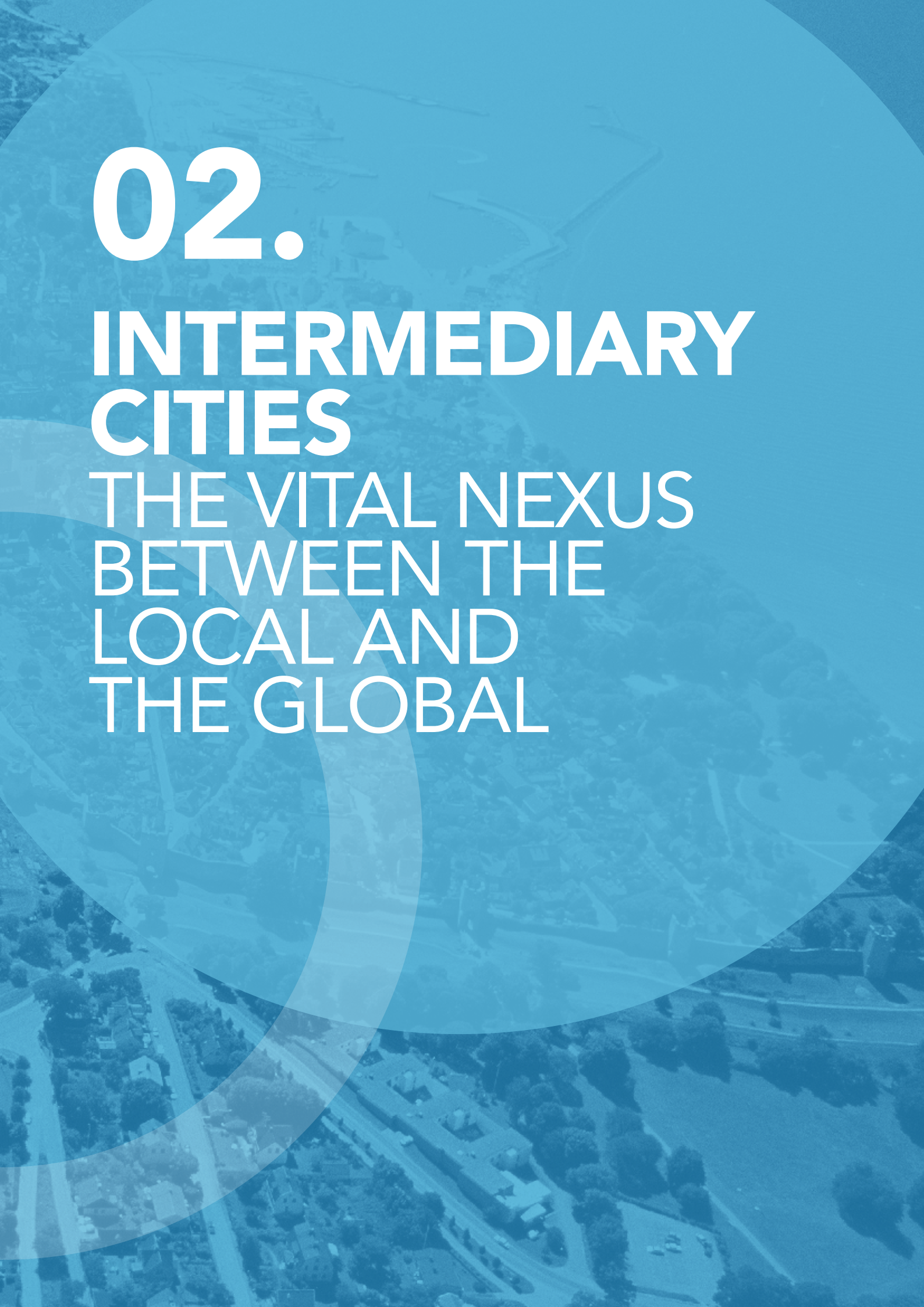
02.

INTERMEDIARY CITIES

THE VITAL NEXUS BETWEEN THE LOCAL AND THE GLOBAL



1. INTRODUCTION

Over the past few decades, intermediary cities (i-cities) have contributed significantly to the territorial cohesion and integration of their respective regions and countries as regional centres as well as providers of administrative and social services, conventionally linked to local economic activities. These cities play a critical role for the achievement of an 'inclusive, safe, and resilient' urbanism (Goal 11 of the Sustainable Development Goals - SDGs), by strengthening rural-urban ties, promoting more balanced urban systems or providing opportunities for 'human-scale' development and improving the quality of life of their citizens. **Despite their demographic and territorial relevance within their national urban systems, many i-cities are still neglected in development agendas**. They face the challenge of adjusting their own needs and expectations to a global urbanization process that is making urban systems more diverse and complex and increasingly polarized around large agglomerations.

This chapter addresses the issues, concerns and opportunities that affect the development of i-cities, as an essential part of national and global systems of cities.[1] I-cities today are home to 20% of the world's population and one third of the total urban population, and play a major role in migration, administrative, economic and logistics processes. They link the population living in rural areas and small towns to the larger networks of primary and metropolitan cities. In developed economies, particularly in Europe and Northern America, the situation of i-cities varies: while many face economic uncertainty, others have grown into dynamic actors in the new global economy. In many developing economies, on the other hand, i-cities are growing at different paces, and experiencing significant development pressures from urbanization. Until very recently, however, these i-cities had not received much attention in international comparative analyses.[2] In certain regions, i-cities have long been seen as the weakest link in urban systems, and particularly vulnerable in the transformations of global economy and the ongoing process of urbanization.

Faced with a scenario of territorial imbalance and social, economic and environmental uncertainty, governments and the international community now have a historic opportunity to put their i-cities at the core of their policy agendas and regional and national development strategies. If a majority of countries do not swiftly commit to undertake this challenge, it could compromise the prospects of a significant part of the world's urban population, whose empowerment is so important in the creation of the 'New Urban Agenda', and the achievement of the SDGs.

This introduction provides the key definitions necessary for a thorough analysis of the phenomenon of i-cities, and their place in the broader picture of urbanization in an increasingly globalized and complex world. Section 2 investigates in detail **the concept of intermediary cities through analysis of their main facets**. This includes: their scale, functions, location and connectivity; the distinctive governance and financial architecture they have developed to preserve their role in national urban systems; the role of urban planning and design to promote and protect their sustainability; the specific role they play in local economic development, with a focus on the rural-urban linkages they help foster; and the potential benefits they can reap from investment in identity, technology and equality.

Section 3 examines **i-cities in the different regional contexts across the world**. Finally, Section 4 concludes this chapter with a series of **recommendations and key messages for i-cities,** and how they can actively contribute to today's global development and urban agendas, with a special focus on the afore-mentioned New Urban Agenda.

Governments and the international community now have a historic opportunity to put their i-cities at the core of their policy agendas and regional and national development strategies

1.1 DEFINITION OF INTERMEDIARY CITIES

What constitutes an intermediary city? This is a difficult question to answer, since the terms that describe and classify these cities are still widely debated. Originally incorporated within the definition of secondary[3] or mid-sized cities,[4] the concept has further developed into that of intermediary city,[5] 'satellite towns',[6] 'second-tier city'[7] and, again, 'secondary city'.[8] The terms intermediary, mid-sized and secondary cities are often used interchangeably in the literature. This gives rise to confusion about the way cities are classified in national and global contexts. Intermediary and secondary cities have different roles, functions and scale even though, in certain circumstances, these concepts can overlap.

Intermediary cities are cities with a population of between 50,000 and one million people that generally play a primary role in connecting important rural and urban areas to basic facilities and services

This report builds on the definition of i-cities developed by UCLG, a synthesis of different definitions that can be applied to different contexts and regions. Accordingly, intermediary cities are cities with a population of between 50,000 and one million people that generally play a primary role in connecting important rural and urban areas to basic facilities and services. This definition overcomes static and traditional definitions that are based on a hierarchical urban-system approach, adopting a more open, dynamic, as well as interactive concept.[9] This definition, should, moreover, be considered as flexible so as to be equally applicable to i-cities in Asia – where some cities with more than one million inhabitants can be functionally regarded as intermediary – as in Europe, where even some cities with as few as 20,000 inhabitants play intermediary roles. The proposed definition, however, is close to the one adopted during the Thematic Habitat III Conference on 'Intermediate Cities' held in Cuenca (Ecuador), on 9 -11 November 2015.[10] According to this definition, there are nearly 9,000 i-cities in the world, and they are home to around 1.4 billion people (36% of the world's urban population).[11]

I-cities generally fall into one of three broad types:[12]

- **Regional i-cities** that act as sub-national urban centres of administration, manufacturing, agriculture, trade or social and cultural services, and that combine resources for regional development and cohesion;
- **Clustered i-cities** that develop as industrial districts on the periphery of metropolitan or large urban regions, or take the form of new towns, 'spill-over' growth centres, and/or linear cities;[13]
- **Corridor i-cities** that develop as growth poles along major transportation corridors, sometimes expanding across borders and countries.

These three types of i-city play a vital role in wider national and transnational systems of cities. In some cases, their roles and functions may expand across a whole geographic region, or even globally, as primary hubs of business, services, knowledge or cultural activity.[14] There are other ways of segmenting i-cities, some of which will be analyzed in this chapter (by size, for instance, small, medium or large i-cities; or by geographic location, coastal, inland or landlocked i-cities).

I-cities also play a unique role in providing essential services to both urban and rural populations. They act as regional market centres or hubs for smaller cities, with predominantly rural resource-based/specialized manufacturing industries. They connect traders and producers with customers and markets in larger metropolitan areas. They may also be providers of government services, education and knowledge resources, as well as of access to a variety of social and specialized services that need not be exclusively local or regional. Many i-cities have gained recognition as global hubs in key aspects of governance, logistics, trade, tourism, technology and social services – not to mention their increasingly central role in adaptation and mitigation strategies against climate change effects or the protection of the biodiversity of their hinterlands.

Table 1.1 presents data on the evolution of i-cities in global and regional contexts. Firstly, it can be observed that i-cities' populations are projected to increase by more than 434 million people between 2015 and 2030. This growth rate is similar to that of metropolises with a population of between one and ten million people (408 million new inhabitants), and almost double the growth rate of 'megacities' (258 million new inhabitants). The highest pace of growth for i-cities is set to be recorded in Sub-Saharan Africa and Asia, and especially in cities of 300,000 or fewer inhabitants (208 million

new dwellers, if including cities of fewer than 50,000 inhabitants too). I-cities with a population of between 500,000 and one million inhabitants are expected to grow by a total 138 million (91 million in Sub-Saharan Africa and Asia). Meanwhile, the group of mid-sized i-cities (between 300,000 and 500,000 inhabitants) will see their population grow by 57 million (45 million of which are in Sub-Saharan Africa and Asia). Europe and Northern America, on the other hand, will see the highest increases in cities with a population of between 300,000 and one million people (15.6 million people).

Table 1.1 **Population estimates by city size and regions, 2015, 2030 (millions)**
Source: UN-DESA, 2015

GLOBAL REGIONS	METROPOLITAN AREAS						INTERMEDIARY AND SMALL CITIES					
	>10 million		5 to 10 million		1 to 5 million		500,000 to 1 million		300,000 to 500,000		< 300,000	
	2015	2030	2015	2030	2015	2030	2015	2030	2015	2030	2015	2030
WORLD	471	730	307	434	847	1,130	371	509	262	319	1,700	1,940
Less developed regions	349	604	238	342	649	907	281	408	190	241	1,270	1,500
Africa	43	101	25	74	106	160	40	83	34	42	223	309
Sub-Saharan Africa	25	77	20	60	88	139	31	67	26	34	169	244
Asia	293	457	196	258	429	595	202	283	126	160	867	1,000
Europe	33	35	11	12	84	96	59	61	43	46	316	316
Latin America and the Caribbean	70	103	32	25	125	163	40	44	32	41	204	220
Northern America	31	33	43	54	88	105	29	38	24	26	80	83
Oceania				10	15	8	0.58	2	2	3	10	11

N.B. In this source's database, cities with fewer than 300,000 inhabitants also include cities of 50,000 inhabitants or fewer. In a similar table in this report's introduction, however, data for cities with fewer than 50,000 inhabitants are analyzed separately and only for 2015.

1.2
THE IMPERATIVE TO FOCUS ON I-CITIES

For the past few years, interest in the status and trajectory of intermediary cities has been growing. This has been driven mostly by the concern – both in the academic community and at the governmental level – that the role and importance of i-cities in the development of efficient national systems for cities is not fully understood. It is believed that the potential of i-cities to add value to economies and sustainable development is, therefore, being stifled. Improving the functions and efficiencies of i-cities could lift the performance of national economies: i-cities can act as buffers for rural-to-urban migration and alleviate similar pressures on metro regions, as well as help reduce rising inter-regional inequality in many countries.

There is inadequate understanding of the way in which i-cities fit within national, regional and global systems of trade, investment and development, partially due to a scarcity of information, and this weakens their position in the national economy. This gives rise to a number of strategic questions:

- What kind of strategic infrastructure or enabling environments should i-cities develop to play a more active and diverse role in the development of sub-national regions?

- How can local governments work with business communities and civil society to create enabling environments that encourage investment, foster inclusive development, and generate new opportunities for their inhabitants?
- How could systems of local and regional governance work more effectively, access better information and knowledge, and promote wider community engagement in local decision-making processes?

It is a critical task for governments to better understand the functions of i-cities and how they relate to and interact with larger cities, small towns and regional governments. Their economic and physical development is increasingly shaped by external factors, such as rural-urban migration, structural changes to national economies, increasingly global markets, and rapid changes in technology, energy use and productive processes – which some have already dubbed the 'Third[15] or Fourth Industrial Revolution'.[16] These factors collectively present unprecedented challenges to the future ability of i-cities to maintain their identity and reach their full potential. Surmounting these challenges will be instrumental to the achievement of the SDGs and other related global agendas (on climate change, the Sendai Framework for Disaster Risk Reduction, the Addis Ababa Action Agenda). Most of these goals, ultimately, are inextricably linked to responsibilities and challenges of intermediary cities, as the rest of the chapter demonstrates.

Photo: Natalia Cartolini - Cuenca (Ecuador).

2.

THE PROFILE AND DYNAMICS OF INTERMEDIARY CITIES

The economic, social and cultural relations elicited by urban proximity and human scale are a source of potential competitive advantage to i-cities – even in a rapidly changing and increasingly globalized and connected world.

The quality of life of a city can be measured by its citizens' satisfaction with the economic, social, cultural, environmental and/or institutional factors affecting their daily lives. Proximity to services is one of the indicators that characterizes i-cities the most.[17] Using international measurements of quality of life, i-cities such as Göteborg (Sweden), Trondheim (Norway), Winnipeg (Canada), and Aberdeen (United Kingdom) manage to compete with large global metropolises.[18] Aalborg (Denmark) boasts a 99% level of satisfaction among its citizens.[19] Many i-cities have likewise grown to be leaders in innovation. These include Raleigh-Durham (United States), Leipzig and Karlsruhe (Germany), Bilbao (Spain), Edinburgh and Bristol (United Kingdom), and Toulouse (France), among others.[20]

Many i-cities share these strong qualities and characteristics, taking advantage of proximity and scale and successfully overcoming disasters, risks and challenges. But not all i-cities are as effective. Many regions have experienced a surge in inequality between large, intermediary and small cities and it is not uncommon for i-cities to experience lower levels of employment, health and wages compared with national averages.

This poses a paradox: why are some i-cities able to optimize their role in the wider urban system, while others fall behind, struggling to create decent jobs, attract investment and ensure sustainable development and better lives for their citizens?

The answer to this question is vital to a better understanding of i-cities and their role within their respective national systems. This will be essential if i-cities are to advocate and fight for an improved quality of life for their citizens, and build governance systems that are accountable, resilient and sensitive to the dynamics of change at the local and global levels.

This section highlights those key elements that distinguish i-cities. It does so by analysing the dynamics of change; their governance frameworks and funding mechanisms; their role in planning and shaping territorial and spatial development; as well as their competitive advantage in fostering local economic development.

A relative advantage of i-cities – and smaller ones in particular – over larger cities is their human scale, a fact that has generally been neglected in development agendas

2.1 THE DYNAMICS OF CHANGE

The way i-cities function and develop is influenced by a number of factors, policies and events, many of which are beyond the control of cities and governments. Structural economic change can be particularly challenging for i-cities – especially those that are dominated by a single industry. I-cities often have a narrow economic base and may be more vulnerable to the dynamic of change that are driven externally. Adverse economic or social conditions force intermediary and smaller

cities to move faster when implementing change or encouraging innovation.[21]

Political dynamics also influence the management of i-cities. A relative advantage of i-cities – and smaller ones in particular – over larger cities is their human scale, a fact that has generally been neglected in development agendas. Human scale has a crucial impact on the ability of local governments to implement policies more efficiently,[22] provided there is strong and accountable local leadership. I-cities need to focus on the priorities that will improve governance, mobilize local communities and develop their human and social capital. Many i-cities also need to understand the strategic value of inclusiveness, preserving their identity, and mobilizing their cultural and environmental assets.

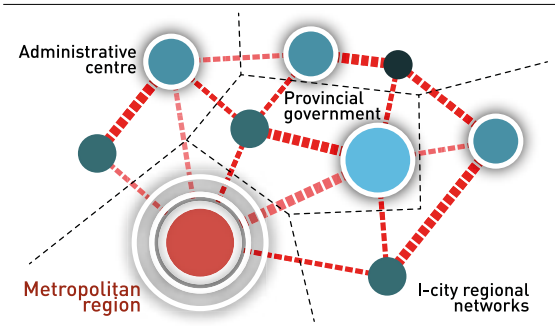
Human scale and proximity are key elements for the development of i-cities, but other variables, such as location and functions within regional and global networks, are also becoming critical. Several of these variables – structure, size, form and function, demographic trends and economies of scale – are analyzed in detail in this section.

2.1.1 Structure: size, form and function

The dynamics of globalization and migration mean that i-cities are in a constant state of flux. Twenty-six percent of the whole i-city population live in larger i-cities of between 500,000 and one million inhabitants, and many of these may eventually gain characteristics typically associated with metropolitan agglomerations. Meanwhile, more than half (54%) live in medium-sized i-cities (between 100,000 and 500,000 people), and the remaining 20% live in smaller i-cities, with a population of between 50,000 and 100,000. Section 3 of this chapter evaluates this data in detail for each world region and their respective countries.

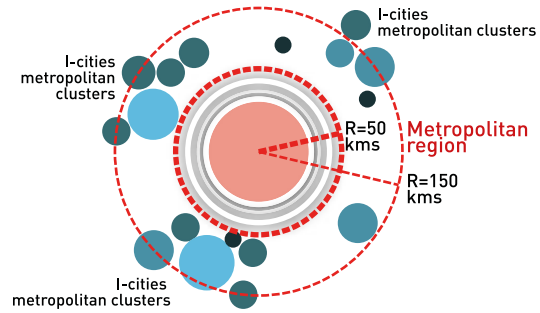
One of the impacts of globalization is the immersion of cities in functional networks rather than strict hierarchies based exclusively on city size or government system. **I-cities exhibit huge variations in size, function, geographic location and the roles they play within wider networks**. The different typologies of i-cities – nodes, clusters and corridors – are described in Figure 2.1.

