bus service which runs in dedicated lanes. The system consists of 22 km of bus lanes with 220 buses which run on a 16-hour service, transporting over 200,000 people daily. In its initial six months of operation, the service had carried over 29 million people, journey time was reduced by an average of 25 minutes and fares were reduced to less than half of what passengers had been paying to private operators. CO₂ and GHGs have been reduced by 13% and 20% respectively. The experience of Lagos shows that improvements made in the field of sustainable transport have an impact beyond the provision of basic services (crucial for the population and especially for those living on the outskirts of big cities), affecting other fields such as economic development (productivity improvements and job creation).

Source: https://lamata.lagosstate.gov.ng/.

Box 8

Energy efficiency in Beijing's buildings

Beijing is promoting the adoption of ultra-low energy new building constructions, utilizing innovative design standards and technologies to dramatically improve energy performance. The city aims to construct 300,000 m² of ultra-low energy demonstration building projects by the end of 2020; refine ultra-low energy building standards and guidance; provide training to support coordinated development across the wider Beijing-Tianjin Hebei Region; enhance and implement financial incentive policies; and develop future policy recommendations and strategy based on international experience.

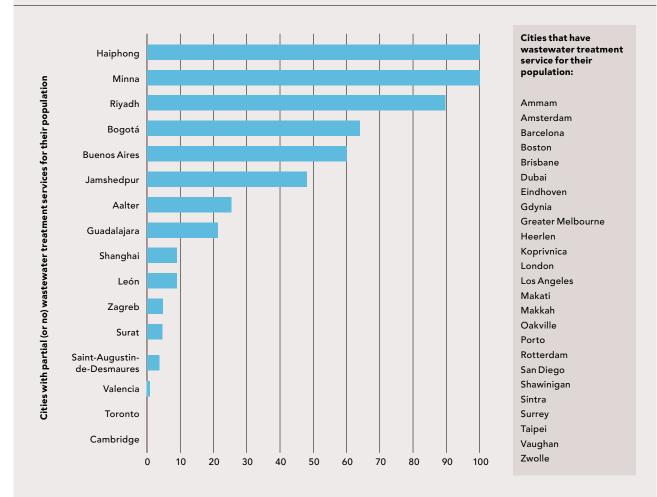
Source: https://www.c40.org/researches/constructing-a-new-low-carbon-future-china.

carbon neutral by 2025 and has taken important action in the field of transport by creating corridors for designated types of mobility such as cyclists (cycling accounts for 41% of all trips to work), buses and cars.¹¹⁸ Milan is continually improving the new technologies applied to the city's successful bike and car sharing initiatives.¹¹⁹ In the Global South, particularly in Africa, formal transport systems are unable to compete in terms of cost and speed with (often unsafe) private sector and informal sector transport initiatives. However, good practice can be found in better public transport (e.g. Bus Rapid Transit systems, developed in Bogotá,¹²⁰ but which have spread to many other cities such as Jakarta¹²¹ and Istanbul¹²² amongst others) and the use of more sustainable public transport modes (conversion of buses to biogas in Johannesburg,¹²³ investment in the metro lines in Hanoi, 124 promotion of bike lanes and bike sharing systems in Buenos Aires¹²⁵ and Chennai,¹²⁶ and electric urban cleaning vehicles in Rio de Janeiro).¹²⁷ In Brazil, through the Restructuring Plan for Public Transport in the Metropolitan Region of Belo Horizonte, the city opted to establish of an intermodal and integrated urban transport system that combines buses, underground trains and an interneighbourhood system with direct, circular and peripheral lines.