Figure 2.1 **Typologies of intermediary cities**



Historical regional nodes
These are i-cities that play a key role, either as centres of government in provinces, departments or regions; or having been historically relevant industrial poles or economic centres. I-cities of this kind perform a broad range of functions: administrative centres; agriculture, agro-industrial and extractive industries; tourism; and knowledge economy.

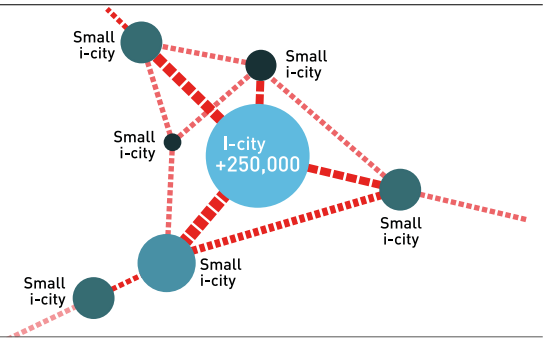
I-CITY CLUSTERS



Metropolitan clusters
These are i-cities beyond the peripheral zone of metropolitan areas and regions, generally with commuting times of over 90 minutes. Most of these i-cities provide, nonetheless, a broad range of services, food-processing and assembly manufacturing industries. Most range in size from 150,000 to 250,000 inhabitants.

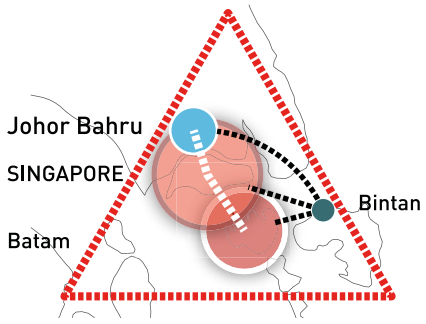
Regional clusters

These clusters are agglomerations of i-cities defined as 'forms of territorial aggregation between companies operating in the same sector or branch'. This group is usually modelled on the example of furniture, footwear and clothing small and medium-sized enterprises (SMEs) that peaked economically in northern and central Italy during the 1990s. These clusters tend to have a long history in manufacturing specialized goods and services.



Cross-border clusters

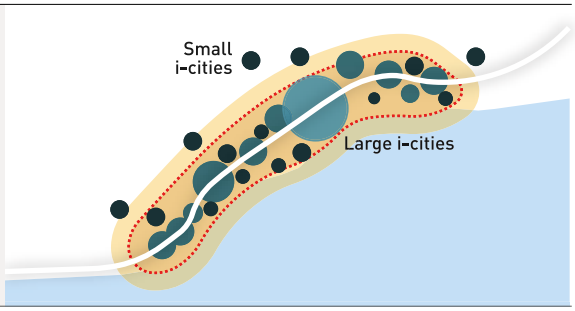
These clusters form when adjacent cities, although located in different countries, create a contiguous sphere of economic influence. They usually have a high level of specialization, due to the concentration of firms that manufacture products or provide services as a whole within an integrated cross-border supply chain. The Singapore/ Johor Bahru/Batam-Bintan growth triangle is one of the most dynamic examples of this type of cluster.



I-CITY CORRIDORS

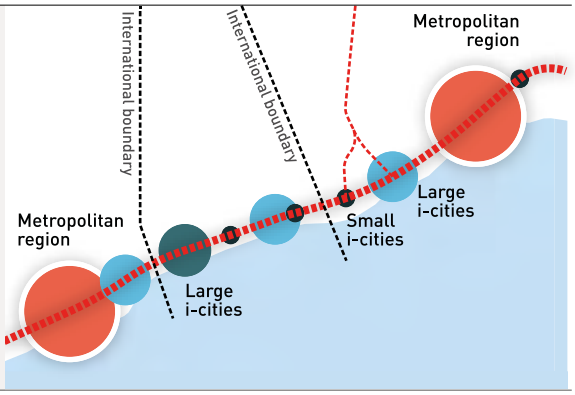
National corridors

These are networks of large towns and smaller i-cities that have become connected along inland and/or coastal national networks, taking the form of a linear agglomeration up to 50km or more in length. This type of corridor has been widespread in coastal regions of Southern Europe and Northern America, but is now emerging in similar contexts in many countries of the Global South.



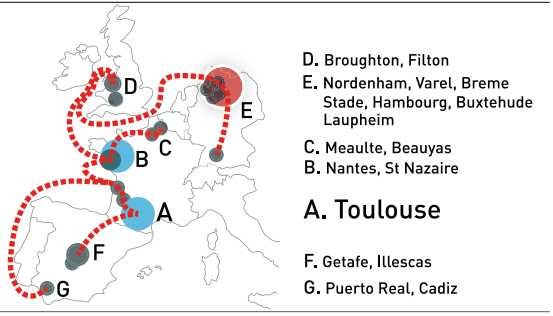
International corridors

International corridors are networked systems of i-cities that form economic integration and cross-border trade corridors and axes between two or more countries. This type of corridor tends to take advantage of main transport infrastructures across continents and large navigable waterways. They concentrate specialized functions in supply-chain logistical centres. International corridors are common phenomena in Europe, and are increasingly frequent in the most dynamic areas of Africa, Latin America and Asia.



International networks

These are intermediate cities that play a key role as either centres of government in provinces, departments or regions, or have historically been relevant industrial poles or the centres of enclave economies. I-cities of this kind perform a broad range of functions: administrative centres; agriculture, agro-industrial and extractive industries; tourism; and knowledge economy.



Intermediary cities tend to evolve in **coastal**, **inland** and **landlocked contexts**. Geographic location has a significant impact on functional specialization. Around 40% of the urban population in i-cities live in 'coastal strips' of 100-150km, which creates strong 'path dependencies' for their urban development process. The remaining 60% live in either/both inland and/or landlocked i-cities. Local development in these cities is inevitably intertwined with the improvement of local connectivity and relations with surrounding areas – a pre-condition for any form of access to regional and global markets.

I-cities play an increasingly influential role in the economic integration and territorial cohesion of their countries, because of their potential to generate development opportunities, not only for their urban residents but also for the rural population living within their sphere of influence. This has been very apparent in Europe, where polycentric urban systems are common, with many i-cities interconnected to a small number of metropolises, each one fulfilling specific complementary functions and contributing, in its own way, to mutual cooperation and integration.[23] It is essential, accordingly, that national policies recognize the specificities and typologies of i-cities, acknowledging their contribution to regional development, while fostering a more balanced urban system.

2.1.2 Urban and demographic transitions

A significant proportion of the world's i-cities face the complex challenge of making socio-economic progress and sustainable development compatible, against a backdrop of often unpredictable urban and demographic transition.

Urban expansion does not necessarily coincide with population growth. In many advanced economies, for instance, the urban footprint of many i-cities has expanded, irrespective of natural growth rates that were often either static or even declining. While in developing countries, many i-cities have recorded a surge in population growth – thanks mostly to the overall reduction of mortality rates, steadily growing fertility and birth levels, and intensified rural-to-urban migration flows – they have also expanded their urban agglomeration through unprecedented peri-urbanization processes.

Table 2.1 **Rates of annual growth of population in cities, according to their size, for the periods 2000-2015 and 2015-2030 (%)**

Source: UN–DESA, World Urban Prospects, 2014, F17d, Population in cities classified by size class of urban settlements, major area, region and country 1950-2030

GLOBAL REGIONS	METROPOLITAN AREAS						INTERMEDIARY AND SMALL CITIES					
	>10 million		5 to 10 million		1 to 5 million		500,000 to 1 million		300,000 to 500,000		< 300,000	
	2000-2015	2015-2030	2000-2015	2015-2030	2000-2015	2015-2030	2000-2015	2015-2030	2000-2015	2015-2030	2000-2015	2015-2030
WORLD	4.18	2.96	2.57	2.34	2.32	1.93	2.36	2.14	2.15	1.33	1.60	0.88
Less developed regions	5.23	3.73	2.73	2.45	3.09	2.25	2.92	2.52	2.76	1.58	2.07	1.16
Africa		7.87	0.34	7.57	4.56	3.13	3.14	5.19	5.38	1.75	3.50	2.47
Sub-Saharan Africa	8.04	5.81	1.88	7.49	3.69	2.79	3.30	5.05	4.61	1.38	3.02	2.20
Asia	4.92	3.00	2.53	1.85	3.10	2.20	3.41	2.26	1.91	1.62	2.18	0.96
Europe	8.35	0.42	-4.64	0.52	0.06	0.92	0.98	0.19	-0.14	0.47	0.24	-0.01
Latin America and the Caribbean	1.14	2.57	3.40	-1.64	2.47	1.80	0.65	0.54	4.35	1.63	0.91	0.52
Northern America	0.28	0.47	7.98	1.64	0.25	1.19	0.46	1.70	3.13	0.64	0.08	0.25
Oceania				0.00	1.22	-4.16	0.00	7.94	1.73	1.46	1.73	0.63

Table 2.1 shows an approximation to the population growth rate of cities according to their size, with a comparison between the periods 2000-2015 and 2015-2030. The population of i-cities between 500,000 and one million inhabitants is expected to keep growing at an average rate of 2.14%. Annual growth rates of population in cities with fewer than 500,000 inhabitants, however, are likely to drop from 1.33% to 0.88%. Population growth rates in megacities, the fastest growing typology until 2015, are projected to slow down to a rate of 2.96% over the next 15 years. Even though a general drop in growth rates is foreseen across all types of i-city, this decline will vary by region. The population growth rate in Sub-Saharan African cities, for instance, will increase significantly in large metropolises of more than 5 million inhabitants (a 7.57% increase between 2015 and 2030). Meanwhile, the population of i-cities of 500,000 inhabitants or more which will experience a 5.19% surge over the next 15 years, and smaller i-cities of 300,000 inhabitants or fewer will see a 2.47% increase. However, this table should be viewed with caution as for many countries, data have a high level of uncertainty. It also does not account for the population of intermediate cities that jump from one category to another (e.g. those i-cities that have exceeded the threshold of 1 million people and will no longer be considered i-cities in 2030).

In the urban and demographic transition of many developing countries, rural-to-urban migration has had a decisive impact. The exact effect of migration in many countries of Sub-Saharan Africa and South-eastern Asia, however, has proven hard to assess, mostly because of obsolete census information that has historically failed to take account of the floating population (people that move from rural to urban areas, and vice versa, on a seasonal or semi-permanent basis). In Sub-Saharan Africa, for instance, the world region with by far the highest urban population growth rate (4% a year), rural migration accounts for a third of this growth, but i-cities do not necessarily retain this new population. Data show that many i-cities, especially smaller ones, have been absorbing significant flows of rural migration – even though these inflows have been consistently compensated by outflows either back to rural areas or towards larger cities. The contribution of migration was considerably higher in Asia during the same period and is expected to continue growing, albeit at a slower pace.[25] A common issue for many i-cities – e.g. in the Philippines, China, India, Mexico, and most of Europe - is the out-migration of younger populations to larger cities in search of jobs, education and other opportunities, leading to imbalances in the remaining population.[26]

Since the 1980s, urban transition globally has been led by China. There, urban policies have targeted the competitiveness of provincial urban systems and at the same time attempted to reform the household registration system of *hukou* which had been designed to curb migratory pressures on its main metropolises.[27] China actually concentrates 41% of its total urban population in i-cities (2015), which have contributed substantially to the development of what is today the world's second largest economy. Similarly, Africa has the same population concentrated in 1,086 i-cities as in 56 metropolises, and, in certain contexts – such as Mozambique, Algeria, Morocco, Sudan, Tunisia or Nigeria – i-cities have been predominant in the urban landscape and essential to the economic specialization of the territory.

On the contrary, developed economies of the Eurozone, Northern America and Japan are facing exactly the opposite urban and demographic challenges of those in the Global South. Europe is currently the world region with the largest concentration of population in i-cities (41.8%), double that of its metropolitan areas. I-cities have played a major role in catalysing territorial cohesion and diversifying the national economy, during cycles of both economic growth and downturn.

Between 1990 and 2014, the population of many i-cities from 'transition economies' in Baltic countries, Central and Eastern Europe, and Central Asia, has shrunk in the face of structural changes in their political and economic organization. In the United States, Detroit is a well-known example of a 'shrinking city', as the collapse of its automotive industry saw the city lose more than half its peak population and file for bankruptcy in 2013.[28]

As mentioned in the introduction, it is anticipated that i-cities will host more than 400 million new urban dwellers in the coming 15 years, more than 90% of them in Asia and Sub-Saharan Africa, at a pace of 70,000 people per day. I-cities often play a gateway role in the migratory process towards metropolitan areas. In most cases, however, the migrating population tends to remain systematically excluded from a full right to enjoy citizenship, creating pockets of concentrated poverty and

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triggering precarious sub-urbanization and informality in all aspects of daily economic and social activities.

Intermediary cities, in this regard, have a responsibility to act as buffers in the implementation of migration policies. To do so, integrated multilevel governments have to cooperate to guarantee housing rights, access to basic services, education and decent job opportunities. As urbanization continues,[29] many i-cities will have to prepare to institutionalize planning in their development agendas, by adapting their spatial, social and economic development to an ever-changing demographic environment – guided, though, by a firm determination to anchor development to their own territory for the security and wellbeing of future generations.

2.1.3 Economies of scale and proximity

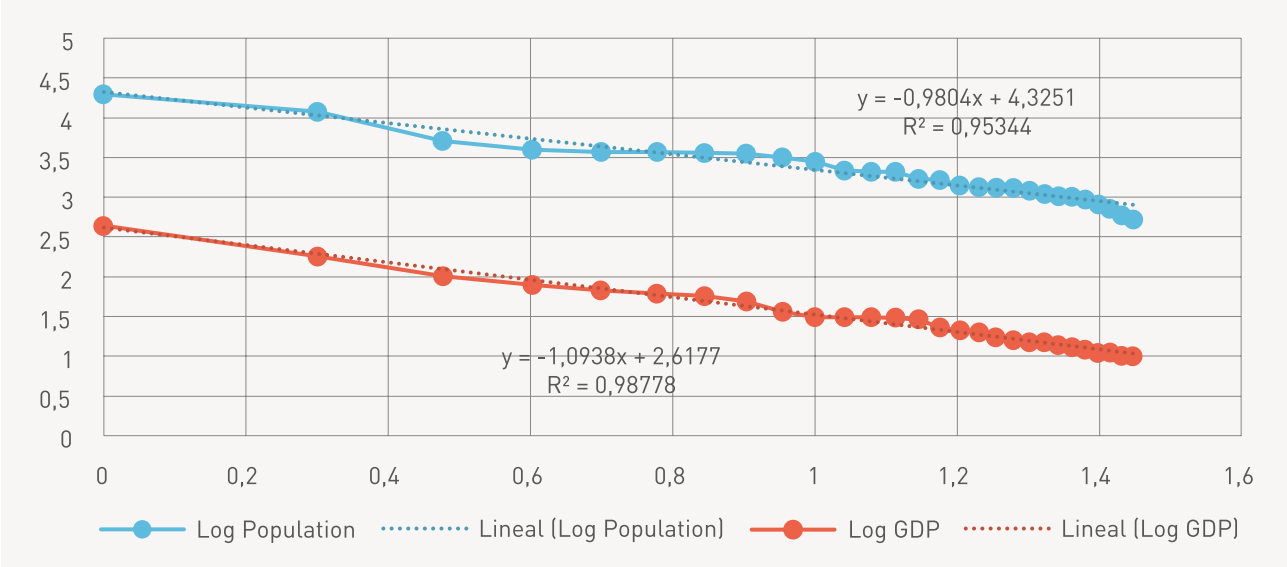
There are significant differences in GDP wealth and income between cities, and the size of a city certainly affects these indicators. Reliable data, moreover, are not easily obtainable in many countries, even less so with regard to i-cities. In many cases, the GDP and economic performance of such cities tend to be near to, or slightly below, the national medians and averages of their countries – while the opposite is normally true for metropolitan areas. In many cases, where one or two large cities dominate the national urban system, i-cities show a much-reduced range of economic activities. Normally, they depend on one dominant sector – such as agriculture, mining, raw materials manufacturing or tourism – as the economic foundations of the city. This is most prevalent in regions such as Sub-Saharan Africa and Southern Asia, where urbanization levels are still relatively low.

Comparisons between i-cities and larger cities should, however, be made with care. In more polycentric national systems of cities, the relationship between population, economic and other indicators is generally more balanced. The more polycentric the network of national systems of cities, the greater the capacity of i-cities to share their resources within these national systems. The analysis of data from Germany, the United Kingdom, and Australia shows patterns similar to the United States.

In OECD countries with polycentric systems of cities, on the other hand, there can be significant variation in the relationship between population and GDP indicators, explained by the fact that some i-cities have high levels of specialization and value-adding industries. In Europe, polycentric systems of i-cities have played a key role in the economic integration of the territory. In spite of the global financial crisis of 2008, several i-cities in Germany, Italy, Spain, Switzerland, Poland, the Netherlands and Norway have

Graph 2.1 **Log of the relationship of GDP and population by city ranking, Brazilian cities (2015)**

Source: MGI, 2014; UN-DESA, 2015



experienced higher GDP growth than that of their respective capitals. The main i-cities of Spain, the Netherlands, Sweden and Poland, for instance, account for between 50% and 80% of their respective capitals' GDPs. However, in Ireland, Denmark and Portugal, the main i-city of the national urban system only produces between 25% and 50% of the capital's GDP. These figures are even lower (10-15%) in France and the United Kingdom, mostly because of the larger economic influence of Paris and London, both truly global cities.[30]

Much of Latin America also relies on narrowly specialized i-city economies. Graph 2.1 shows the relationship between the ranking of population size and GDP for 30 Brazilian cities. As the scale of the population in i-cities declines, there is a proportional but steeper decline in GDP and GDP per capita. These differences can also be seen in other countries, where the spatial population settlement system is heavily concentrated in one or two large cities, e.g. Lima in Peru and Santiago in Chile.[31] Countries such as Ecuador and Colombia are exceptions whose i-cities show greater diversity of economic activity.

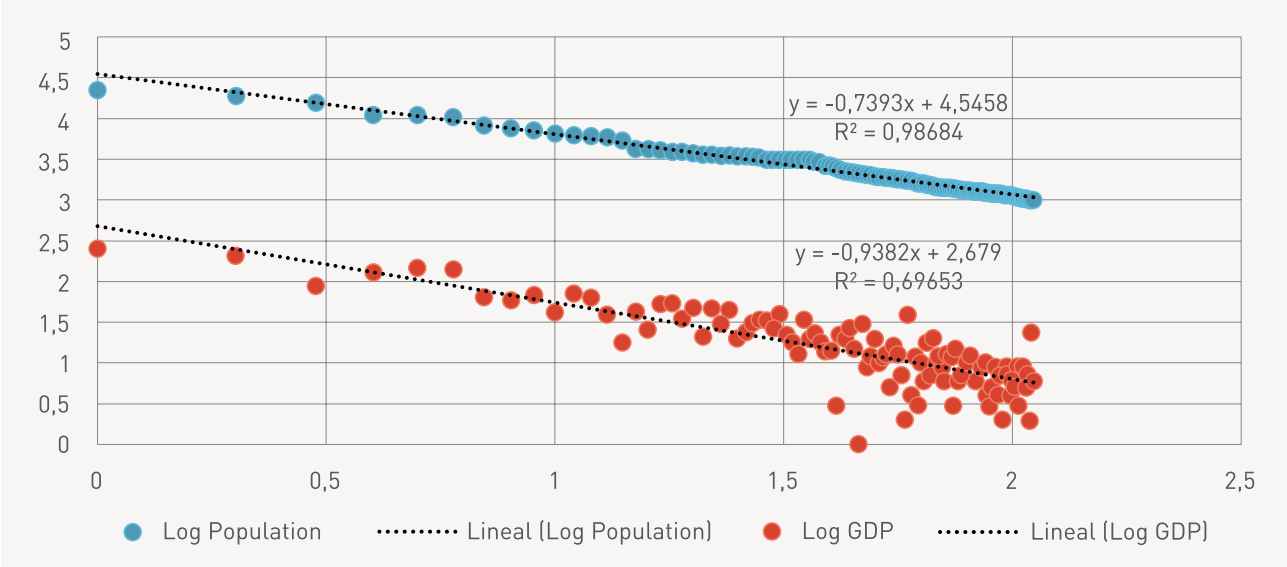
Graph 2.2 shows the relationship between the ranking of population size and GDP for 205 Chinese cities. This measurement is consistent with that of most other large economies in the world. The relationship between log ranking of population and GDP demonstrates, however, that cities with fewer than one million inhabitants experience significant variations in GDP. Except resource-rich cities in Western China, GDP variations in inland cities are much greater than in coastal cities, or in cities located on large navigable rivers. The log ranking of the relationship between population and GDP for China is similar to that of other large countries in Asia, including India, Indonesia, and Pakistan. Accessibility, quality of infrastructure, distance from the national capital and skills development are all factors that explain why many inland i-cities in Asia are not performing as well as coastal i-cities.

I-cities' demographic relevance has an impact on their ability to generate economies of scale in production and/or competitiveness of local firms and industries.[32] As i-cities grow, they also generate their own internal economies of scale and local markets, and their economies tend to diversify. This transition normally occurs when the urban population exceeds 60,000-100,000 – depending on the country – and especially when a city has technological and innovative industries, a fully functioning regional university campus or strong political and business leaderships. I-cities with a population of 250,000 or more tend to perform better than small cities, especially in the categories of job creation, economic growth, innovation and wealth.[33]

Comparisons between i-cities and larger cities should, however, be made with care

Graph 2.2 **Log of the relationship of GDP and population by city ranking, Chinese cities (2015)**

Source: MGI, 2014; UN-DESA, 2015



Data collected for 421 United States cities show that major cities significantly out-perform intermediary and small cities in employment creation in the information and manufacturing sectors.[34] Studies of European,[35] Australian, Latin American[36] and South African cities show similar trends.[37] What is also apparent from the literature is that smaller cities of fewer than 100,000 inhabitants tend to struggle compared with larger cities, and are far more vulnerable to economic turbulence.

Inequality (and its perception) is an important related issue for i-cities. It is commonly assumed that an increase in inequality is an inevitable consequence of economic growth and urban development. There exists, nonetheless, little analytical evidence that relates economic inequality to a city's size and population. Although a study of Latin American cities, conducted by UN-Habitat and one of the development banks of Latin America, *Corporación Andina de Fomento* (CAF), indicates a correlation between city population and income disparity,[38] i-cities show a larger variation in income differentials, and widely varying success at reducing inequality. The availability of global evidence across a wider range of indicators – such as innovation, quality of life, literacy, human resources and infrastructure – is still limited. At least in Europe and Northern America, however, the pool of i-cities shows a growing gap between those able to innovate and those (usually smaller cities) that still lag behind. Central governments must take into account the negative consequences of these widening disparities between cities on regional economies and societies. Efficient multilevel governance must step up to this challenge by acknowledging i-cities' key contribution to territorial integration and cohesion, and by fostering impactful policies that hinge on the creation of balanced and integrated polycentric urban systems. **With the reduction of inequality demanded by Goal 10 of the SDGs, the 'good governance' of i-cities is still one of the most important catalysts of progress, participation and innovation, and an ally in the challenge to 'leave no one behind'.**

As i-cities grow, they also generate their own internal economies of scale and local markets, and their economies tend to diversify

2.2 EVOLUTION OF URBAN GOVERNANCE AND FINANCING OF I-CITIES

I-cities are embedded into specific institutional and legal frameworks inherited from long-standing social and political arrangements within each state. Across different regions, processes of decentralization and devolution of administrative functions are underway that share a number of common elements. Legal frameworks conceived to foster local autonomy have made possible the transfer, to different degrees, of resources and responsibilities to i-city governments.

2.2.1 The implementation of local governance: purpose and design

Decentralization – defined as the devolution of responsibilities and functions from central to both intermediate (e.g. regions, provinces or departments) and local governments – almost always comprises three fundamental dimensions: political, fiscal, and administrative. Its success has been connected, first and foremost, to the outcome in the balance of power between different levels of government and the functionality of administrative powers and fiscal resources to enforce such a process.

In many developed countries with a long history of decentralized governance, the legal and institutional frameworks that determine the functional responsibilities and fiscal powers of local governments are, in general, better established and elaborated. This is even in spite of the difficulties and drawbacks inevitably experienced by many of them. Generally speaking, i-cities have been assigned explicit mandatory and elective expenditure responsibilities, as well as fiscal powers in terms of revenues, transfers and borrowing authority. They have also been empowered with a set of effective rules and regulations that facilitate local governments to operate in a more efficient, transparent and accountable manner.

In many developing countries, the legal and institutional framework conditions for good local governance are not yet in place. Legislation that may further detail the distribution of fiscal powers and responsibilities often remains ambiguous, fragmentary and incomplete. The same goes for subsidiary rules and regulations. As a result, local governments – including i-cities

– lack the institutional incentive and capacity to efficiently exploit their developmental potential and manage their financial resources.

In Europe, reforms at both the national and the supranational level were instrumental in the promotion of new forms of governance that have also involved i-cities. For several decades now, the continent has seen a continuing, though sometimes uneven, trend towards greater democratic decentralization to the local and regional levels, as evidenced by the European Charter for Local Self-Government.[39] The role of local government has grown considerably. The 2008 financial and economic crisis has, however, affected sub-national reforms. This is in the form of territorial reorganization (e.g. amalgamation of municipalities or other tiers of sub-national governments in some countries); generalized budget restrictions that reduced public investments (sub-national public investments, for instance, fell by more than 20% between 2009 and 2013) and, in some cases, recentralization of competences.[40] At the EU level, however, several programmes aimed at enhancing municipal administrative capacities have targeted i-cities in particular.[41]

Meanwhile, Latin America is now reaping the benefits of a 30-year-long wave of decentralization that has built on the democratization of participative processes at the local level and strengthened the governance of i-cities. Multi-party local elections are now a reality throughout all countries of the region (with the exception of Cuba). Positive spill-overs of this empowerment of citizen participation have slowly and steadily elicited a transfer of both policy competences and financial capabilities from the central to the local level of government – although a few contexts (Costa Rica, Panama, and Uruguay) have shown stronger resistance until recently to such trends.

In the Asia Pacific region, decentralization reforms in South-eastern Asia, have brought about major institutional innovations for local policy-making and management, including in the traditionally highly centralized contexts of Indonesia and the Philippines, and, to a lesser extent in India. The OECD countries in the region – Australia, Japan, the Republic of Korea and New Zealand – have also emphasized the empowerment of sub-national governments during processes of administrative reform. Countries such as China and Vietnam have adopted decentralization strategies at administrative and financial levels within an overall context of strategic economic modernization. Other countries, such as Pakistan, have experienced successive cycles of centralization and decentralization. At the same time, higher tiers of government in Asia have often managed to retain control over local governments, mostly through the power of appointment, only symbolically ratified by local councils, or through administrative controls and very limited transfer of resources. This phenomenon is also visible in the MEWA region where, with the exception of Turkey, central governments have retained tight control of policy and seldom devolved any competences to lower levels.[42]

In Africa, a formal wave of decentralization policies swept the continent during the 1990s and the constitutional reforms of the 2000s.[43] Nonetheless, with some exceptions (e.g. South Africa, Morocco), the average actual implementation and devolution of these programmes and plans has been incomplete, inconsistent and sporadic at best. Despite African nations signing a charter on decentralization in 2014, political traditions and conflicts continue to hamper such efforts across the African continent.

Where it has taken place, the empowerment of sub-regional units with decision-making powers has structurally transformed i-cities' governance. While acknowledging the responsibilities of local government, the institutional framework has not, however, led to a clearer distribution of skills and competences. In many cases, especially in countries with a strong central state, the definition of the appropriate distribution of power is still a fluid process.

Photo: Elias Afassi - N'Dali (Benin).

It has not been uncommon for central governments to oppose local ones on the grounds of preserving the general interest over and above a city's particular local needs, thereby questioning the capability of local governments as drivers of change. Higher-tier resistance to substantive decentralization is even more apparent in the case of i-cities, mostly because of the disparity of resources between these two levels of government and the overwhelming influence that interest groups have at the regional and national levels. There have been few examples of i-cities who have managed to surmount resistance from either central government or powerful economic actors.[44]

I-cities need an enabling and adapted legal and institutional environment. National policies should address i-cities' specific issues through customized decentralization, to create a flexible, multi-layered system that adapts devolved responsibilities to different i-cities contexts. They should clarify the shared responsibilities between the various levels of government based on the principle of subsidiarity and reduce the overarching rules and regulations that overburden the limited capacities of i-cities. These reforms could strongly contribute to the achievement of Goal 16.6 of the SDGs ('Develop effective, accountable and transparent institutions at all levels'). National governments should involve i-cities in decision-making processes related to decentralization and national urban policy (NUP). This requires mechanisms for regular dialogue and cooperation between i-cities, national and regional governments, to facilitate complementarities and be conducive to more integrated territorial governance.

I-cities need an enabling and adapted legal and institutional environment

2.2.2 From open politics to participatory governance

The accountability of local representation plays a significant role when it comes to assessing governance performance and the delivery of policy outputs to the local populations of i-cities. Open politics at the local level, with concrete policies to leverage the role of civil society to an active and autonomous participation in the process, has become essential to the fairness, responsiveness and effectiveness of local governance.

Many initiatives to achieve and improve political accountability to i-cities' electorates have taken place by creating channels for citizens' cooperation and direct participation in public affairs. Public consultations and deliberation; extensive collaboration with organized social groups; institutionalized contact with government officials; and systematic pressure to increase budget and decisional transparency, as well as to accept popular initiatives, have been just some of the most visible indicators of the transition towards participatory governance at the local level. Mayoral consultation, referenda and participatory municipal budgeting have all been implemented in more than 3,000 cities in different countries, and need further development to achieve an open, transparent and legitimate mandate for local governments worldwide.[45]

Local democracy and citizens' participation in local decision-making are crucial to support strong local government and development processes, and to achieve 'inclusive, participatory and representative decision-making at all levels' (Goal 16.7 of the SDGs). **I-cities' local governments must create an enabling environment for direct civil society participation and the involvement of other civil society actors in creating the vision, content, monitoring and evaluation of public policies. Gender and anti-discriminatory approaches to citizen engagement are crucial to enhancing local democracy and inclusiveness in all policy and decision-making processes.** Goal 5 of the SDGs, for instance, addresses gender equality, in particular Goal 5.5, which calls for 'women's full participation and equal opportunities for leadership at all levels'. I-cities' local authorities can significantly benefit from establishing systems for monitoring public opinion about local public policies and programme performance.

2.2.3 Fiscal decentralization

There are certainly large differences in the volume of financial resources that i-cities across the world have at their disposal, and in the ability of different i-cities to access these resources. Table 2.3 shows the total revenue per capita per year of 19 i-cities. These range in order of magnitude (largest to smallest) from USD 5,612 in Aberdeen, United Kingdom, through to USD 644 in Monteria, Colombia, and USD 0.31 in Kenema, Sierra Leone. I-cities in OECD countries receive by far the most revenue per capita; i-cities in Africa and Asia receive the least, and those in Latin America fall in the middle of the spectrum.[46]

Importantly, there are also significant variations in where i-cities draw their revenue

Table 2.2 **Municipal budget: revenue, total and per capita for selected i-cities**

Source: Gundula Löffler, Analysis of the state of local finance in intermediary cities. (to access this document with original data: http://www.gold.uclg.org/reports

INTERMEDIARY CITY	Country	Population	Total revenue (in USD)	Total revenue per capita (in USD)	Own revenue (in USD)	Own revenue as share of total revenue (%)	Intergov'l' transfers (in USD)	Intergov'l' transfers as share of total revenue (%)
Saskatoon	Canada	248,700	276,933,309	1,114	232,022,453	83.8	44,910,855	16.2
Peterborough	Canada	78,700	211,044,965	2,682	151,377,519	71.7	59,667,447	28.3
Freiburg	Germany	230,542	838,805,311	3,638	577,518,508	68.9	261,397,776	31.2
Leipzig	Germany	526,909	1,388,328,786	2,635	856,358,845	61.7	531,969,941	38.3
Bristol	United Kingdom	442,500	2,171,129,880	4,907	1,025,332,711	47.2	1,145,797,168	52.8
Aberdeen	United Kingdom	196,670	1,103,790,822	5,612	502,835,018	45.6	600,955,804	54.4
Polokwane	South Africa	642,183	141,731,803	221	95,945,832	67.7	45,785,971	32.3
Matlosana	South Africa	433,973	121,637,691	280	86,873,134	71.4	34,764,558	28.6
Bo	Sierra Leone	149,957	53,542	0.36	20,514	38.3	33,028	61.7
Kenema	Sierra Leone	128,402	40,370	0.31	15,408	38.2	24,961	61.8
Iwo	Nigeria	224,550	3,237,533	14	71,703	2.2	3,165,830	97.8
Pekalongan	Indonesia	275,241	27,667,913	101	1,634,133	5.9	26,033,780	94.1
Langsa	Indonesia	140,267	23,715,334	169	1,630,770	6.9	22,084,564	93.1
General Santos City	Philippines	538,086	31,174,093	58	12,529,209	40.2	18,644,884	59.8
Lucena City	Philippines	246,392	13,326,453	54	5,299,701	39.8	8,026,752	60.2
Cucuta	Colombia	566,244	242,481,541	428	57,970,204	23.9	184,511,337	76.1
Monteria	Colombia	288,192	185,703,370	644	53,450,200	28.8	132,253,170	71.2
Feira de Santana	Brazil	556,642	221,875,911	399	61,715,088	27.8	160,160,823	72.2
Guarapuava	Brazil	167,328	88,482,758	529	23,700,989	26.8	64,781,769	73.2

from. While a considerable number obtain most of their income from local revenue sources, many of them are heavily reliant on intergovernmental transfers to meet both recurrent and capital expenditure costs. Intergovernmental transfers tend to have a less important role in more developed cities, as they are usually in a better position to meet their expenditure needs through other revenue sources. There are also significant exceptions to this trend (e.g. Matlosana and Polokwane in South Africa). **Dependence on intergovernmental transfers can create problems for cities' budget planning and execution: when transfer amounts are difficult to predict, disbursement is unreliable, or when transfers are subject to significant conditionality**.

As regards the composition of local revenues, local taxes play the biggest role in most i-cities. One common source of revenue are taxes on business activity (e.g. business licensing taxes, market fees, trading taxes).[47] While some business taxes are widespread in developing countries due to their ease of collection (e.g. in China, Kenya, Rwanda, Ivory Coast, Brazil, Venezuela and the Philippines, among others), their importance tends to be limited in OECD countries (e.g. in France, Belgium, Germany, the United Kingdom, Switzerland, and in some states of the United States). Taxes on land and immobile property are also largely devolved to local governments in both developed and developing countries, although there are significant discrepancies regarding the

effectiveness of their exploitation. In most developed countries, property taxes tend to be administered effectively in all types of urban settlements, while in developing countries effective property and property transfer tax collection is often limited to metropolitan areas. Despite their substantive revenue potential, many i-cities in Africa, Asia and Latin America often fail to systematically collect these taxes. This is due to their fairly complex administration but also because of political economy issues (with important exceptions such as Colombia, Mexico, Argentina, Chile, Guinea, Tunisia, and several federate states in India). [48]

Other local revenue sources are local fees and user charges. Their contribution to local budgets, however, varies considerably – e.g. Freiburg, Leipzig (Germany), Lucena City (the Philippines) or Cúcuta (Colombia) only collect between 0.2% and 4.9% of their budget from fees and user charges, while in Peterborough (Canada) and Matlosana and Polokwane (South Africa) this share is as high as 31.3%, 68.5% and 64.2% respectively. These significant differences can be at least partly explained by the wide range of services for which the cities charge directly.[49]

In developing countries, the access to and quality of local infrastructure and basic services is often more problematic in i-cities, although there are important regional differences

Land development payments that serve to capture value increases from public infrastructure development are another relevant land-related revenue source. Here, i-cities need to catch up. In most large and i-cities in Europe and Northern America, local governments make these assets work for them effectively. In developing countries, the record of i-cities with regard to their use of public assets is somewhat mixed, mainly due to poor management, including recording, valuation and depreciation of public assets.

Another way for local governments to access additional capital is through borrowing. In most developed countries, both large and i-cities routinely borrow financial resources. Countries such as the United States, Canada, Belgium, Finland, Sweden, France and Spain have established bond banks that facilitate local governments' access to bond markets.[50] In contrast to this, municipal borrowing in the developing world is often limited to metropolitan areas. In Brazil, for example, the three metropolitan cities of São Paulo, Rio de Janeiro and Salvador de Bahía account for about 75% of total local borrowing.[51] In South Africa, only 26 out of 283 municipalities took out loans in 2008, among which were all the country's larger cities and metropolitan areas.[52] With some exceptions (Indonesia, Colombia, the Philippines, and South Africa), i-cities frequently suffer from poor creditworthiness aggravated by administrative and regulatory restrictions, and the immaturity of national financial markets.[53] Without improved public sector financial management and credit status, many smaller i-cities are completely excluded access to public and private sector capital bond and lending markets.

In summary, many i-cities have tremendous untapped financial resources. National and regional governments should ensure adequate financing of i-cities to unlock their potential as catalysts for territorial development. Local governments need financial powers and autonomy to generate local revenues and access to different funding sources, and to experiment with innovative financing models. These will be instrumental to contribute to Goal 17.1 of the SDGs, to 'strengthen domestic resource mobilization, (...) improve domestic capacity for tax and other revenue collection'. On their side, i-cities must enhance accountability mechanisms (performance monitoring, transparent budgets and public procurements systems, adequate public asset management) to ensure sound municipal governance – and thereby respond to SDGs' Goal 16.6 ('effective, accountable and transparent institutions at all levels'). Steps must be taken to improve local governments' borrowing capacity. Central or regional governments need to establish or reinforce mechanisms like municipal development funds and municipal banks for more efficiency in leveraging access to credit or capital markets for long-term infrastructure investments adapted to cities' needs. International institutions and donors must give greater priority to the targeting and weighting of official development assistance (ODA) funding to i-cities' governments for development in low and lower middle-income countries. All these steps, moreover, are consistent with the overarching commitments adopted by national governments and international institutions in the Addis Ababa Action Agenda for financing sustainable development and developing sustainable finance (paragraph 34).

2.2.4 Improving basic service management

The process of political and administrative decentralization towards local governments has allowed them to take up important responsibilities in various public policy areas.

I-cities are typically responsible for the provision of a wide range of infrastructures. These can vary considerably from one country to another but include roads, public transportation, water and sanitation systems, schools, health centres, and other public amenities. All these services are critical for the quality of life of local communities and the achievement of several key SDGs e.g. Goals 1, 3, 4, 6, 7 and 11.