As the main energy consumers, metropolitan areas around the world have developed plans and projects to reduce energy consumption in **buildings and infrastructures**. In the Tokyo Green Building Programme, for example, buildings are rated on environmental performance and, since 2002, this has contributed to improved public health and increased the economic viability of environmentally-friendly design by altering the way buildings are valued.¹²⁹ Energy emissions reductions have also been a priority for Vancouver¹³⁰ and Chicago.¹³¹ In Hanoi, the council has fostered the conversion of beehive stoves into advanced clean cook stoves that contribute to GHG reductions by burning biomass instead of fossil fuels.¹³²

Water (SDG 6) is an essential and scarce resource whose provision is considered a human right. The 'water footprint' of cities - the area covered by their water sources - accounts for 41% of the earth's land surface. Water is crucial for metropolises, not just for human consumption but also for the functioning of the economy, which leaves metropolitan cities in a difficult position with regards to river basins and the environment as a whole. Policies oriented towards rationalizing water consumption and reutilization, especially for industrial or ornamental uses, are vital since water supply is a growing concern in many metropolitan cities. While cities such as Amsterdam, Dubai, London and Los Angeles ensure 100% service provision to the population, in Johannesburg only 65% of the population have a potable water supply service. Bangalore, Beijing, Cairo, Cape Town, Chennai, Jakarta, Melbourne, Mexico and Sao Paulo are some of the main cities

Figure 5



Percentage of the city's wastewater that has received no treatment

Source: WCCD City Data for the United Nations Sustainable Development Goals report 2017.

affected by water supply problems. With respect to sanitation, according to the World Council on City Data (WCCD), whilst metropolitan areas such as Dubai, Greater Melbourne, London, Taipei and Toronto have populations with 100% access to an improved sanitation source, high percentages of non-treated wastewater are to be found in Riyadh (around 90%), Bogotá and Buenos Aires (around 60%, see Figure 5).

Effective **waste** treatment (SDG 12.5) is also crucial for the environment and can contribute significantly to energy generation, ensuring energy security, reducing environmental pollution, and contributing to efficient land use and green sustainable economic development. This is seen in the action taken by Hanoi and Quezon City on their largest landfill,¹³³ while Istanbul's circular design approach to waste management allows the city to produce electricity and compost from different waste streams, as well as divert excess heat to greenhouses for greater productivity.¹³⁴ Johannesburg has tackled waste management in a cross-sectoral manner involving informal waste pickers in the value chain.¹³⁵

While metropolitan areas continue to be at the forefront of climate action through sustainable practices in the fields of transport, food security, buildings and infrastructures and the provision of basic services (water, sanitation, waste management, energy), climate-resilient strategies foster mitigation and adaptation in line with poverty eradication and the reduction of inequalities. Overcoming current constraints (legal and regulatory barriers, information insufficient expertise, asymmetries, lack of resources and access to borrowing, and inadequate stakeholder coordination,136 especially when no clear internal mechanisms exist) is absolutely essential if metropolitan areas are to continue to lead the way in more sustainable, environmentally friendly actions.



Demonstration on the International Day of Working Women, Santiago de Chile (photo: Fran[zi]s[ko]Vicencio, t.ly/PB6q8)-

Persisting inequalities but growing strategies for social inclusion, equity and coexistence

Metropolitan areas around the world are promoting important policies and initiatives to foster social inclusion, equity and coexistence within their territories. However, they still have significant poverty rates and inequalities (in OECD countries, metropolitan income inequality is 3.3% higher than the national average).¹³⁷ The levels of metropolitan income segregation vary hugely between countries: in South African and Brazilian metropolitan areas it is much more evident than in New Zealand or Denmark,138 but at the same time large metropolitan areas such as Atlanta, New Orleans, Washington DC, Miami and New York experience similar levels of inequality to developing cities such as Abidjan, Nairobi, Buenos Aires and Santiago, all with Gini coefficients of around 0.50.139

Exclusion and inequalities are both the cause and the result of metropolitan areas being scattered and fragmented. While centres attract business headquarters, talent and knowledge, they also expel middle class and low-income groups to the outskirts and poorer neighbourhoods.¹⁴⁰ Indeed, as metropolitan areas continue to grow at a dizzying rate, particularly in Africa and Asia, the most vulnerable citizens cannot afford decent houses and have no alternative but to move to crowded **slums and informal settlements**. Figures for the percentage of the population living in slums is around 14% in Johannesburg, 10% in Amman and Buenos Aires, and over 5% in Bogotá.¹⁴¹ The 2030 Agenda urgently calls for upgrading of slums through integral actions to ensure decent housing and access to services.