In developed countries, most i-cities are able to provide universal access to high-quality public services and have a record of good infrastructure management (see, for instance, the case of Fredericton, Canada, in Box 2.1), even if there are significant regional differences. However, an increasing number of i-cities face growing budget constraints and, particularly in Northern America, ageing infrastructures, deferred maintenance issues, adaptation to new structural challenges (e.g. climate change effects), as well as access inequalities.[54]

In developing countries, the access to and quality of local infrastructure and basic services is often more problematic in i-cities, although there are important regional differences. Based on a sample of cities in different regions, UN-Habitat calculates that in Latin America and Eurasia, between 75% and 88% of urban households are connected to piped water and between 65% and 71% to sewerage systems. Meanwhile, in Africa and Asia, the percentages are around 50% for piped water and 43% in Asia and 28% in Africa for sewerage. In all regions, except Eurasia, i-city household connections are in general between ten and 20 points below those in metropolitan areas. Connections to electricity vary from 69% on average in Africa to 99% in Eurasia and 96% in Latin America. But household connections in i-cities are in turn five to 15 points below those in metropolitan areas.[56]

As mentioned above, many i-cities are heavily reliant on central government grants and do not have the revenues to provide universal service access and support the expansion of services to newly urbanized areas. Studies of public capital expenditure on infrastructure show that there are significant differences in the levels of urban investment, which is heavily biased towards major and capital cities.[57] In some cases, the deterioration of basic services is related to the structure of intergovernmental transfers, which tend to disregard local government expenditure needs in maintenance and repairs of services and concentrate allocations on new investments.[58]

BOX 2.1 GOOD PRACTICE PLANNING, INFRASTRUCTURE MANAGEMENT IN FREDERICTON, CANADA

Fredericton is the capital of the Canadian province of New Brunswick and is located in the west-central portion of the province, along the Saint John River. One of the main urban centres in New Brunswick with a population of 56,224 (2011), this small i-city is the third largest city in the province. Fredericton is a quintessential Northern American or European i-city. Once a lumber town, it has undergone significant structural changes, with education now being its largest employment sector. As a small city, it paid very careful attention to the planning, management, and maintenance of infrastructure, which is affected by extreme weather conditions during the winter. Fredericton's infrastructure is currently valued at more than 1.3 billion Canadian dollars. This translates into an investment of over 43,000 Canadian dollars per property in general fund infrastructure, and 30,000 Canadian dollars for each connected property of fund utility infrastructure.[55]

As a consequence, infrastructure in i-cities tends to be much older, poorer, and less well-maintained than in larger metropolitan regions, hampering i-cities' potential for sustainable development as well as severely disincentivizing future investment.[59] The major deficits relate to water and sanitation, electricity and urban and inter-urban mobility. Long-distance high-speed rail investments have in many cases delayed the modernization of local railway services, not only in Europe but also in Africa. This is strongly emphasized in the Abuja Declaration for Habitat III ('Africa's Priority for the New Urban Agenda', published on 24 – 26 February 2016), which calls for 'well-connected cities and human settlements at national and regional levels as nodes of growth... enhanced connectivity between rural and urban areas to harness the full potential of the rural-urban linkages' and to 'take advantage of urban corridors at the regional level for related infrastructural and other initiatives'.[60]

As an alternative to increasing public debt, Public-Private Partnerships (PPPs) have been widely promoted as a means of improving efficiency in service provision and overcoming capital constraints. However, many countries – mainly but not exclusively developing ones

BOX 2.2 INTER-MUNICIPAL COOPERATION MODELS

Forms of cooperation between local authorities may range from simple 'areas of cooperation' (e.g. Spain's *comarcas*) to associations (e.g. Spain's *mancomunidades de municipios*, *associações* in Portugal, France's *intercommunalités*, or Italy's *unioni di comuni*) or syndicates, as in the Netherlands. Some of these models imply the creation of an integrated inter-municipal entity, with pre-determined functions. Others are more flexible schemes that build on looser legislative and institutional frameworks. Local authorities engage, accordingly, mostly in ad hoc joint delivery of services, whose technical or administrative complexity may vary extensively and are generally under the jurisdiction of ordinary law and contractual procedures. Bulgaria, the Czech Republic, as well as the United Kingdom are usually associated with this kind of cooperation arrangement. A third model consists of special districts for specific services and this is widespread in the United States e.g. school or water service districts.

Local governments in France have developed a unique model of inter-municipal cooperation. The legislative framework of French *intercommunalités* was created by its Public Institution of Inter-Municipal Cooperation (*Établissement Public de Coopération Intercommunale* - EPCI), and their powers are limited to areas and matters that are pre-established by the law or delegated to them by member municipalities. The defining element of France's *intercommunalités* is that they enjoy the right to collect taxes. The EPCI scheme has grown steadily in the last few decades. In 2016, the EPCI framework included close to 12,000 structures and more than 3,000 syndicates, including 12 metropolitan poles.[64]

In Spain, as of 2016, there are 922 active inter-municipal cooperation institutions (*mancomunidades de municipios*), that do not have any tax collection powers. Evidence seems to indicate that these schemes involve a majority of small municipalities that would otherwise on their own be unable to take care of basic service provision. The Philippines also provides an interesting insight into the second general model of inter-municipal cooperation. The PALMA (Pigcwayan, Alamada, Libungan, Midsayap, Aleosan) Alliance brings together small municipalities of North Cotabato that are remote from big urban centres and usually highly dependent on fiscal transfers from central government. These municipalities developed an inter-municipal agreement whereby six local governments started sharing their heavy machinery. As a result, each member municipality was able to open and maintain all-weather roads without using contractors. Other strong examples of inter-municipal cooperation can be found in Latin America.[65]

– still lack adequate legal frameworks. I-cities, moreover, are often not attractive enough to private service providers and may lack the bargaining power to effectively negotiate convenient arrangements with the private sector. PPPs are often difficult to assemble in the context of limited resources, and i-cities have long needed to approach this instrument with great caution.[61]

A different type of PPP, namely partnership arrangements with citizen groups controlling large amounts of remittance monies through migrant hometown associations (HTAs), has started to play a role in some countries of Asia, Africa and Latin America and, in particular, in their i-cities.[62] As mentioned in Chapter 1 on metropolitan areas, small private enterprises in both formal and informal sectors (e.g. individual operators and cooperatives), as well as partnerships with local communities (public-people partnerships) could play an important role where the quality and extent of such provisions by official service providers are lacking.[63]

Inter-municipal cooperation is another important mechanism for smaller i-cities to overcome their limited capacities in service provision. The concept of inter-municipal cooperation spans the whole range of institutional relations between two or more municipalities that agree to share common operative functions and features. The degree of institutionalization of such cooperation may vary significantly and has an impact on the scope and effectiveness of these schemes (see Box 2.2).

The strengthening of public service management is critical to improving access to basic services. These services are often carried out in i-cities by local government departments or public providers. **Their effectiveness must be improved by investing in human and technical resources, implementing modern management systems and strengthening inter-municipal cooperation.** Stronger partnerships between local governments (that have the responsibility to deliver public services) and key stakeholders (such as central governments, service operators, trade unions and civil society) should be better exploited. Local authorities, therefore, need clear legal frameworks and support to negotiate PPPs, especially in intermediary and smaller cities that do not have the power or capacity of large metropolises.

2.3 INCLUSIVE PLANNING FOR A SUSTAINABLE URBAN DEVELOPMENT

Urban and territorial planning has always played a significant role in the local politics of many cities throughout the 20th century. Planning allows cities to make their own growth expectations compatible with the preservation and valorization of their economic, social and environmental assets. Whenever it has coincided with robust and effective national and regional legal frameworks, responsible leadership and an informed citizenship, urban planning has become the key instrument to protect the city's scale by fostering neighbourhood compactness, social inclusion and functional diversity; revitalizing the public space; rationalizing mobility and urban infrastructure; organizing non-urbanized land; and taking advantage of key resources such as its historical heritage and natural environment.

SDGs devote great attention to 'participatory and integrated planning' to build inclusive and sustainable cities (SDG 11.3). In this regard, policies should consider the growing gap between advanced and developing economies. In European and Northern American cities, urban planning is a traditional component of local public management and has been one of the key competences that allowed many i-cities to become an alternative to metropolitan areas, because of the attractiveness of their land availability for commercial and residential use, territorial interconnectedness, and quality of life. Conversely, planning in i-cities in developing countries has generally been weaker, with important exceptions in Latin America, North and Southern Africa and some countries in Asia. Many of these cities face challenges that stem from the accelerated processes of urban growth: settlement informality and peri-urbanization, inequality and the concentration of poverty pockets and environmental degradation. According to UN-Habitat,[66] most developing economies have left urban planning and land-use control in i-cities of fewer than 500,000 inhabitants fully in the hands of central and regional governments, resulting in inefficient outcomes.

Local governments in i-cities have now both a right and an obligation to plan according to the needs and expectations of their citizens, in collaboration with neighbouring municipalities, sharing with them the decision-making process on development plans. To do so, they will need an effective multilevel governance framework to work within, they will have to strengthen their human-scale proximity, anticipate and amend the externalities of informal peri-urbanization, and benefit from technology adoption to make their urban ecosystems more resilient, sustainable and smarter. These dimensions are analyzed in further detail throughout this section.

2.3.1 Strengthening urban governance

Good governance is the foundation upon which urban planning in i-cities can respond to the challenges imposed by urbanization. Weak national and regional legislative frameworks, inadequate technical and financial resources throughout the public administration, and the exclusion of citizens from the decision-making process are all factors that affect planning and its overall effectiveness.

Good governance is the foundation upon which urban planning in i-cities can respond to the challenges imposed by urbanization

National urban policies (NUPs) and the legislative frameworks they establish can provide planning decisions with a necessary legal certainty. In many countries, however, such frameworks are obsolete and have been neither updated nor adapted to acknowledge the specific needs of those i-cities facing rapid transformation. Efficient urban planning, at the same time, requires a duly trained[67] group of officials and professionals that are aware of, and committed to, the challenges and capabilities of local governments.

Strategic coordination across the national, regional, territorial and urban scales, would provide certainty and consistency around land-use management for i-cities that, in spite of being formally endowed with municipal planning tools, are still negatively affected by fragmented approaches to infrastructure planning, rural land use, and environmental protection. Master plans,[68] for instance, are still the main instrument of spatial and land-use management applied in many European cities. They tend to be rigid legal tools designed to cover an extended timeframe and are extremely costly, both economically and technically, for multilevel administrations throughout the design and implementation phases. Even in contexts characterized by low demographic pressures,

as is the case in many European i-cities, over the last few decades the pressures of the real-estate market combined with weak local governments have led to an over-valuation of the growth estimates upon which master plans had been devised. In many cases, these tensions have threatened the economic and environmental sustainability of urban planning.

Rigid legislation and insufficient resources to revise the planning toolkit can explain the low impact of 'spatial planning' in many i-cities in developing countries.[69] Other approaches, such as strategic planning and more flexible alternatives, have emerged over the last few decades, promoting a more integrated approach that includes a vision, an overarching framework, and short and medium-term policy decisions. Many African, Asian and Latin American i-cities (see Box 2.3) have used strategic planning as a 'roadmap' to prioritize public investment, such as fostering the local economy; strategic renovation projects for old towns and historical centres to promote tourism; investment attraction for new economic areas; public space recovery, or the reduction of environmental vulnerability. Accordingly, instruments such as the City Development Strategy (CDS)[70] integrate social, economic and environmental dimensions, thereby requiring coordination between both the citizenship and institutions through participatory channels.

An i-city such as Bilbao (Spain), for example, has modelled its strategic plan on increasing the international profile of the city through the transformation of former industrial areas into iconic cultural spaces, thanks to the inclusion of key actors including the Guggenheim Foundation. Other examples can be found in other European i-cities such as Valencia (Spain), Cottbus (Germany), Delft (the Netherlands) and Gdansk (Poland). Strategic planning has been popular in Latin American cities since the 1990s through city networks such as the *Centro Iberoamericano de Desarrollo Estratégico Urbano* (CIDEU),[71] and cities such as Trujillo (Peru) have pioneered the adoption of strategic planning to address integration issues across their urban fabric. More recently, Nampula (Mozambique) has structured its CDS around the commitment to strengthen institutional capacity and citizenship participation, especially in marginal neighbourhoods and slums. I-cities such as Montepuez and Calbayog in the Philippines have modelled their CDSs to foster agro-industrial sustainability of their main economic activities, mobilizing significant resources for infrastructure and housing.[72]

Many European countries have included in their urban legislation an obligation to involve their citizenship in the different stages of the urban and territorial planning process. However, these dynamics have often been criticized as one-off consultations that do not create a truly inclusive process of public management. Nevertheless, cities such as Bristol (United Kingdom), with its 'Campaign Creator', have actually strengthened their participative democracy by offering to their citizens frequent and ongoing opportunities for consultation.

Citizen participation goes far beyond the drafting of urban planning designs. Monitoring programmes and regular evaluation schemes established by many urban communities have been key mechanisms to institutionalize grassroots participation. Many Brazilian cities, such as Maringá or Canoas, have engaged

BOX 2.3 I-CITIES IN THE INTER-AMERICAN DEVELOPMENT BANK'S AGENDA

The Emerging and Sustainable Cities Initiative (ESCI) is a technical assistance programme that is providing direct support to local and central governments of Latin America and the Caribbean in the development and execution of their urban sustainability plans, with particular attention to i-cities. The ESCI adopts a comprehensive and interdisciplinary approach that identifies, organizes and prioritizes urban interventions in order to tackle the main hurdles that hamper a city's sustainable growth. This cross-sector approach builds on three main pillars: (i) environmental and climate sustainability; (ii) urban sustainability; and (iii) fiscal and governance sustainability.

Established in 2011 with five participant cities – two of which were the i-cities Trujillo (Peru) and Santa Ana (El Salvador) – in 2015 the ESCI encompassed 57 cities with a total population of about 52 million people. It has already supported the editing of action plans for i-cities such as Cumaná (Venezuela), Valledupar, Pasto, Monteria, Bucaramanga, Pereira and Manizales (Colombia), Santiago de los Caballeros (Dominican Republic), Salta and Paraná (Argentina), Montego Bay (Jamaica), Florianópolis (Brazil), Valdivia (Chile), Cuenca (Ecuador) and Cochabamba (Bolivia).[73]

citizens in their Participative Directive Plans[74] and improvements in the tax collection system and participative budgets of their municipalities. African i-cities such as Kisumu (Kenya), Manhiça and Xai-Xai (Mozambique), Gweru (Zimbabwe) or Entebbe (Uganda) are also good examples of participative experiences. In Benin, 24 intermediary and small cities developed plans for environmental intervention in 1,300 selected projects, of which 217 were fully implemented by their citizens between 1997 and 2011.[75]

To achieve Goal 11 of the SDGs, and more specifically targets 11.3 and 11.b ('number of cities and human settlements adopting and implementing integrated policies and plans'), **i-cities need to be mobilized systematically.** In developing countries i-cities need human resources, access to new technologies and other instruments to develop and enforce integrated urban planning and land use, applying flexible and simplified approaches, strengthening the involvement of communities and collaborating with other levels of government within cities. National governments should revamp the legislative frameworks and reshape available policy instruments to reflect the current needs of their cities. More experienced i-cities can serve as a reference in territorial management for other i-cities to strengthen their capacities and train their officials through decentralized cooperation. This is especially critical in rapidly growing urban areas in, for example, Sub-Saharan Africa and Asia.

In the context of i-cities, the concept of 'Right to the City' (see also Chapter 1) **should be rephrased as a 'right to the plan' and foster inclusion and participation in the design of urban plans** (see also SDG Goal 11.3). Participative plans and budgets need the population to have access to participatory spaces, information and the ability to follow and evaluate these processes. Unlike metropolises, the proximity scale of i-cities can actually become a competitive advantage by reducing the complexity of planning processes as well as enhancing coordination among social actors, including the most vulnerable groups and communities, in the definition of just urban policies.

2.3.2 Towards human-scale cities: planning compactness and public spaces

The impact of urban and demographic transitions, together with local governments' difficulties in developing and implementing their plans, have contributed to the emergence of unsustainable levels of urban sprawl and land use in many i-cities – in particular those around metropolitan areas. The impact of this has also cascaded into peri-urban areas, affecting in particular the livelihood and natural resources of rural populations closer to the city.

Compactness is essential for cities to preserve a 'human scale' and, therefore, lower the costs associated with urban layout, infrastructural maintenance, services and mobility.[77] It is advisable to promote urban policies that avoid low-density dispersion by designing new urban extensions that are as dense as more centric areas, while preserving

BOX 2.4 DYNAMIC, STRATEGIC, PARTICIPATORY AND LOW-COST PLANNING: THE BASE-PLANS FOR I-CITIES

Since 2003, the UNESCO Chair in Intermediary Cities and World Urbanization (University of Lleida, Spain) and the UIA-CIMES network of the International Union of Architects have applied the base-plan method in more than 150 local, regional, provincial and national governments in Europe, Africa, Asia and Latin America. The programmes were implemented by cooperating directly with national governments (with the Ministries of Urban Development and Housing of Ecuador in 2013, for instance, or of Costa Rica's in 2015) or regional governments (as was the case in the Santa Fe province, Argentina), in partnership with UCLG as well as with the participation of UN-Habitat.

Compared to conventional approaches, the base-plan is a flexible, functional, simple and economical urban and strategic planning methodology. It serves as the government's and citizens' first contact with urban policies: it lays the groundwork for dialogue and cooperation on urbanism and the urban policies that follow. The key objective of the base-plan is to prioritize urban policy actions that overcome any negative inertia and increase leadership and its capacity to take up the challenge of creating (in the local administration and community) an effective, efficient and responsible urban policy. Examples of what was achieved can be seen in the base-plans developed in the twelve African cities of Oran and Constantine (Algeria), Tangier (Morocco), Lubango (Angola), Sikasso (Mali), Lichinga, Manhiça and Caia (Mozambique), Wukro (Ethiopia) and Oussouyé (Senegal).[76]

indispensable urban public areas for roads and green spaces. Compactness is also essential for a city to support inclusive and cohesive strategies of functional integration: new land use should imply proximity of housing and economic activities, education and leisure, with public space designed through the lens of sustainable mobility.

Compactness has been a planning and urban management tool accessible to many European cities. Policies on compactness have focused on an increase in density in specific urban areas and, at the same time, the concentration of large parts of new public spaces within a 'green belt'. Conversely, in the United States, planning has been a vehicle for further urban dispersion and increasing socio-spatial segregation, with expansive suburbs characterized by high dispersion and specialized low-density peripheries that have often been divided along ethnic lines, all structurally dependent on private motorized transportation. In developing economies, peri-urban dispersion phenomena have, by and large, involved low-income or otherwise vulnerable groups. An inland i-city such as Cuenca (Ecuador), for instance, increased its population and urban footprint at similar rates in 2005, thereby maintaining its compactness, while between 2005 and 2010, the footprint of its new peri-urban extensions grew at twice the rate of population growth.[78] At the same time, especially in larger i-cities, a different trend of gated communities and neighbourhoods – typically associated with an emerging middle class and their concerns about safety and security – has also proliferated, as in the case of Valdivia (Chile) or San Pedro Sula (Honduras).

Intermediary cities, more than other urban agglomerations, face the challenge of making compactness and human scale compatible

Public space is vital for every city. This is particularly true for those i-cities that invest in their compactness. In these cases, it is the public space that allows citizenship to control the human scale of a city by looking strategically at walkable distances or a progressive reduction in polluting motorized mobility. In many Latin American i-cities such as Cuzco (Peru) or Antigua (Guatemala), the *Plazas de Armas* - the old city's central squares - are the heart and core of the city, a meeting point for both tourists and residents, and most of the city's leisure, accommodation and restoration opportunities tend to concentrate in this area. Similarly in Northern African and Middle Eastern cities, such as Tetouan and Essaouira (Morocco) or Esna (Egypt), the *souq* is generally the city's commercial centre. Food markets have historically been the primary setting of goods and service exchange between urban and rural areas. Informal markets and street sellers[79] also contribute to the liveliness of certain neighbourhood hubs and public spaces in Sub-Saharan African cities such as Matola, Inhambane or Nampula in Mozambique,[80] and South-eastern Asian cities. In smaller Indian i-cities, public spaces tend to reproduce the traits of the settlement's rural identity, with narrow pedestrian-sized streets that lead directly to the large rural farmlands in the surrounding areas.[81]

Intermediary cities, more than other urban agglomerations, face the challenge of making compactness and human scale compatible. **They can do so by promoting density, fostering a transition to multi-household dwelling models and finding an optimum balance between mobility networks and public spaces.** Such a transition, however, has to go hand in hand with a public policy blueprint that helps the most vulnerable parts of the population gain access to decent housing. Municipalities, on the other hand, have to strengthen land control and management, defining building-free areas available to the citizenship that may, over time, transform into a powerful network of public spaces. I-cities need to develop urban policies and projects to protect their tangible and intangible heritage values, preserve the quality of life and increase their attractiveness. In this regard, the improvement of the quality of public spaces plays a major role. Both dimensions are at the centre of Goal 11 of the SDGs, and more specifically of Goals 11.4 ('protect and safeguard the world's cultural and natural heritage') and 11.7 ('provide universal access to safe, inclusive and accessible, green and public spaces').

2.3.3 Access to land, housing and informal settlements

As with most metropolises, many i-cities in low and middle-income countries are coping with increasing environmental, economic and social deficits with regards to access to land or decent housing. Even i-cities, regardless of their size, have experienced processes of informal settlements, although without the same media fanfare that surrounds the paradigmatic slums of larger metropolitan agglomerations with high density and extreme living conditions. As mentioned above, the

local administration of many of these i-cities is still severely affected by the systematic lack of tools and resources – often in spite of the demographic growth and urban footprint expansion they have experienced.

In developed economies, the proportion of informal unserviced slums is small. Nevertheless, the problem of affordability a critical issue, especially regarding accessibility to adequate housing. As discussed in the previous chapter, the global financial crisis of 2008, aggravated by the reduction in social housing stock in the past few decades (in particular in Southern European countries) and a sizeable shortfall in net housing supply, has had a severe impact. This has further hindered the ability of low and middle-income citizens, as well as vulnerable groups (e.g. younger people or the unemployed) to have access to decent housing options and exacerbated social inequality and income segregation in urban spaces.[82] Globally, while house property and renting prices are generally lower in i-cities than in metropolitan areas, the relative difference in household income reduces overall housing affordability.

China, in particular, has tried to manage its accelerated urbanization process with strong, top-down state housing policies.[83] These policies were aimed at a population of several hundred million people and were sometimes brought forward regardless of their high social and environmental costs. The inefficiencies of some of these policies have given rise to 'ghost towns'.[84]

In many other low and middle-income economies, access to land is the first step for the poor to gain access to a liveable place, and this is strongly dependent on different typologies of land access and land tenure. Paôy Pêt (Cambodia), for example, has taken advantage of its proximity to the Thai border to grow by some 50,000 inhabitants over little more than six years, following typically rural land-use patterns, mostly through larger parcels of farmland. Kupang City (Indonesia) offers an example of a different growth model, promoting compact and dense lots resembling those of larger cities. In India, informal settlements can be seen throughout its urban geography, with a stronger impact on megacities and metropolises than on i-cities which still show, in many cases, traits typical of growth in a rural environment.

These models differ sharply from the urban context of Sub-Saharan Africa, where informal settlements, primarily concentrated in peri-urban areas, have severely reduced the (already small) room for manoeuvre of local administrations. Larger i-cities such as Blantyre (Malawi) have experienced extensive peri-urban growth, with extremely low density and a centre-periphery distance of over 10km, and this has fundamentally disrupted any efforts by local administrators to provide quality urban services. Conversely, i-cities such as Sodo, Arba Minch and Hosaina (Ethiopia), whose populations have doubled in a decade, have managed nonetheless to drive informal land use at city limits through the orthogonal zoning patterns of the city – an essential element of the provision of easier prospective urban services. Conversely, Latin American and Caribbean i-cities also show significant rates of residents in informal settlements, though not comparable to those of their large metropolitan areas. The lack of public mechanisms to tackle access to decent housing has traditionally been addressed through strong community self-management, from land organization to the self-construction of houses. In many Latin American i-cities, informal areas has turned into perhaps the most organic form of urban expansion and – as multilevel institutions have increased investments at the neighbourhood scale – have gradually taken up the provision of urban services. In Antofagasta (Chile), most of the 40 *campamentos* mapped by TECHO, consisting of more than 2,000 households, have settled at the eastern limit of the city and lack urban services or paved roads, but their typology is similar to that of more consolidated urban areas.

Urban and demographic transitions are accelerating the expansion of informal settlements and the consolidation of precarious habitats in many regions. Because of their scale, intermediary cities can guarantee and provide basic housing needs to their citizenship more efficiently and cheaply than metropolitan areas – through their urban renovation policies, neighbourhood upgrade programmes, land-tenure provisions, and locally co-managed self-construction schemes. However, **i-cities must demand that their national and regional governments be granted adequate resources to progressively integrate informal settlements into the existing urban fabric, so as to improve compactness and avoid social segregation**. Proactive interventions by i-cities will contribute significantly to the achievement of related SDGs, and more specifically to targets 1.4 and 11.1.

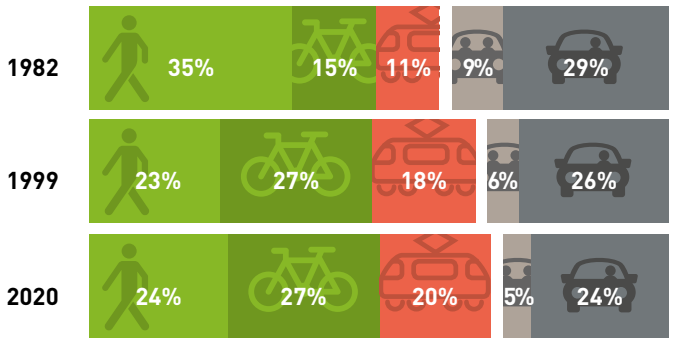
Because of their scale, intermediary cities can guarantee and provide basic housing needs to their citizenship more efficiently and cheaply than metropolitan areas

BOX 2.5 FREIBURG: MOBILITY AND ENERGY TRANSITION

Source: http://www.freiburg.de/pb/,Len/646587.html

Freiburg has put into practice some inspiring initiatives to reduce GHG emissions and confront the impact of climate change. The goal is to achieve a 40% emissions cut by 2030 by transitioning to renewable energy sources, imposing tighter regulations on building energy consumption and promoting an efficient public transit system along with an improved cycling network (the objectives are shown in the graph below). Between 1982 and 1999, the proportion of all trips made by bicycle rose from 15% to 27%, pedestrians' fell from 35% to 23%, the use of motor vehicles dropped from 38% to 32% and use of public transport rose from 11% to 18%. Freiburg now has more than 400km of cycling paths, including bike-friendly streets, street-side bike paths, and separate bike paths. About 9,000 bicycle parking spaces were provided, together with 'bike-and-ride' lots at transit stations to promote inter-modal transit. In 2011, the city council introduced a bylaw requesting any new buildings to offer bicycle parking facilities. With 423 cars per 1,000 people, Freiburg has the lowest automobile density of any city in Germany.

The city has also achieved high levels of waste recycling. Every household or apartment building, for example, has separate bins for paper, food and garden waste (the 'bio-bin'), and non-recyclables ('rest-waste'). Freiburg reduced its annual waste disposal from 140,000 tonnes in 1988 to 50,000 tonnes in 2000. The city has attracted many 'green' businesses, for example, there are more than 100 businesses working in the solar power industry. Freiburg has also attracted some research organizations. Overall, the Freiburg area environmental economy employs nearly 10,000 people in 1,500 businesses and generates 500 million euros per year.[86]



2.3.4 Environmental sustainability and urban resilience

Environmental sustainability and urban resilience need to be integrated into planning processes in i-cities. As the number of inhabitants of i-cities gains parity with the number of people living in metropolitan areas, their impact on the environment should not be ignored if the ambitions and objectives enshrined in the SDGs and the Paris climate change agenda are to be met in time. Urban planning, supported by sustainable policies, can reduce i-cities' environmental footprint. Policy actions should include improved waste management and recycling (Goals 11.6 and 12.5 of the SDGs); reduced GHG emissions; efficient energy consumption through enhanced compactness and short mobility distances; and the protection of green spaces and better use of natural resources.

Many i-cities have rapidly become global reference points for urban sustainability. Bristol (United Kingdom) has been recognized for its robust policies on promotion of public transport, creation of green spaces, biodiversity conservation and improved energy efficiency. Empowerment of civil society in the decision-making process and the expansion of the city's 'green economy' have both played a substantial role in these achievements. Meanwhile Freiburg (Germany), since the 1970s a pioneer of urban sustainability, is today a 'Green City' that has encouraged urban and economic development through the lenses of environmental policy, solar energy promotion and sustainability and climate change actions (see Box 2.5).

Bucaramanga (Colombia) is known as the 'city of parks' and since 2012 it has led the renovation of about 80% of public spaces through urban reforestation, monument renovation, and free Wi-Fi areas, creating over 120 new jobs for members of vulnerable communities. Since 2008 Chiang-Rai, a smaller i-city in Thailand, has introduced several initiatives to restore the losses in local biodiversity caused by the rapid urban expansion, promoting the harmonious integration of local industries and the environment and rapidly becoming a reference point for other cities in the region experiencing similar issues.

I-cities can more easily transition towards planning, building and developing more resilient cities, following the commitments adopted in the Sendai Framework for Disaster Risk Reduction and contributing to Goals 1.5, 11.3 and 11.b of the SDGs. A city's urban resilience measures the capability of

its population and habitat to absorb certain environmental, economic, or social impacts and overcome them in as short a time and with as small a (human and financial) cost as possible, and transform them into growth opportunities.

With regard to resilience strategies, a high-income i-city such as Christchurch (New Zealand) managed to emerge stronger from the 2011 earthquake crisis by improving its warning, coordination and seismic-protection systems, quickly becoming a global point of reference for the management of such risks.[87] On the other hand, many cities in developing countries of the Indian Ocean, Central Asia and the Caribbean, such as Léogâne (Haiti), are frequently on the cusp of humanitarian emergency. Cities such as Quy Nhon (Vietnam) have developed response mechanisms to enhance their energy resilience in the face of critical events, by integrating into their urban planning design detailed studies about potential water hazards.[88] Other studies suggest that i-cities in Sub-Saharan Africa may be more susceptible and less prepared to address severe climate change storm and earthquake damage and that resilience is generally slower because of weaker governance and financial capacity.[89]

The concept of the 'smart city', on the other hand, has evolved in tandem with the democratization – in both the public and the private spheres – of technology and social media networks. The implications of the smart city concept are still contested and debated in academic and practitioner communities, due to the inherent risk in allowing transnational technological products and providers to directly affect the management of local urban services. This notwithstanding, the positive impact of technology can still be invaluable when it comes to looking for new, effective responses to persistent urban problems. Led mostly by metropolises in advanced economies, the 'smartification' of cities has been a rapidly growing process that has involved, to different degrees, the whole world's urban geography. At the scale of intermediary and small cities, however, the concept of smart city has frequently referred to the use of technology to establish reliable virtual channels for citizen participation. Other cities, moreover, have applied these advances in mobility-oriented applications with the direct involvement of the citizen-user (e.g. real-time sharing of information about public transit and parking), although the provision of free wireless internet connection through city-wide hotspots has perhaps been the most successful policy in this regard.

Ultimately, i-cities have an advantage over metropolitan areas when it comes to fostering climate change plans and promoting adaptation and mitigation through sustainable policies. They should advocate a low-carbon, energy-efficient, risk-informed and resilient development pathway. Technology, moreover, can play a crucial part in preparing for an ecological transition – from an economy based on fossil fuel to a green economy based on sustainable energy. Compact urban form and neighbourhood functional diversity, together with the creative impulse of future generations, have to be the primary drivers of climate-friendly development. The Global Covenant of Mayors for Climate and Energy – an institution established through the merger of the Compact of Mayors (an initiative launched by a number of global networks of local authorities, such as the C-40 Cities Climate Leadership Group, ICLEI-Local Governments for Sustainability and UCLG, with the support of UN-Habitat and the UN Special Envoy Michael Bloomberg) and the Covenant of Mayors (institutionally supported by the European Commission) – has been actively committed to the fight against climate change and the reduction of GHG emissions (see Box 4.1 in Chapter 1 for more details), and offers a significant opportunity of enhanced institutional activity and visibility for many i-cities all around the world.

Photo: Pierre Martinot Lagarde - Negombo (Sri Lanka).

2.4 LOCAL ECONOMIC DEVELOPMENT

Intermediary cities face the crucial challenge of making their own local economies attractive to investment that can contribute to the overall wellbeing of their citizens. These cities, especially smaller ones, suffer from competitive disadvantages of scope and scale relative to larger urban agglomerations. In many countries, the strong concentration of resources in capitals and metropolitan areas has resulted in unbalanced access to services and investment, and growing inequality, both among systems of cities and between the urban and rural environments.

Local economic development (LED) has been a strategy of territorial empowerment for many i-cities

To overcome these difficulties, local economic development (LED) has been a strategy of territorial empowerment for many i-cities. This allows them to establish a number of local activities within a larger regional or national (even global) framework. Different forms of i-city business clusters have developed in different geographical contexts and with different modalities (high-tech, manufacturing clusters of automotive production, electronic industry, textiles, fashion, furniture, education, telecommunications, transportation, etc.). In Europe, support for regional clusters has been part of the EU's economic development strategy. Local authority support has been crucial for the economic development of SME clusters in European i-cities, especially those clusters that were experiencing financial difficulty before the economic crisis, for example in Italy.[90]

During the last decade, the development of city clusters in Asia has been the subject of several analyses.[91] Generally, Asian i-city clusters are newly-grown industrial centres, while Africa's are dominated by informal settlements and businesses, mostly including low-income groups. Northern American and Australian i-cities close to metropolitan areas, on the other hand, spread out over distances of 100km or more, and are predominantly residential and service or trade industry-based. Latin American i-city clusters are more functionally mixed. More examples on i-city clusters are developed below, in Section 3.

2.4.1 Economic development and the circular economy

As regards local economic development, many i-cities fail to understand and support the development of the circular economy.[92] A circular economy requires governments to take a more responsible approach to waste management and opportunities to capture and recycle waste, heat and energy to ensure local economic development is more sustainable. It requires that every effort is made to use renewable resources or to use resources for as long as possible, to extract the maximum value from them while in use, then recover and regenerate products and materials at the end of each serviceable life.

The major challenge for i-cities in creating the circular economy is the cost associated with recovery of waste and discharged heat energy. In many cases, critical mass is needed to create sufficient recyclable materials to generate scale industry opportunities to substitute reprocessed materials for virgin produce, which in most cases is cheaper.[93] The application of industrial ecology - the recovery of waste and heat energy - to support co-generation of electricity, use of recycled materials and water is becoming more widespread. Some i-cities have been very successful in applying industrial ecology to support the development of local circular economies. Kalundborg, a small city in Denmark, is an example of a city that has taken advantage of scale and position and moved to embracing a circular economy and applying industrial ecology very successfully.[94]

Local governments should take the lead in developing participatory LED strategies and bringing key partners together (the private sector, non-governmental organizations - NGOs, universities and local institutions) to share diagnoses and drive strategic projects to adapt to structural economic changes. **I-cities need to create a business-friendly environment that attracts firms, high-quality jobs and investment. This requires a mix of good infrastructure, creativity, innovation, civic entrepreneurship, public utilities and investment**. It also requires an effective public administration that reduces bureaucratic hurdles, helps local business and investors to cooperate, and contributes to the creation of business clusters and innovation. Local economic development policies can contribute to achieving 'decent work and economic growth' (Goal 8 of the SDGs), 'industry, innovation and infrastructure' (Goal 9) and 'reduced inequalities between territories' (Goal 10).

2.4.2 Rural-urban linkages

Improving rural-urban linkages is a matter of growing concern for i-cities because of the pivotal role they play in the development of regional sub-national economies. Investing in i-cities is vital to strengthen rural-urban alliances (see Box 2.6). Rural-urban linkages include a range of factors: the physical infrastructure services needed to move goods and services; the economic linkages incorporating the supply chains and value chains between centres of rural and regional production and urban markets; the knowledge systems in the ways information, data and knowledge is transferred between i-cities, small towns and rural areas; education, business and health services, and governance arrangements. For many rural regions and small towns, the quality and capacity of the infrastructure and services is weak, with very low levels of public and private sector investment. The effect of this is that transaction costs between i-cities and their supporting hinterland of smaller cities and rural settlements are rising. **As rural and regional sub-national areas lose population, this results in further depletion of human and social capital, loss of jobs and an increasing reliance on i-cities to supplement non-farm income**.

Better means of strengthening the capacity of rural-urban linkages are needed, given depleting resources and human capital to support smaller cities and rural areas. Innovative policies to foster 'shorter economic circuits' or 'localized food systems' are contributing to local production and strengthening local food security, job creation, transaction cost reduction, and the improvement of i-cities' carbon footprint. Many i-cities in Quebec (Canada), for instance, or the small i-city of Albi (France) are aiming to achieve food self-sufficiency.[95] The improvement of transport networks, communications and essential services enjoyed by the urban population (health, education, etc.) is also vital to ensure the viability and efficiency in smaller towns and surrounding rural areas. ICT services, for instance, are essential to strengthen urban-rural linkages, for example, by facilitating access to the internet in areas with poor access and through the use of technology for remote services (e.g. health, training, etc.).

An isolated i-city such as Pasto (Colombia) provides services to an extensive region (Nariño) in which 50% of the local rural population still relies on mini funds. Over the last decade, deficient infrastructure (roads, transit) has hindered access to market opportunities and agro-industrial systems needed for this agricultural economy,[96] emphasizing the revenue gap between rural and urban communities. Pasto's response has centred on the management of the city's peri-urban areas, making the city's physical urban growth compatible with the expected infrastructural and logistical expansion of productive rural areas.[97]

In several European rural areas, i-cities have fostered local development agencies for decades, together with business models more consistent with the needs and expectations of the local population and territory. Agricultural cooperatives, for instance, have grown to become a primary source of direct

BOX 2.6 RURAL-URBAN PARTNERSHIPS: AN INTEGRATED APPROACH TO ECONOMIC DEVELOPMENT

A 2013 OECD report considers different ways to foster rural-urban linkages using partnerships, with a case study of 11 cities and regions in Europe, Australia and the United States.[101] The European case studies include Nuremberg (Germany), Rennes (France), Brabantstad (the Netherlands), Castelo Branco (Portugal), Prague (Czech Republic), Extremadura (a Spanish region), Forlì-Cesena (an Italian province), West Pomerania (a region in Poland) and the Central Finland region. The OECD report focuses on the improvement of rural-urban partnerships through cooperation mechanisms that manage such linkages to achieve common goals and a better regional development, all the while taking into account the emergence of any rural-urban externalities.