It is important that slum upgrading processes are carried out with the involvement of the people that live there and stakeholders (see Box 9) and that there is a move away from forced evictions with no provision for alternative accommodation (as occurred in Badia East within the framework of the Lagos Metropolitan Development and Governance Project).¹⁴² Articulating citizen participation mechanisms that include the most vulnerable groups is strongly in line with the 2030 Agenda. In this regard, blockchain has proved a powerful tool: in Moscow, a blockchain-based platform allows citizens to make decisions on how urban spaces can be improved; and in Buenos Aires, the Waba project has developed an application that encourages the social, civic and economic integration of the inhabitants of irregular settlements through communities that self-manage the governance of their own alternative currencies in their local markets.¹⁴³

Ensuring access to adequate and affordable housing (SDG 11) is one of the most significant challenges for metropolitan areas in all regions. As outlined in previous sub-sections, market deregulation and skyrocketing prices of land and housing are some of the issues that cities need to address. Many metropolises have therefore endorsed the declaration Cities for Adequate Housing, launched by Barcelona and UCLG as a call to acknowledge housing as a right rather than a commodity. In the declaration, the cities of Lisbon, eThekwini, Mexico City, Montevideo, Taipei, Berlin and Montreal and the metropolitan bodies of Barcelona, Greater Manchester and Seoul have committed to support the right to housing in order to implement SDG 11 to make cities and human settlements inclusive, safe, resilient and sustainable.145

To strengthen the management of metropolitan areas, big cities need to adopt strategic and integral planning approaches to better articulate service provision, urban development and land management (SDG 11.3) to ensure economic development and social inclusion. This is already being implemented in cities such as Auckland, Barcelona, Lima, New York, Riyadh, Shanghai and Tokyo, for example.¹⁴⁷ In other cases, integral planning has been carried out in specific sectors, taking into account the needs and priorities of the whole metropolitan area, for example in Montreal with the Namur-de la Savanne sector;¹⁴⁸ Berlin's District Waterkant which aims to build new housing units (with essential services such as kindergartens, pharmacies, playgrounds etc.) and develop specific traffic and mobility measures;¹⁴⁹ Brussels' conversion of a former army barrack (U square) into an inclusive district comprising families and students which combines efficiency, heritage, circular economy, sustainable development and knowledge;¹⁵⁰ and Sydney's Green Square, which has undergone a large-scale transformation into a place with a minimal environmental footprint and a vibrant and well-connected community enjoying sustainable facilities, transport networks, public spaces, high-quality housing, commerce, services and jobs.¹⁵¹ In developing countries, this strategic approach is still limited.

Almost all metropolitan areas are hosting an increasing number of **migrants**, whether internal or international. Migrants are one of the most vulnerable groups referred to in the 2030 Agenda, with women being particularly vulnerable because their quality of life is strongly dependent on local policies. Cities are important for guaranteeing

Migrant's quality of life is strongly dependent on local policies. Metropolitan areas can facilitate access to housing, jobs, education and health.

Box 9

Planning development in Eastern Africa: Mukuru's Special Planning Area

Significant efforts have been made in Nairobi's slum upgrading programmes, which differ both in size and scale.¹⁴⁴ In one, the government built around 4,000 housing units in Soweto (Kibera) to be sold at subsidized rates, but many residents cannot even afford such subsidized prices. In the other in Mukuru in the east of Nairobi, the government created a Special Planning Area with significant involvement of the social movement Muungano wa Wanavijiji, which has long collected data through member savings groups and lobbied for investment in basic services. The upgrading process will involve a number of thematic consortiums covering water, sanitation and energy; finance; land and institutional arrangements; health services; education, youth and culture; environment and natural resources; housing, infrastructure and commerce; and community organization, coordination and communication.