I-cities emerge from the report as a key player in the strengthening of the rural-urban alliance. Rennes promoted its peri-urban agricultural system. Forlì and Nuremberg have improved economic cooperation between agricultural producers and urban consumers and successfully included the promotion of the local economy within their touristic development. The OECD report also praises those cities that have achieved a medium-scale service-based economy through the provision of cheaper, more efficient services to their urban and rural communities, such as in Jyväskylä and Saarijärvi-Viitasaari (Finland), mainly down to new technologies, or West Pomerania, through more efficient waste management. The report stresses the effectiveness of various measures to limit urban sprawl either through special integrated plans or a comprehensive development plan that engages the rural and urban environments equally.[102]

and indirect rural employment.[98] A small i-city such as Lleida (Spain) hosts one of Southern Europe's largest agro-alimentary cooperatives, an agglomeration of over 150 minor cooperatives that manage the whole production chain, from cultivation and transformation to distribution and commercialization, all the while protecting the worker through in-house insurance services. This system has increased productivity and optimized production chain flows.[99]

In China, national policies aimed at the modernization of agriculture certainly strengthened the bond between the urban and rural environments, investing in food security for their cities and bridging the wealth gap between rural and urban population in certain provinces.[100] At the same time, however, they have also boosted the rate at which the floating population has been pushed towards cities due to precarious livelihoods. In Peru, joint investments by the state and the International Fund for Agricultural Development (IFAD) in the development project for the Puno-Cuzco corridor have bolstered the relationship between farmers and the micro-business community of the corridor's i-cities. This project enhanced cohesion and empowered women in the management of savings groups that were essential to achieving long-term sustainability. Even so, the relationship between vulnerability reduction for the rural population and their products' availability on national and international markets was possibly the most valuable achievement, as i-cities configured themselves as key business hubs.

I-cities should expand their role as regional nodes of development, increasing their attractiveness and delivering, for example, quality infrastructures and basic services accessible to all inhabitants

I-cities' economic development can build on their competitive advantage by mobilizing their local assets and involving their hinterlands. They should engage in inter-municipal cooperation and rural-urban partnerships to promote more integrated development strategies and economies of scale. They should also expand their role as regional nodes of development, increasing their attractiveness and delivering, for example, quality infrastructures and basic services accessible to all inhabitants. Central governments, especially in emerging and developing countries, should develop an adequate legal framework and adopt incentives for strong alliances and cooperation between i-cities, small towns and rural communities – as required by Goal 11.a of the SDGs ('support positive economic, social and environmental links between urban, peri-urban and rural areas').

2.4.3 Identity and tourism

The very essence of i-cities is the uniqueness of their historic, cultural and natural capital. This can become a touristic and recreational asset, often different and more readily accessible than those offered by larger cities and their surroundings. Many i-cities have a bold cultural identity that their population has defended through time, making it possible for tangible (monuments, buildings, etc.) and intangible (traditions, holiday feasts, cultural events, etc.) heritages to survive. As the tourism industry grows in economic relevance, many i-cities have introduced incentives to promote the attractiveness of their own assets as well as those of their hinterland.[103] More visibility and better access through improved inter-regional air travel, can translate into investment opportunities. The advantage of i-cities is that they offer opportunities for sustainable investment in eco, cultural, agriculture and water sport tourism. Importantly this new hybrid of tourism, which focuses on individual and small group travel using locally-owned and operated accommodation, products and services, provides new models for tourism compatible with SDGs.

Mobility infrastructure and its refurbishment have been essential to tourism promotion in many i-cities. It is true, however, that rapid urbanization and too narrow an economic focus on mass tourism have negatively affected i-cities' economies in the past. Cities such as Denpasar (Bali Island, Indonesia), Cuzco (Peru), Luxor (Egypt), Stone Town (Tanzania) and Cartagena (Colombia) are facing enormous challenges in retaining their own cultural identity, product and asset management and planning capabilities, whilst coping with mass tourism.[104] Admittedly, building sustainable development into tourism has not been easy where funds to support cultural heritage and infrastructure are limited.

Dependency on one activity, such as tourism, has in fact been a challenge for several i-cities. For example, i-cities that are heavily dependent on international tourism can be strongly affected by changes in exchange rates or political relations. Bizerte, Hammamet, Cartago and other touristic Tunisian destinations have been severely impacted by the country's spiralling political situation. On the other hand, Malaga, a Spanish i-city on the Mediterranean coast, is

an interesting example of a systemic reaction to such risks of marginalization. Since the 1960s, Malaga has been a first-rate European touristic centre. It has nonetheless managed to reduce its dependency on seasonal tourism by investing heavily in its cultural and social agenda through initiatives such as *Ágora del Mediterráneo* or *SOHO Malaga*, and by positioning itself strategically in the landscape of global innovation clusters via the SmartCity Malaga project.

I-cities should build on their strong identity, as well as on their **cultural heritage and potential**, respect **their history and architectural wealth**, and invest in strong cultural policies. They should integrate **the cultural dimension of their cities as a key facet of sustainable development**, a vital element of social integration and political participation, but also as an opportunity for **enhanced attractiveness and long-term touristic potential coordinated with their hinterland and territory** (directly related to SDGs 8.9 and 11.4).

2.4.4 High-tech hubs and knowledge-based economy

Over the last few decades, many i-cities, especially in advanced economies, have oriented local economic development towards higher value knowledge sectors, while also leveraging technology to update and renew their primary and industrial sectors. Universities, dynamic business ecosystems, complex supply chains and good mobility and communications infrastructure are just some of the factors that have brought about a decentralization of knowledge from metropolitan areas to i-cities. According to the International Association of Science Parks and Areas of Innovation (IASP), 54.1% of all innovation parks are located in cities with fewer than one million inhabitants. In particular, 37.6% of all such institutions are located in cities with fewer than half a million inhabitants, a figure that is comparable with that of metropolitan areas.[105] Most of these institutions are publicly-funded, although there is a growing presence of PPPs.

A dynamic business environment revolving around innovation has allowed many i-cities to take immediate advantage of a number of advances in the environmental development and urban service provision. These cities' smaller size and the enhanced proximity between their local development agencies, universities, the private sector and citizens have made it easier, for instance, to rely on effective pilot trials that were then seamlessly integrated into actual management plans. Many of these features – such as e-government and electronic administration, or the circular economy in service provision – have changed for the better the daily habits and routines of the population.

For a number of i-cities in developing economies, where the quota of rural population remains significant, improvements in connectivity have helped public administrations to enhance the quality of their service provision; cut red tape and administrative costs; increase public management's transparency, monitoring and control; and gain more visibility within their regions. Examples are Yogyakarta (Indonesia), Tra Vinh (Vietnam) or Songkhla (Thailand). An i-city like Tunja (Colombia) is now replicating the successful model of Barcelona's (Spain) 22@ technological district, aiming to increase the competitiveness of its service-based economy through further investment in the knowledge economy and innovation. Technological

BOX 2.7 KNOWLEDGE-BASED CITIES

For several years now, the UCLG's Commission of Digital and Knowledge-Based Cities has been working together with local governments for the development and growth of truly smart, innovative and competitive cities. The outcomes of these innovation-driven processes are particularly important for i-cities, which can reap the benefits of technological development, integration and connectedness to improve their position in national urban systems, foster territorial cohesion, and act as technological hubs for a number of other local actors.

Together with the municipality of Bilbao – a front-runner in political and financial investment in urban innovation – the UCLG Committee of Digital and Knowledge-Based Cities has developed a holistic perspective that builds on six main axes for smarter cities: economy, governance, citizenship, quality of life, environment, and mobility.[106] This scheme aims to innovate and promote key factors, including investment in high-tech and innovation-driven industries and enterprises; ICT penetration in traditional economic activities; systematic improvement and enhancement of e-democracy and electronic administration; stronger presence of knowledge-driven education and research programmes; larger penetration of broad-band connectivity throughout the territory; technology-driven preservation of cultural heritage and opportunities; and e-health, e-inclusion and enhanced accessibility for all citizens, to improve the wellbeing and quality of life of an integrated, involved and interconnected citizenship.[107]

innovation and citizen participation have been key tools for bridging urban infrastructural gaps in an i-city in an emerging economy such as Solapur (India).[108] Many other such i-cities in emerging countries, e.g. Toluca (Mexico) or Ajmer (India), are living examples of the huge potential that i-cities enjoy as part of the information society. Astana (Kazakhstan) has been leading a growing movement of 'smart cities' in the region.

I-cities enjoy a significant advantage when it comes to positioning themselves at the regional, national and global level as innovation laboratories embedded in a knowledge economy (related to SDG Goal 8.2). This is the effect of advances in telecommunications: connectivity makes up for any distance from the relevant technological hub by granting access to global networks, allowing cities to replicate best practice initiatives.

2.4.5 Gender empowerment and inclusive economic growth

I-cities can also play a fundamental role in compensating socio-economic imbalances, not only between rural and urban areas but also between different layers of the population. In many cities, women and youth area substantial part of the vulnerable population. They tend to lead unemployment and informal economy rates, and are generally affected by a lack of public space and household security – a relevant driver of emigration. Persistent gender inequality and the absence of opportunities for younger generations are holding back the local economy and threatening the overall social cohesion of a city. As a result, in the last few decades the informal economy has soared in many cluster i-cities close to metropolitan areas in developing countries.

I-cities enjoy a significant advantage when it comes to positioning themselves at the regional, national and global level as innovation laboratories embedded in a knowledge economy

A good example of this is the mid-sized i-city of Nakuru (Kenya), with almost 335,000 inhabitants and where informal street vending is a key component of the local economy. Public management of this issue needs to rely on further representation of women in local decision-making bodies and participative budgets, on the rationalization of the licensing system, and on easier access to responsible financial sources.[109] Naga (the Philippines) has been the first i-city to issue, through the Women Development Code, a city ordinance that guarantees women's 'right to the city', awarding representation posts in public policy-making bodies and reserving 10% of the annual budget for programmes that are related to the ordinance's goals.[110] In many developing countries, a collaboration between local governments and cooperatives or community-based groups rooted in cities' informal economies has played a huge role in basic service provision – particularly when the quality and extent of provision by official service providers is lacking.[111] In particular cases, communities of up to 50,000 people have been efficiently served by small-scale initiatives that stem from the involvement of informal sectors of the economy in public management policies.[112]

Though less visible, over the last few decades, many Latin American i-cities have strengthened the role of women in local economic development, mostly through private and public initiatives that included technical and professional training programmes and improved their first-time access to decent jobs. Production, distribution and commercialization cooperatives have proven to be effective ways to escape the informal economy, in particular for women, even in unfavourable contexts – as the example of fast-growing Palestinian supermarket cooperatives Bezaria, Beita and Al-Noemeh show.[113]

While promoting gender equality in local economic development, i-cities should also consider socially inclusive urban policies that may positively affect the safety and security of the most vulnerable sections of the population. Together with public space, school is a key life stage where investment in infrastructure will benefit generations to come. Accordingly, in many Indian i-cities, women have been at the forefront of participative processes to renovate and improve the public space. In Antalya (Turkey), women have led improvement of urban services for peri-urban areas, and were able to control 70% of the decision-making process.[114] The improvement of safety and security of the public space significantly reduces women's exposure to male violence, as one beneficial externality of more efficient access to residential or productive land use.

Even though many enjoy only limited resources, i-cities can still use the advantages of proximity and human scale to address social issues tailored to the needs of people at risk of exclusion. At the same time, they can address gender and other inequalities (such as youth exclusion, the informal sector, immigrants and minorities). Urban plans and public services are not keeping up with growing urban demands and the gap between cities is widening. Local authorities need to be proactive and avoid the risk of increasing social polarization and exclusion. Their actions could contribute substantially to the achievement of a number of SDGs, for example Goal 5 on gender equality, Goal 8 on productive employment and decent work for all, and targets 8.5 and 8.6 on youth.

2.5
PROXIMITY AND HUMAN SCALE: LIMITATIONS AND OPPORTUNITIES

There has been a huge demographic, physical, economic and social transformation of i-cities throughout all the regions of the world, helping to shape a 'new economic geography'.[115] Although on average they will grow at a slower pace, i-cities face huge challenges in the coming 20 years to host the millions of new urban dwellers that are expected. This requires urgent action, especially in Southern and South-eastern Asia and Sub-Saharan Africa, to help i-cities to plan and manage this process in order to reduce the pressure on metropolitan areas and organize more balanced urban systems.

Differences among i-cities, and between i-cities and metropolitan areas – measured by GDP per capita and competitive advantages– are widening, particularly in developing countries. A majority of i-cities in the Global South are unable to ensure adequate urban planning, and larger i-cities now face similar challenges to metropolitan areas: sprawl, peri-urbanization, land and housing pressure, weak access to basic services, spatial segregation, spreading informality, environmental fragility, and resilience imperatives. The evolution and roles of i-cities should attract more attention from both national governments and international institutions. Most SDGs, and the New Urban Agenda, rely on the successful adaptation of i-cities to the challenges ahead.

Beyond their traditional role as administrative and service provision centres, many i-cities reinforced their role as local/regional hubs for revamped agricultural economies and specialized industries that were often associated with the exploitation of natural resources. Others developed new activities such as technological or knowledge centres or culture and tourism. I-city clusters or corridors have emerged in almost all regions, developing vital linkages

Photo: Izu navi - Atami Market, Shizuoka (Japan).

with global supply chains for goods and services. However, other i-cities have not benefited from these transformations and have in fact experienced stagnation or decline ('shrinking cities'). The next section explains the geography of these changes.

Legal and institutional reforms have also been decisive in this process. Over the last few decades, decentralization reforms have given local governments in i-cities more responsibility for service provision and infrastructure which form the basis of local attractiveness and quality of life. Nevertheless, in developing countries, an enabling environment for good local government performance is often not yet in place. Many i-cities are suffering increasing budgetary pressures, particularly in regions that are lagging.

Human scale provides an identity, a sense of belonging, close networks, tacit knowledge and the willingness of communities to work together to build a more prosperous environment. Size, however, also affects the availability of access to opportunities, services, jobs and knowledge. Distance from other centres of economic activity adds to the cost of doing business and reduces access to services and opportunities.

I-cities' economies must become more 'glocalized', i.e. they must gear local industry, production systems and trade to the demands of national and global markets

The challenge that local governments and citizens of i-cities now face is to turn the advantages into economic development policies, into inclusive societies, into a valuable and welcoming environment, into creative and liveable cities. I-cities also have to overcome the problems that come with the creation of a 'critical mass', to make local economic and social development affordable and accessible. Though there are no simple or immediate solutions to these problems, nor recipes to make i-cities more inclusive, dynamic and sustainable overnight, there exist several strategies – as shown throughout this chapter – that i-cities can use and turn into leadership opportunities.

As mentioned above, i-cities need to look for more collaborative models of development, strengthening their collaboration with other cities, local stakeholders and their hinterlands, building alliances with the private sector and communities to encourage endogenous growth, building on their own assets, strengthening local identities and social capacities. Participatory governance, strategic urban planning, integrated spatial, economic and social policies, shared strategic projects, economic development and inclusive social policies and gender equality could all be actions conducive to the foundation of these collaborative models of development. Fast growing, i-cities in developing regions need to prioritize flexible and integrated urban planning approaches, land-use management, reform of urban governance systems, financial management, and better access to land tenure, to basic services and decent living standards for everybody, following human rights' principles.

I-cities that go through structural reforms in the face of economic downturns should certainly prioritize re-education and re-skilling, strong political and business leadership, the participation of local communities and the different elements of a collaborative economy, as well as embrace innovation and new technologies. Specific policies are necessary to attract and retain young people in particular.

I-cities need to create a culture of cooperation rather than competition with their hinterlands and surrounding small towns and rural areas, promoting economic integration, shared assets, services, and infrastructures, adapted to the demands of the entire region. The challenge for many i-cities is how to operate both at their scale and in a more globalized and competitive economic environment. I-cities' economies must become more 'glocalized', i.e. they must gear local industry, production systems and trade to the demands of national and global markets, looking for more complementarities and synergies with metropolitan areas. National policies should foster and guide these strategies.

I-cities can and have become more prosperous, dynamic and creative places. They must learn how to use their assets in a sustainable way. Scale offers opportunities to transform their patterns of production and consumption, their social, cultural and natural environment. Scale also opens up spaces for i-cities to become more innovative and dynamic locations in which to live, work and create. To overcome some of the challenges they are facing, i-cities must learn to collaborate, integrate and work together within networks, building more synergies between urban areas and territories. They need to create a more balanced and complementary system of cities. I-cities' challenges and opportunities, however, will vary significantly across the world depending on their geographic, political and economic situation. These dimensions are reviewed in the next section.

3.

NATIONAL AND REGIONAL URBAN SYSTEMS AND INTERMEDIARY CITIES

Globalization, governmental reforms – including decentralization, urban growth and the impact of new technologies are changing the dynamics of development of urban areas. This is leading to a significant transformation of national urban systems and the expansion of international systems of cities in the global arena.

The spatial pattern of the network of systems of cities varies across different countries and regions, and is in flux.[116] Many countries have a hierarchal system of classified cities, some of which are defined by laws or even constitutions. Functional hierarchical systems remain the main basis of public administration and local finance in most countries. The pace of urbanization, however, is ushering in a more dynamic model, where cities are more networked and less hierarchically defined by population, size or government frameworks. This evolving pattern in systems of cities, based on functional linkages and interdependence, is bringing national, regional and global systems closer together. **This has profound yet unpredictable implications for the evolution and performance of existing urban hierarchies in terms of trade, economic development, investments, migration, culture, knowledge and information**.

Photo: Xiaojun Deng - Thimphu (Bhutan).

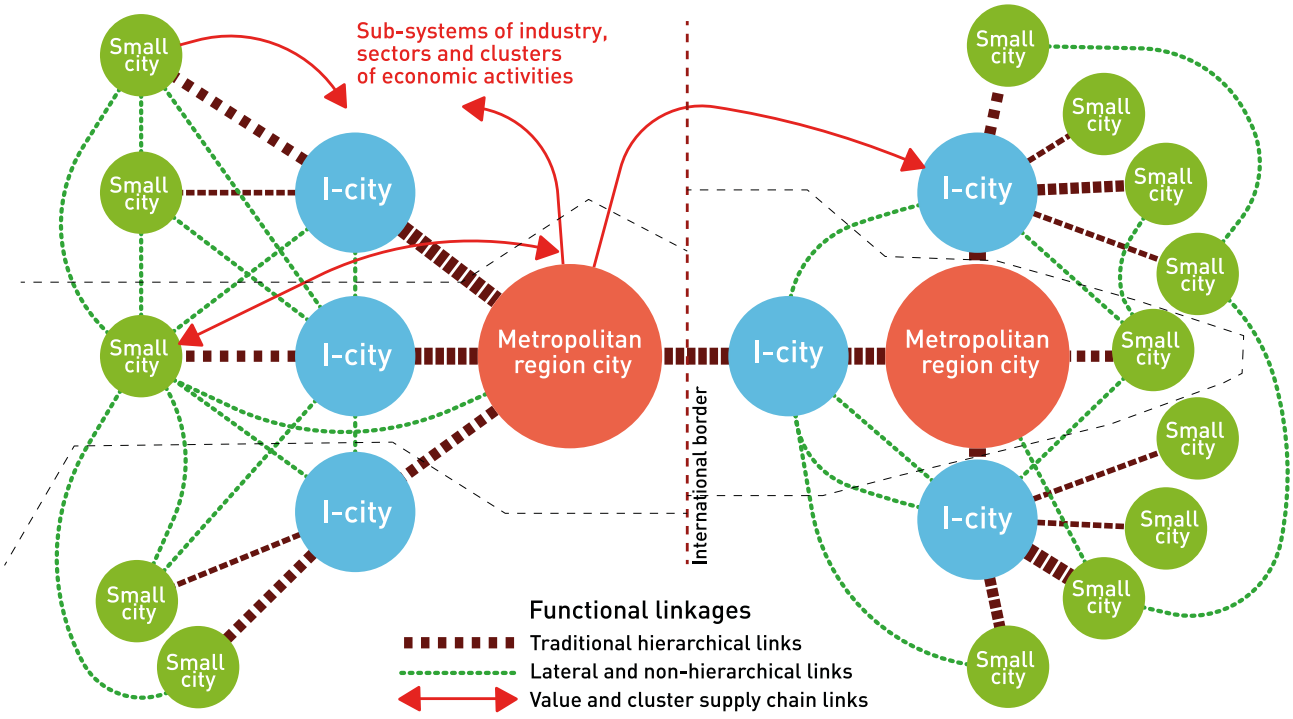
Figure 3.1 shows that, while many elements of functional urban hierarchy remain, there are more and more lateral connections within and between countries. Both national and global systems of cities now comprise a complex mesh of ever-changing hierarchical and non-hierarchical structures and relations, based on a series of hubs, spokes and loops. The internet and rise in the service economy are presenting new opportunities for different kinds of trade networks between cities, transcending national and international borders.

In light of these emerging new patterns, when we consider what shapes the spatial patterns and scale of development in national systems of i-cities, we need to reformulate the very way we think about the relationship between scale, size and function, and the impact these have on urban systems. As discussed in Sections 1 and 2, there are three broad categories of i-city: sub-national i-city nodes, clustered i-cities, and i-city corridors.

Each of these plays a different and critical role in shaping the demographics, economics and nature of national systems of cities and national development. There are overlaps between the three categories, and some extend beyond national boundaries as part of the international systems of i-cities.

This section presents a brief overview of systems of i-cities (monocentric, bicentric, polycentric, coastal, inland, landlocked, clusters and corridors).[117] Where possible, it will refer to national and regional urban policies and practices used in different world regions to respond, positively or not, to the challenges of urbanization and the needs of i-cities. **The goal here is to explore how i-cities can play a much stronger role in the development and functioning of national and regional systems of cities**. The concluding remarks summarize the most important messages about the national and regional systems of i-cities, as well as their crucial importance in shaping the New Urban Agenda for the next decades.

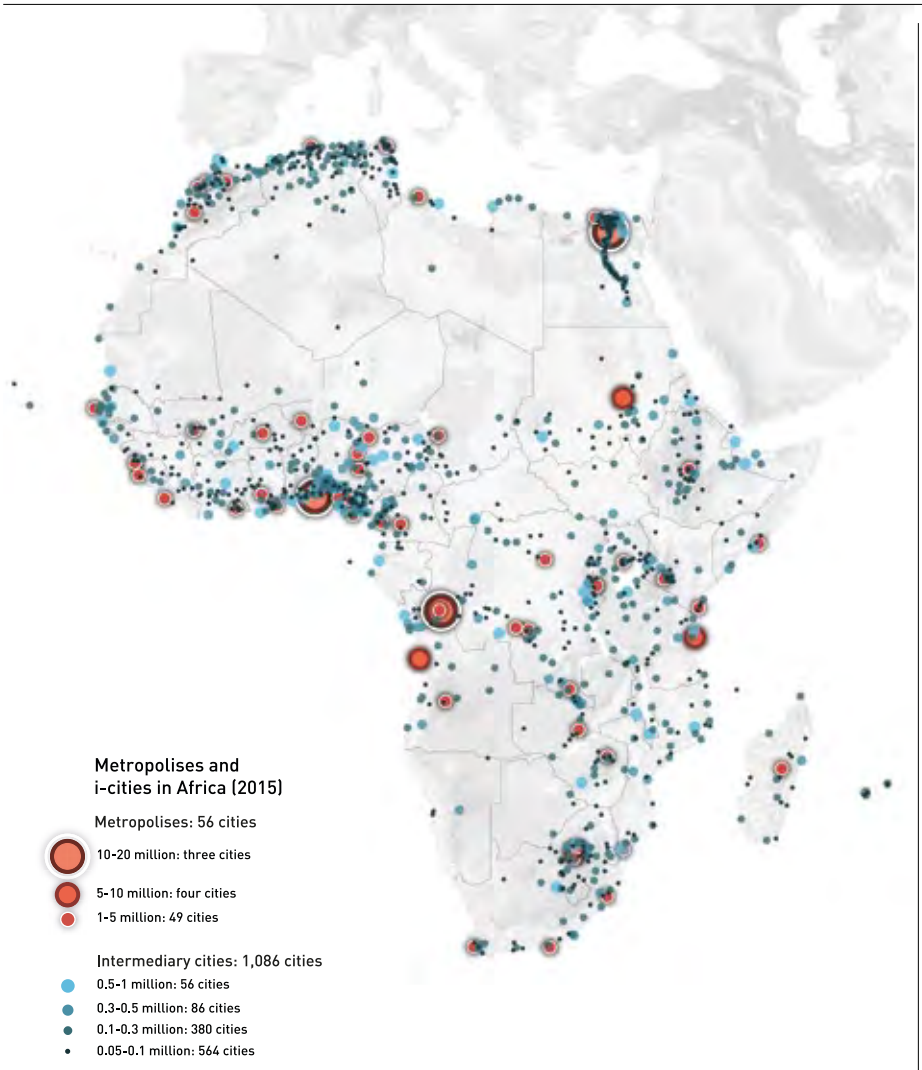
Figure 3.1 **Hierarchical and non-hierarchical systems of cities**

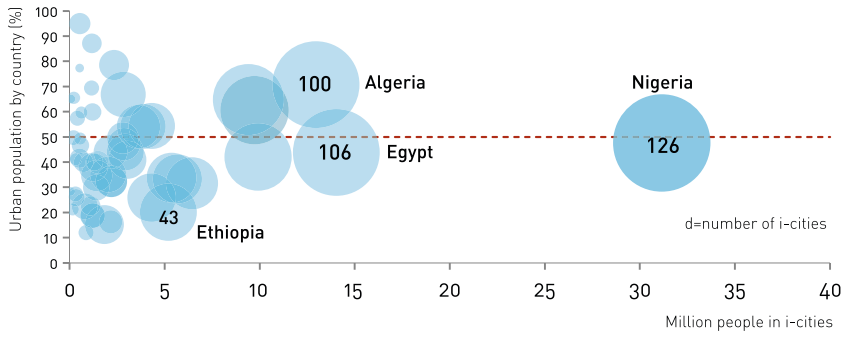


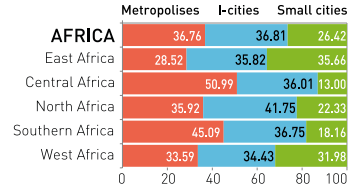
3.1
URBAN SYSTEMS AND INTERMEDIARY CITIES IN AFRICA

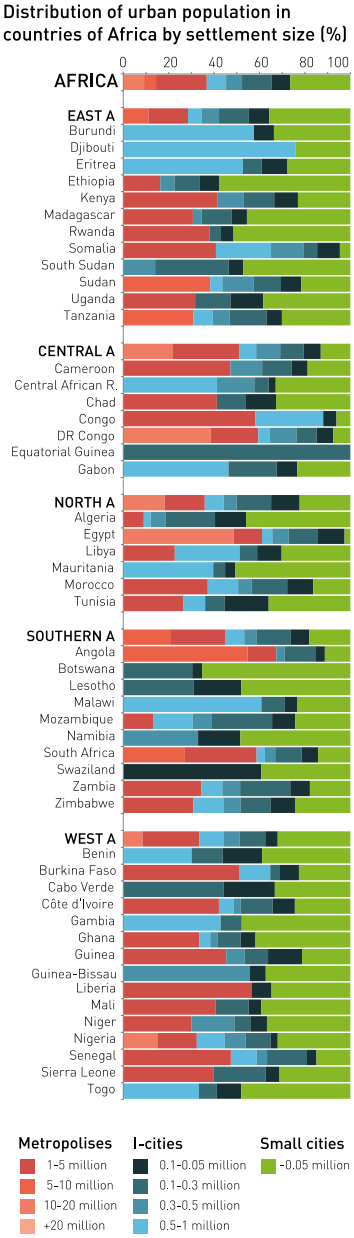
Figure 3.2 **AFRICA urban agglomerations and distribution of population by settlement size**

Source: UCLG and CIMES-UNESCO









3.1.1 Spatial integration and functional balance of African i-cities

Africa's 1,086 intermediary cities are home to 174.8 million people, approximately 36.8% of the continent's total urban population. This figure is close to the number of people that live in Africa's 56 metropolises (174.5 million inhabitants, 36.7% of the total urban population), but more than the population of inhabitants of small cities (125.4 million, 26.4%). In Northern Africa (where 56% of the people live in urban centres, making it the most urbanized region of Africa), i-cities host a significant quota of the urban population (42%). This compares with 36% living in metropolitan areas and 22% in smaller cities (fewer than 50,000 inhabitants).

In contrast, in Southern and Central Africa, where 44% of the population live in urban areas, the majority of the urban population (45% and 51% respectively) live in metropolitan areas. Meanwhile, i-cities host around 36%, and small cities, between 13% and 18% respectively. In East Africa, a generally more rural area, only 26% of the population live in cities. Here, the structure of urban distribution is inversed: most people live in intermediary and small cities (35% and 36% respectively), while 28% of the urban population live in metropolitan areas. Finally, in Western Africa (with 45% of urban dwellers), the population is well-distributed between metropolitan areas, intermediary and small cities (33.6%, 34.4% and 32% respectively). Important differences within each region still exist, however, with a significant polarization of urban systems.

In most countries across the continent, one or two metropolitan areas clearly dominate, hosting 33% or more of the urban population (monocentric or bicentric systems)

Monocentric/polycentric regional spatial structure in Africa

In most countries across the continent, one or two metropolitan areas clearly dominate, hosting 33% or more of the urban population (monocentric or bicentric systems). This is particularly true in the case of Central Africa (Cameroon, Chad, Congo and the DR Congo), many countries in Eastern Africa (Kenya, Madagascar, Rwanda, Somalia, Tanzania, and Uganda), Western Africa (Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Liberia, Mali, Senegal and Sierra Leone), and Southern Africa (Zambia and Zimbabwe). In Northern Africa, Egypt presents similar characteristics.

In South Africa, however, 59% of the population live in metropolitan areas, distributed in six main large agglomerations. In Northern Africa, urban systems are generally more balanced, thanks to a strong presence of i-cities: 46.4% of Morocco's urban population are concentrated in the country's 62 i-cities; over 90% of Algeria's urban population reside in either intermediary or small cities. Significantly, in Nigeria, Africa's most populous country, 35.6% of urban population live in 126 i-cities. The preeminent role of large i-cities (between 500,000 and one million inhabitants) is key to its polycentric configuration of the urban system: '[A] more developed network of i-cities can contribute to balance the urban systems and support the urbanization that is currently taking place'.[118]

Coastal, inland and landlocked intermediary cities

The system of coastal intermediary cities plays a crucial role in the regional cohesion of North Africa and the most dynamic economies of the Gulf of Guinea. Almost all of North Africa's cities are concentrated in a strip measuring 200km that extends along the coastline following the Atlas mountain range and bordering the Sahara Desert. Approximately 80% of all cities in Algeria – a country with an important system of i-cities – are concentrated within this strip. In Nigeria, 60% of all i-cities are located around the metropolitan areas of Lagos and Ibadan, Benin City, Onitsha and Port Harcourt, which results in an especially dense and cohesive urban system.

On the other hand, a system of inland i-cities dominates the east, centre and south of the continent, structured around an extended network of navigable fluvial waterways. The Great Lakes area lies midway along an internal North-South axis that links Khartoum (Sudan) with Durban (South Africa) and, across five countries, hosts nearly one third of Africa's cities. On a smaller scale, the Nile Valley concentrates the urban system of Egypt, with 44 i-cities between Aswan and Cairo.

Africa has a significant level of more isolated regional i-cities that control an extended administrative area and have developed 'enclave economies'. Most of them sit in semi-arid areas at the northern and southern fringes of the Sahara Desert, as well as in the Congo Basin. Cities with a rich historical legacy and heritage, such as Gao or Timbuktu (Mali), Tahoua and Agadez (Niger), and Abeche (Chad) have prospered throughout the centuries. This is due to their role as cultural centres and their location within trade, mining and exchange areas

at the regional scale. Others examples of this are Sabha (Libya, located in an entirely desertic area), Tamale (Ghana), Bobo-Diulasso (Burkina Faso), Sokoto (Nigeria), and Saurimo or Luema (Angola). All have suffered from low levels of territorial interconnectedness.

Functional balance of African i-cities: clusters and corridors

Over the past few decades, **many African i-cities have experienced rapid demographic growth with the establishment of new economic activities and specialized services at a regional and global level**. This process has often elicited the emergence of regional and global clusters. Such clusters are generally characterized by a large number of small and micro enterprises active in both formal and informal sector economies. This is even though multinational companies still seem to be relevant for those i-cities that are strategically located in terms of transport and movement of goods. Tangier, for instance, a former i-city in Morocco, with strong automotive industries and logistical infrastructure, has turned into a metropolitan 'gateway' to Europe, as part of a national strategy of regional development based on regionalization and decentralization. Monastir and El Feidja (Tunisia) have created a regional textile cluster – the *Pôle de compétitivité Monastir-El Fejja* (Mfcpole) – and the establishment of new laboratories and R&D centres.[119]

Nnewi (Nigeria), meanwhile, surrounded by a cluster of satellite i-cities, is commonly known as Africa's 'Taiwan' or 'Japan', thanks to its strong automotive industry, universities and technical institutes.[120] Arusha (Tanzania) has grown into a regional cluster in the furniture industry. Similarly, Lake Victoria is one of main clusters of agriculture and fishing in the region within the larger influence of Kampala (Uganda) or the mid-sized i-city of Kisumu (Kenya). Mek'ele (Ethiopia), an i-city north of Addis Ababa, is a good example of a cluster in a landlocked economy, with a concentration of over 250 companies involved in the manufacturing of furniture, construction materials and agricultural machinery. The Gauteng region (South Africa) is a another good example of an emerging i-city cluster, close to the metropolitan areas of Johannesburg and Pretoria (e.g. Sasolburg, Potchefstroom and Klerksdorp are mid-sized i-cities historically anchored in mining).

A better understanding of i-cities and cluster arrangements outside the metropolitan core is necessary to appreciate the emerging opportunities for increasing social, financial and human capital on the African continent.

Africa's physical geography, together with the low levels of territorial interconnectivity of its inner transport network, has favoured the emergence of city corridors in specific geographical areas. These are mainly along the coast, as is the case with Northern and Western Africa, or inner city corridors in landlocked countries, traditionally linked to fluvial waterways, on a North-South axis from the Great Lakes area down to South Africa.

National frontiers, however, have been a barrier to cross-border trade and have hindered the formation of i-city corridors as a truly integrated regional urban system (e.g. a potential corridor of i-cities from Morocco directly to the Libyan i-cities of Misrata and Sirte through a corridor of Algerian and Tunisian coastal cities). In the Gulf of Guinea, a region-wide international corridor is connecting Abidjan (Côte d'Ivoire) with Port Harcourt (Nigeria) (see Box 3.1). Another relevant corridor is that which connects Nairobi (Kenya) with Juba (South Sudan). This includes 12 small and mid-sized i-cities, such as Eldoret and Kisumu (Kenya), and Lira and Gulu (Uganda) along its 600km extension. In Central Africa, the DR Congo's system of cities builds on the backbone of a 1,600km long internal corridor that connects the cross-border megacity of Kinshasa-Brazzaville with Lusaka, a metropolis in Zambia. Free trade agreements and investments in infrastructure are needed for these i-city corridors to further nurture and protect their development.

Cameroon, Egypt, Ethiopia and Nigeria all have examples of internal i-city corridors. One corridor joins 12 Cameroonian i-cities together, from Kumbo to Douala, and hosts over 60% of the country's total urban population. Egypt has developed three large corridors of i-cities as the backbone of the country's urban economic structure (e.g. the Cairo-Alexandria axis in the Nile Delta, the Suez-Ismaïla-Port Said axis along the Suez Canal and, though not well-structured yet, the Cairo-Aswan corridor in Lower Egypt).

Ethiopia, a largely rural landlocked country yet one of the continent's emerging economies, has developed three main structural urban axes to bolster its system of cities. These are: the Addis Ababa-Asmara corridor (Eritrea) as a natural gateway to sea access; the Addis Ababa-Berbera corridor (Somalia) to gain access to the sea, but compromised by regional military and

Mek'ele (Ethiopia), an i-city north of Addis Ababa, is a good example of a cluster in a landlocked economy, with a concentration of over 250 companies

BOX 3.1 WEST AFRICA TRADE COAST CORRIDOR

The United Nations Economic Commission for Africa (UNECA) and the African Development Bank (AfDB) have both acknowledged the growing importance of economic trade and development corridors in boosting trade relations and investments between cities and countries in Africa. The AfDB and the World Bank have made a significant contribution to funding trans-African highways to improve connectivity and economic trade along the Dakar-Lagos route, known as Highway 7 (4,010km). This provides access to 11 West African nations: Senegal, the Gambia, Guinea-Bissau, Guinea, Sierra Leone, Liberia, Côte d'Ivoire, Ghana, Togo, Benin and Nigeria. The trans-African Highway 7 plays a significant role in trade and economic opportunities across West African countries, serving as the area's most direct cross-country thoroughfare. I-cities are benefiting from the highway in terms of connectivity and, thanks to its infrastructure, some have evolved into important multi-modal nodes and transfer hubs for access to other landlocked cities and countries.

The management of the corridor is undertaken multinationally by regional economic communities: the *Union Economique et Monétaire Ouest-Africaine* (UEMOA) and the Economic Community of West African States (ECOWAS). While the continued improvements and extension of Highway 7 are stimulating the development of metropolitan regions and i-cities, there are still significant impediments to trade and investment along the corridor, not least certain poorly constructed or maintained sections.[121] Border crossing can take many hours, customs regulations and standards are not uniform, intermodal goods-transfer infrastructure and systems are not integrated, and the control of development along the highway is not regulated, significantly increasing congestion in smaller towns and i-cities along the route.[122]

security tensions; and the Addis Ababa-Arba Minch (Somalia), an internal rural axis. Nigeria is an interesting case, with the Abuja-Onitsha-Port Harcourt metropolitan corridor extending over 400km with i-cities of more than half a million inhabitants, such as Makurdi, Enugu and Aba. This corridor counterbalances Lagos' megacity and system of satellite i-cities economically, with both areas bordering the River Niger.