Source: https://wrirosscities.org/sites/default/files/WRR_Case-Study_Kampala_final.pdf; https://www.iied.org/special-approach-slum-upgrading-special-planning-area-mukuru-nairobi.

Box 10

eThekwini poverty package

The South African city of eThekwini¹⁴⁶ has a comprehensive package of measures for poor and vulnerable people, including indigenous communities (SDGs 1, 6, 10, 11). With regard to basic services, rates are not levied on properties under a certain amount, with preferential treatment for pensioners and social grant recipients; and the use of water, sanitation, electricity and waste is free up to specific limits.

With respect to housing, a new programme will deliver over 150,000 housing units to poor people free of charge over a tenyear period. To improve the quality of life in informal settlements and transit camps, short-term emergency/interim services have been provided in the form of washing blocks, refuse removal, storm water ditching, fire breaks, etc. In addition, innovative new housing forms and urban design solutions are being implemented with the aim of promoting densification, social cohesion, and a more sustainable urban form.

 $\label{eq:source:http://www.durban.gov.za/City_Services/Community_Participation/Pages/Poverty-Alleviation-Programme.aspx.$

migrant social integration and facilitating access to housing, jobs, education and health. However, the increase in migrant numbers is not specific to metropolitan areas but also applies to smaller cities, migrant diversity.¹⁵² Chengdu has fostered a platform for internal migrants to express their concerns at the community level, including about public resource allocation.¹⁵³ The greater Amman municipality is developing policies to reduce socio-cultural tensions and spatial segregation between host and refugee communities living in the the Badr Nazzai district in the south of the city.¹⁵⁴

In order to promote social inclusion, combat poverty and foster employment, metropolitan areas also need to deal with security matters (SDG 11.7), particularly in Latin America but also in South Africa and in the United States. According to the annual report on the 50 most dangerous cities, 43 of them are found in Latin America, four in the United States and three in South Africa.¹⁵⁵ In Africa, civil unrest, political instability and terrorism are a source of concern in metropolises such as Addis Ababa, Johannesburg and Nairobi,156 while in Latin America insecurity revolves around drug trafficking related crimes, youth gangs and institutionalized violence amongst other things.¹⁵⁷ In order to combat insecurity, many cities have successfully developed strategies through participatory approaches (e.g. Medellin and Seoul), targeting troubled neighbourhoods, involving communities, schools, the police and district sectors, and securing public spaces through policies for vulnerable groups such as youth, women and the elderly.¹⁵⁸

Since the CEDAW agreements (1979) and the Convention of Belém do Pará (1994), global agendas have ratified the need to monitor,

Box 11

The Goes neighbourhood in Montevideo

Once a deprived neighbourhood in Montevideo, Goes has undergone comprehensive socio-urban revitalization, transforming it into a welcoming, cohesive and touristic place. The integral regeneration of the neighbourhood has brought with it new public open spaces, greater housing choice, increased social integration and new economic opportunities. At the outset, participative processes were employed that allowed for the creation of a new governance model that underlines the role of local identity and the joint management of public facilities between the council and the community, such as the *Centro Cultural* Terminal Goes.

 ${\tt Source: http://culturalgoes.montevideo.gub.uy/centro-cultural-terminal-goes/gestion.}$

prevent and punish violence against women, treating it as a public issue that erodes female autonomy.¹⁵⁹ Women's bodies are the starting point for domination and subjugation, which is then replicated at home, in the street, neighbourhoods, municipalities and the in metropolitan area as a whole. Besides robberies, assaults and the illegitimate use of force by criminals, women are exposed to attacks, verbal harassment, sexual harassment and abuse, rape and even murder, simply because of being women. While this violence is often confined to their homes, it also occurs in the public space: squares, parks, in the street and on public transport. Women are even more vulnerable, then, if the city and the territory are not planned in a way that acknowledges these challenges and uses public spaces and infrastructure to combat this phenomenon. Women today are admittedly more afraid to travel around the city than men: this fear curbs their freedom, limits their rightful enjoyment and ownership of public spaces and public life, and hinders their development as workers, citizens and active participants, able to benefit from all the opportunities provided by the metropolitan environment.¹⁶⁰

Many actions have flourished in the world's metropolitan areas to reduce violence against women, protect their rights and empower them to participate in public life. Mainstreaming a gender-specific approach in public policies and actions is paramount to achieving equal rights. In this respect, actions have been implemented in the field of urban spaces (e.g. New Delhi's free SafetiPin app with interactive maps of places where women feel unsafe, including an alarm service — now also available in Bangalore, Bogotá and Jakarta amongst other cities);¹⁶¹ public transportation (Quito's 'Down with Harassment' project to stop harassment on public transport, implemented thanks to the UN Women's Global Flagship Initiative Safe Cities and Safe Public Spaces,¹⁶² and Toronto's buses stopping at the request of women between 9pm and 5am to shorten walking distance);¹⁶³ and awareness raising (more than 100 youth agents of change in Cairo are leading transformative activities in schools and other settings to promote respectful gender relationships, gender equality, and safety in public spaces, and similar actions have been implemented in Seoul, Montreal and Barcelona).¹⁶⁴

Metropolitan areas should also take into account other **vulnerable groups** such as disabled people, who account for 15% of the world's population. Big cities are amongst the most difficult to navigate for the blind, deaf and physically disabled, and there are rising levels of mental illness.¹⁶⁵ Metropolises are implementing a range of policies to foster their inclusion, for example micro gardening in Dakar for vulnerable people including the disabled, women, the elderly, youth and children,¹⁶⁶ or



involving them in participative and inclusive strategic planning, for example, as part of the Guadalajara Future Metropolitan Development Programme.¹⁶⁷ As the metropolitan population ages (57% of people aged 60 years and older are urban and the total number of people over 60 is set to double by 2050),¹⁶⁸ taking into account the elderly has become crucial for developing balanced, sustainable policies that tackle, amongst other things, the incidence of elderly poverty, working in low-wage work (as in Singapore),169 the feeling of loneliness (35% of people over 75 in Stockholm feel this),¹⁷⁰ adaptation of housing and public spaces, and reform of the health and care system including the gap between public and private. Metropolitan areas are responding to these challenges by bringing older people and students together through cohabitation schemes (Milan);¹⁷¹ fostering volunteering programmes, offering older job seekers access to health, skills and employability support, promoting extra care apartments for older people alongside a library and health services, teaching digital skills in an informal environment (Greater Manchester),172 and campaigning to change people's perceptions of older people in order to reduce prejudice and discrimination (Guadalajara).¹⁷³ In this sense, promoting people's values, a sense of identity and accessible culture (not just the heritage

dimension but also creativity, diversity and cultural participation in the broadest sense of SDG 11.4)¹⁷⁴ will be key to re-humanizing metropolitan areas and making them more resilient, inclusive and participative.

Incorporating the 2030 Agenda into policies and practices and using it to tackle the challenges discussed above will highlight how different metropolitan areas can contribute to sustainable development and unlock their full potential by implementing innovative and efficient solutions. However, institutional fragmentation in many metropolitan areas is a major obstacle to citizens accessing their full rights and to the universalization of basic services (transport, housing, water, sanitation, etc.), particularly for women and the most vulnerable groups (the poor, youth, disabled people, the elderly and migrants) and those who live on the periphery, whether territorial or social. There is still much to be done to create legal and institutional enabling environments, as well as new governance mechanisms, that allow for the growth of high quality metropolitan public policies. \odot

Mural art for the second edition of the Wall Art Festival in Grigny, a city part of the Greater Paris metropolitan area (photo: © Amanda Fléty Martínez).

4. Conclusions

This chapter — and previous chapters — has shown that metropolitan cities have been among the most active actors to integrate the 2030 Agenda and other related agendas into their development strategies, plans and policies. Frontrunner cities have deployed integrated development strategies as well as highly innovative solutions to address their most pressing problems. Managing the policymaking process at metropolitan level through integrated and inclusive approaches, ensuring adequate coordination between the different spheres of government and involving citizens as well as metropolitan stakeholders are all needed to implement the 2030 Agenda in an effective manner, in addition to ensuring transparency and accountability in order to bring public policies closer to citizens, especially the most vulnerable. In this regard, the metropolitan model is critical. This is a strategy that has clearly been adopted by some metropolitan areas and which, ideally, should be followed by others.

Globally, metropolitan areas are recognized as engines of growth, functioning as drivers of national and even international economies, investment and competitiveness. leading However, metropolitan areas are also the source of major contradictions: rising level of wealth coupled with problems of exclusion; economic growth but with precarious labour conditions and extended informalization in the cities of the Global South; hopes for a better quality of life but also deterioration in health as a consequence of pollution, environmental degradation and natural resource depletion. Most metropolitan cities are faced with a pressing need to foster new patterns of economic and social development to better control their growth and minimize the negative externalities created by current unsustainable patterns of development.

In July 2018, mayors from metropolitan cities from different regions who were concerned about the global housing crises that has hit major urban areas and, advocating better cities and respect of the rights to the city for all, requested at the UN more legal and fiscal powers to tackle speculation and guarantee the social function of the city; more funds to invest in public housing and neighbourhoods; the co-production with communities of alternative solutions; better planning to contribute to the social, economic and environmental sustainability of the urban fabric; and enhanced cooperation between cities to boost long-term strategies on a metropolitan scale.¹⁷⁵

At the same time metropolitan governments around the world are leading the fight against climate change strengthening the resiliency of cities as demonstrated by major cities in the Global Climate Action Summit in September 2018, investing in urban de-carbonization, fostering the transition to renewable energies, greening public buildings and services, promoting circular and sharing economies, supporting innovation and better control of the use of technologies and data — all with a view to tackling challenging externalities. Key cities are claiming a major role in large fora such as the yearly COP conferences, where they are active participants. However, as highlighted by IPCC, a much greater collective effort at all levels is needed to stop climate change.

Capitalizing on the innovation and solutions provided by metropolitan areas to tackle the challenges discussed above is crucial. It will build gateways to share knowledge and experiences that help improve public policies. However, current governance models are undermining the potential of metropolitan areas to provide effective solutions to the problems they are facing. Unlocking the transformative potential of the 2030 Agenda should serve to improve the policy-making process at the metropolitan level. The following recommendations are based on the analysis of previous pages, on the Montreal Declaration on Metropolitan Areas for Habitat III (October 2015) and the key messages of GOLD IV:

Metropolitan governance systems are, in fact, being reformed and upgraded around the world. New, more inclusive governance models are indispensable for dealing with the increasing complexity of metropolitan areas. As stressed in previous pages, although there is no 'onesize-fits-all', some basic principles should be acknowledged to bolster collaborative and effective metropolitan governance: local democracy as the basis of the legitimacy of metropolitan institutions, empowered local governments (effective decentralization), multilevel cooperation based on the respect of the subsidiarity principles, enhanced genderaware participatory mechanisms, adequate resources and financing instruments. The gender perspective must also be integrated into the design, execution and evaluation of public policies. A fair metropolitan governance system should encourage polycentric and balanced development to ensure inclusion of the full metropolitan region, core and peripheral cities.

Metropolitan spaces should also take into account the impact that they may have not only on peripheral cities, but also the surrounding territories, their hinterland or territorial approaches at a larger, national level. Because of the 2030 Agenda and the New Urban Agenda, it is essential to redefine these relationships and their interdependence within a systemic territorial and urban approach.

A deep rethinking of traditional financing approaches is needed to empower metropolitan authorities in the context of widespread financialization and commodification of urban public goods and property markets. Metropolitan finances need adequate powers to mobilize local resources, receive sufficient transfers and be able to access borrowing in national and international markets to invest in major infrastructures and services and to respond to social inclusion and climate change challenges. This would make it possible for metropolitan areas to reconcile financial constraints with long-term sustainable development and counterbalance the growing wealth inequalities both between and within cities.

To better respond to the 2030 Agenda, Paris Climate Agreement and other related agendas, Metropolitan areas should strengthen their capacity to develop integrated and participatory strategic plans aligned with SDG targets that link the different dimensions of urban sustainable development to build inclusive, resilient and safer cities. Metropolitan governments should move from fragmented sector-specific decision-making to a strategic planning approach for the whole metropolitan area that takes into account the systemic tensions between inclusion, environmental policies, economic development and resilience. They should strengthen collaboration within metropolitan areas, as well as with their periurban areas and hinterlands, to build stronger synergies, relieve urbanization pressures and reduce environmental impacts.

As requested by the New Urban Agenda, inclusive urban planning should pursue universal access to basic services and adequate housing, compactness, multi-functionality and sociallymixed neighbourhoods with a good quality of life, shorter travelling distances and improved public transport, accessible and safer public spaces, fairer access to basic services and infrastructures, and cultural amenities for all. In developing countries, informal settlements must be recognized and integrated into the urban fabric, with adequate policies for land tenure recognition and slum upgrading. Cultural policies (including the protection of heritage, diversity and creativity) also act as a lever for flourishing metropolitan areas.

The achievement of the global agendas needs stronger partnerships for the co-production of the city. To enhance and empower citizen participation, metropolitan leaders should combine the support of a well-organized civil society with autonomous spaces and diversified mechanisms to participate in local decisionmaking, acknowledging the protection of human rights as defined by the UN — the right to access basic services, gender equality, adequate shelter and secure tenure, social protection, respect for migrants, refugees, minorities, communities safe from violence, and defence of digital rights — and putting the principles of the 'Right to the city' at the heart of the urban agenda.

To strengthen the capacity of co-production through participative planning, reporting and monitoring, local governments should **strengthen metropolitan systems to gather and process data with indicators aligned to those of the SDGs**. Different levels of government, as well as universities, knowledge centres, CSOs and the private sector should all contribute to this effort.

Despite the importance of their role and the challenges they face, metropolitan areas enjoy limited political recognition. The metropolitan dimension appears diluted or alluded to only briefly in most of the global agendas i.e. the New Urban Agenda, the Paris Climate Agreement and the Addis Ababa Action Plan. The 2030 Agenda could serve as leverage, allowing the environment in which metropolitan areas operate to foster the metropolitan dimension of the different political agendas. Metropolitan leaders must redouble their efforts to engage on the global stage, particularly in the reporting process to the UN through the Voluntary National Reviews and, where possible, develop Voluntary Local Reviews to make their voices heard. They need to enhance cooperation and promote knowledgesharing between themselves and with networks of peripheral cities in order to foster innovation and encourage positive action.

The current patterns of development embedded in our aspiration for continuous growth are responsible for some of the most critical challenges faced by metropolitan cities worldwide. Many metropolitan cities lack the resources and the full competences to address the very complex challenges they face. Beyond the current ad hoc innovative and effective solutions that cities are developing to respond to these challenges, the transition towards a more sustainable development model will require redefining the prevailing economic and social patterns of development so that they are compatible with the limits of our planet. Metropolitan cities should lead a global dialogue to rethink these patterns of development and establish shared action plans with concrete measures to move towards a more sustainable and inclusive development that aligns with the 2030 Agenda. 💿