African i-cities will play a fundamental role in the coming decades, absorbing a significant part of the continent's urban and demographic transition and strengthening its economic integration and territorial cohesion. Even beyond the specific function of large metropolitan areas on the global level, the huge potential of the urban system of corridors and clusters of coastal and inland i-cities can be capitalized on, if the infrastructural deficits in their regional and international interconnections can be addressed. The political likelihood of transforming i-city clusters and corridors into free trade areas or special zones depends also on investment. This is especially true in those inland areas where inadequate governance frameworks and structural vulnerabilities have year after year been turning these regions into the planet's most fragile urban areas.

3.1.2 Trends and national urban policy responses in African i-cities

Following colonial developmental patterns, several African states either failed to alter or continued to favour the development of capital cities and large agglomerations linked to export activities. This prevented the creation of more even urban development with integrated networks of i-cities. A majority of African countries continue to depend on agricultural sector or raw materials exports, making their economies vulnerable to global volatility and competition. Regional conflicts and humanitarian crises elicited mass movements of rural communities to urban agglomerations in search of security and job opportunities. Over the past few decades, these trends have widened the gap between rural and urban areas.

In past decades, the many structural adjustment programmes imposed by the IMF on African countries have failed to take into consideration the spatial impacts of their measures. The low level of industrialization in larger cities in Africa – unlike for instance in South-eastern Asia – has prevented these cities from properly absorbing the growing demand for employment resulting from urban growth, particularly among the younger population. This population flow has been channelled towards informal economic activities and settlements. All this notwithstanding, **urban environments have nurtured an emerging middle class that, in turn, stimulates the rise of different kinds of service provision, economic access and governance organization.**

Institutionally, as a result of significant democratic reforms and decentralization

processes, elected local governments have emerged in a majority of African countries. Decentralization, however, has generally been partial and lacked a consistent pattern of empowerment both financially and in terms of governance for regional and local administrations.

These structural hindrances have prevented national governments from reaping the full benefits of a decade of impressive economic growth. Dependence on raw materials industries and exports should be being counterbalanced by adequate economic modernization – a process that would benefit from a context of well-connected, well-equipped, and economically efficient and diversified systems of cities. However, African urban societies face long-standing consequences of massive, disorderly urban growth. Slums and informal settlements – dominated by insecurity of tenure, lack of essential services and infrastructure, and deficient application of planning and regulatory provisions – characterize most African cities.[123] African countries face the challenge of sustainably transforming the rural-urban balance of their economies and transitioning towards a fully-fledged urban society, where urban needs and demands are met.

Africa's urban and demographic transition, moreover, has not been equally distributed across the continent. Certain urban economies in industrialized areas of North Africa, e.g. Morocco and Algeria, have long been competitive with industrialized areas in Southern Europe. However, they have also had to adapt to the events and uncertainties triggered by the aftermath of the Arab Spring. On the other hand, many countries in Sub-Saharan Africa have shown structural difficulties in upgrading their own NUPs to changing demographic and economic scenarios.[124]

Many African i-cities have been exposed as incapable of creating sustainable prosperity for their populations. Lacking the administrative capacity or the financial resources to tackle informality and precariousness directly, smaller settlements have historically been unable to manage the effects of these trends.

In light of such effects, it has increasingly been emphasized that African nations need to have adequate institutional frameworks and NUPs to promote more even urban and territorial development at national and regional levels. Sixteen African countries have been developing NUPs in the last decade. While a few trailblazing countries are setting the pace on the role of i-cities (e.g. Algeria, Ethiopia, Madagascar, Morocco, Rwanda, South Africa), others have reserved a spot for intermediary cities and their development in their national roadmaps. Benin, Ghana, Mali, Niger and Uganda have created new opportunities for i-cities to improve urban management and rationalize investment in infrastructure (see Box 3.2).[125]

Decentralization, sustainable growth, urban networking and coordination are all integral to the recommendations to tackle Africa's future urban challenges. The Summit of the Heads of State and Government of the African Union approved, in June 2014, the African Charter on the Values and Principles of Decentralization, Local Government and Local Development.[126] The Abuja Declaration, reaffirmed as recently as February 2016 by African UN Member States in the preparatory proceedings of Habitat III, presents 'Africa's Priorities for the New Urban Agenda'. It acknowledges the need for an integrated vision of Africa's human settlements that spans the rural environment, intermediary cities, as well as metropolises. The Declaration is one of the latest steps in the direction set out by the 'African Agenda 2063'. This strategic document, promoted by the African Union, serves as a roadmap for the continent's long-term socio-economic development, in which urbanization is recognized as a crucial driver of innovation, and cities are imagined as the vibrant backdrop of integrated economies and 'a major driving force for the continent's transformation'.[127] However, while Agenda 2063 imagines 'cities and other settlements' as 'hubs of cultural and economic activities, with modernized infrastructure' and whose people 'have access to affordable and decent housing including housing finance together with all the basic necessities of life such as, water, sanitation, energy, public transport and ICT',[128] more attention should be paid to the role of emerging i-cities.

Ultimately, the role of African i-cities is essential, even in spite of their absence from the continent's national agendas and priorities. Beyond acknowledging that i-cities are the 'missing link' or the 'invisible' factor in African countries development strategies, NUPs need to prepare for the 250 million new urban dwellers that will be absorbed by its growing number of intermediary cities over the next two decades. This process may definitively transform the existing rural-urban links, promoting the development of surrounding rural areas, improving access

Institutionally, as a result of significant democratic reforms and decentralization processes, elected local governments have emerged in a majority of African countries

BOX 3.2 NATIONAL URBAN POLICIES IN AFRICA

The 16 African countries that have been developing national urban policies (NUPs) in the past decade are: Algeria, Benin, Burkina Faso, Cote d'Ivoire, Ethiopia, Gabon, Ghana, Malawi, Mali, Morocco, Niger, Rwanda, Senegal, South Africa, Swaziland and Uganda.

South Africa, for example, until recently lacked a consistent NUP since rural development was considered a top priority. A first attempt to introduce an NUP was made in 2009 and backed up in 2013 when the government began work on a new integrated urban development framework (IUDF). The IUDF requires that every city formulate a 30-year long-term growth and development strategy (GDS). Seven components will provide the policy mechanisms to promote change: basic infrastructure networks, inclusive economic development, integrated transport and mobility, integrated human settlements, land management, social transformation and urban governance. The priorities, concerns and capacities of the smaller municipalities, including their inadequate financial resources, have prompted debate. The South African Network of Cities (SACN) asks for more flexible and multi-layered categorizations to better take into account the reality and vulnerabilities of i-cities, acknowledging their role in both national development and rural development policies to foster cross-sector integration.[129]

In the latest of a series of strategic documents,[130] Nigeria created a national urban development policy (NUDP) in 2012. The aim of the NUDP is to promote a dynamic system of urban settlements that fosters sustainable economic growth, promotes efficient urban and regional planning, and ensures improved standards of living and wellbeing for the Nigerian people. The NUDP presented 18 key strategies and actions to be implemented at all levels of government in the short, medium and long term. A priority strategy was to establish an institutional framework to ensure the orderly development and management of urban settlements. A hindrance in this process, however, has been a structural issue with decentralization and the allocation of funds and resources to local authorities.

Rwanda has made impressive development progress since the 1994 genocide and civil war, including high economic growth, rapid poverty reduction and reduced inequality. In this regard, the NUP approved by the Rwandan government cabinet in December 2015 defines the strategies for national human settlement development under conditions of economic growth. Rwanda is functionally 'using' i-cities to prepare its transition to a fully urban society. Rwanda's NUP takes into consideration the principles of efficient administration, seamless participation of communities, strong human resources and sustainable planning. As such, it is divided into four pillars which illustrate the cross-cutting nature of urban development: **coordination** to ensure multilevel institutional cooperation; good governance and effective urban planning and management; **densification** to use land efficiently and integrate green developmental principles for efficiently serviced urban neighbourhoods, at the same time preserving valuable natural and agricultural resources; **conviviality** to ensure social inclusion and cultural preservation; and **economic growth** guided by green economic criteria, whereby urban areas are centres of innovation and entrepreneurship and sources for socio-economic services and opportunities.

Ethiopia is actively managing an urbanization process to become a predominantly urban country over the next 20 years. A national urban agenda has been part of the growth and transformation plan (GTP) that aims to make Ethiopia a middle-income country by 2023. This urban agenda includes spatial and economic strategies, infrastructure development and the empowerment of local governments. The plan has linked Ethiopia's economic and spatial strategies together for the first time, identified strategic growth corridors and set up an organized 'hierarchy' of urban centres. To ensure that Ethiopia's urbanization is socially and economically inclusive, climate-resilient and environmentally efficient, a main emphasis has been on service delivery and economic performance. Its Urban Local Government Development Programme is a key part of the national urban strategy. Funded by the national government in partnership with the World Bank, the programme wants to bolster local governments in urban areas while further acknowledging their role. This commitment is accompanied by fiscal decentralization measures and the ambition for Ethiopia's future metropolitan areas to be 'green', well-governed drivers of economic and social development. The programme has targeted 16 urban centres of fewer than 500,000 inhabitants to develop tourism and the manufactural sector.

By 2013, Madagascar had created 13,000 new jobs through an investment wave that touched on water supply, mobility and transport, vocational training and education in i-cities, in order to set up a functioning regional network of urban communities. Morocco supported the expansion of tourism and other industrial sectors in Tangier and Meknès, while a new regional plan will support peripheral cities in the Casablanca area.

to public services, and linking smaller towns and the rural economy to national and international markets. I-cities can also alleviate the congestion of metropolitan areas, by retaining rural migration and developing a more active role as regional or provincial socio-economic hubs. Lower tiers of governance need awareness to harness the potential and respect the needs of functioning economic corridors and specialized i-city clusters – a pre-condition for the growth of infrastructural investment and easier cross-border trade. The transition from a rural society to a developed urban economy depends on adequate integration of cities' hinterlands and rural surroundings.[131]

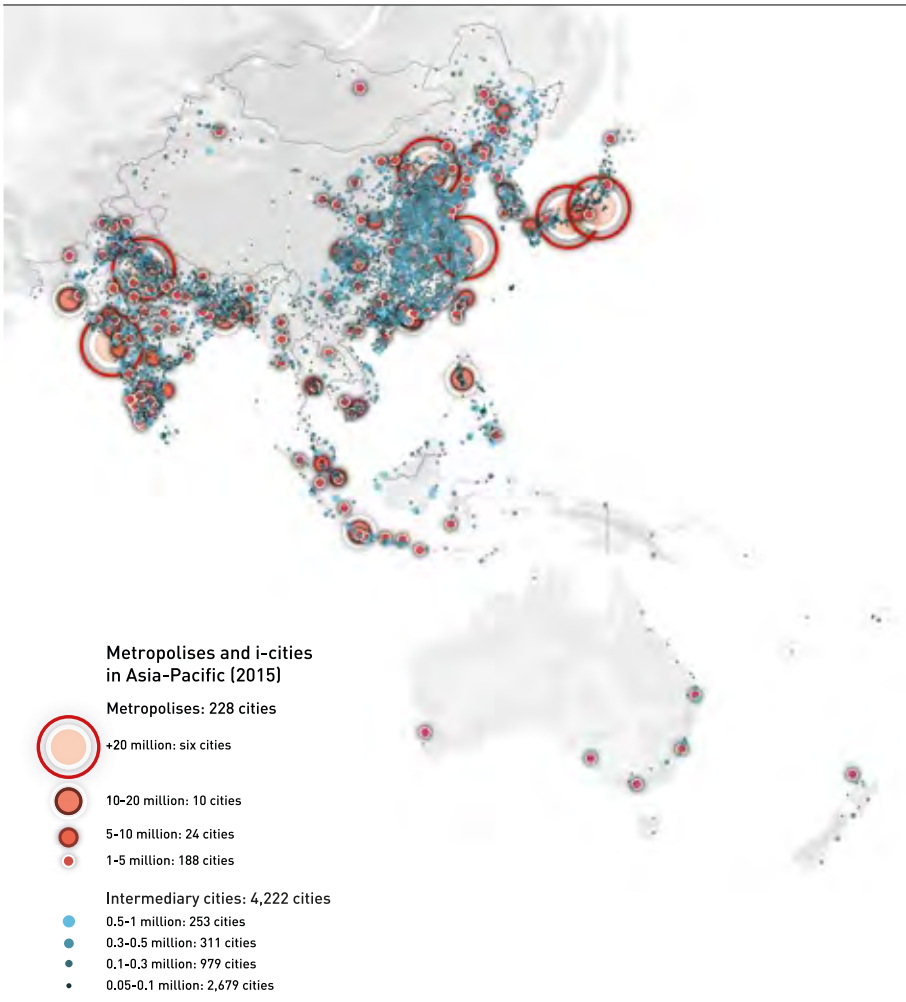
Similarly, NUPs must recognize the relevance and function of i-cities as regards the territory's social cohesion and economic integration. In the most dynamic regions of Northern, Eastern and Western Africa, the share of population in i-cities is already similar to or greater than in metropolises. Many of these countries will have to wager on their economic modernization without industrialization, by improving agricultural productivity and investing in services and innovation. In this regard, technology plays a fundamental role in the economic decentralization of territories that are more often than not weakened by a deficient transport infrastructure. I-cities have to step up in providing strategic connectivity in energy and telecommunications, strengthening their local development, while reducing the social and environmental vulnerabilities that are inherent in the rapid **urban expansion processes** in the years to come.

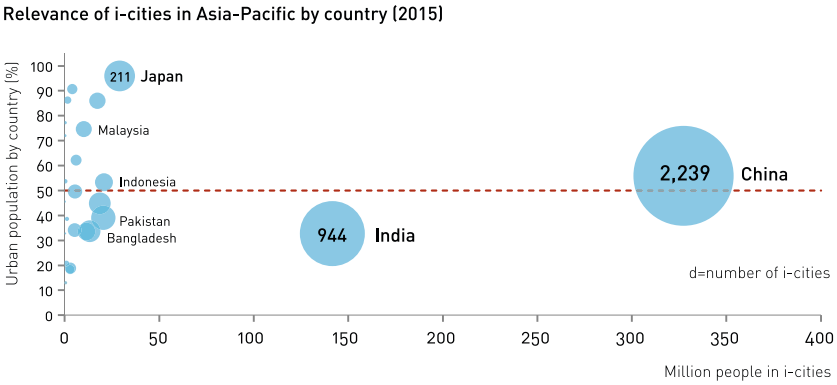
Photo: Bikejuju - Nampula (Mozambique).

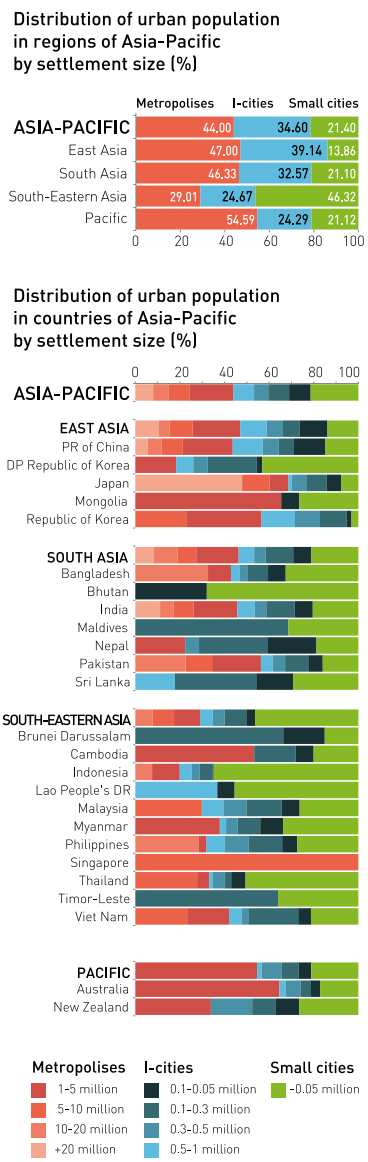
3.2
URBAN SYSTEMS AND INTERMEDIARY CITIES IN THE ASIA-PACIFIC

Figure 3.3 **ASIA-PACIFIC distribution of population by settlement size and urban population weight in i-cities**

Source: UCLG and CIMES-UNESCO. For China and India, see more details in figure 3.3. bis







3.2.1 Spatial integration and functional balance of Asian-Pacific i-cities

Asia-Pacific comprises four large sub-regions: Eastern, Southern and South-eastern Asia, and the Pacific. It is the biggest and most densely populated region of the world (54% of the global population and 46.2% of world urban dwellers), with an enormous variety of geographic, cultural, economic, climatic and political landscapes. China, India, Indonesia and the Philippines are amongst the most populous countries on Earth, while the Pacific Island states of Nauru, Tuvalu and Palau are some of the least. The region puts a 100% urbanized compact city state like Singapore together with de-urbanizing (-1% urbanization rate in 2011) low-density island states like Samoa, landlocked ones like Mongolia, and a dispersed mountain state like Nepal. The Pacific region, often referred to as Oceania, is the largest but least populated region.

Asia's systems of i-cities are much larger, concentrated, diverse and complex than in other continents. The region includes 222 metropolises that are home to 49% of the world's population living in metropolitan areas, as well as 16 of the 29 megacities with over 10 million inhabitants. It also has the most i-cities of all the regions (4,177 cities with 635 million inhabitants, making up 44.5% of the world's population that are settled in i-cities). In the Pacific, on the other hand, i-cities outside of Australia and New Zealand tend to have small populations and low density, often separated by thousands of kilometres and with populations of less than 100,000.

In the global recount of intermediary cities, China and India's demographic dominance is absolute. China and India have 2,238 and 944 i-cities respectively, i.e. 35% of all of the world's i-cities. Japan, the third largest economy and one of the most urbanized societies in the world, is a late follower (211 i-cities). Emerging economies with low urbanization levels follow suit, e.g. Pakistan (134 i-cities), Bangladesh (105), the Philippines (104), Indonesia (72) and Vietnam (71). There is however, a higher concentration of i-cities in China's eight most populous provinces – with 1,467 i-cities and around 200 million inhabitants – than in the whole of Northern America and Europe. These data do not even take account of the fact that, by Chinese standards, cities of two to three million inhabitants are generally considered to be 'mid-sized'. Similarly, it is estimated that India's urban population will increase by 160 million inhabitants by 2030 (about 30,000 people per day), and 44% of this projected inflow will settle in i-cities. The percentage of population living in urban areas in India, however, is expected to reach 39.5% by 2030 (currently, 67.3% still live in rural areas) and only pass the 50% threshold in 2050.[132]

The level and rates of development of i-cities across the region, therefore, vary enormously. Some medium-sized i-cities of fewer than 500,000 inhabitants are growing relatively fast. Cenxi (China) is increasing at a 5.5% yearly rate, Ambon (Indonesia) at 4.95%, and Begusarai (India) at 8.8% per year. On the whole, urban population growth in i-cities from 2000 to 2015 has been higher than in metropolitan areas but not than in megacities (see Table 2.1 in Section 2) e.g. 1.9% to 3.4% per year compared with 2.2% to 3.1% per year. Over the next 15 years, however, metropolises of between one and five million inhabitants are expected to grow faster than i-cities, especially smaller ones.

Monocentric/polycentric regional spatial structure in the Asia-Pacific

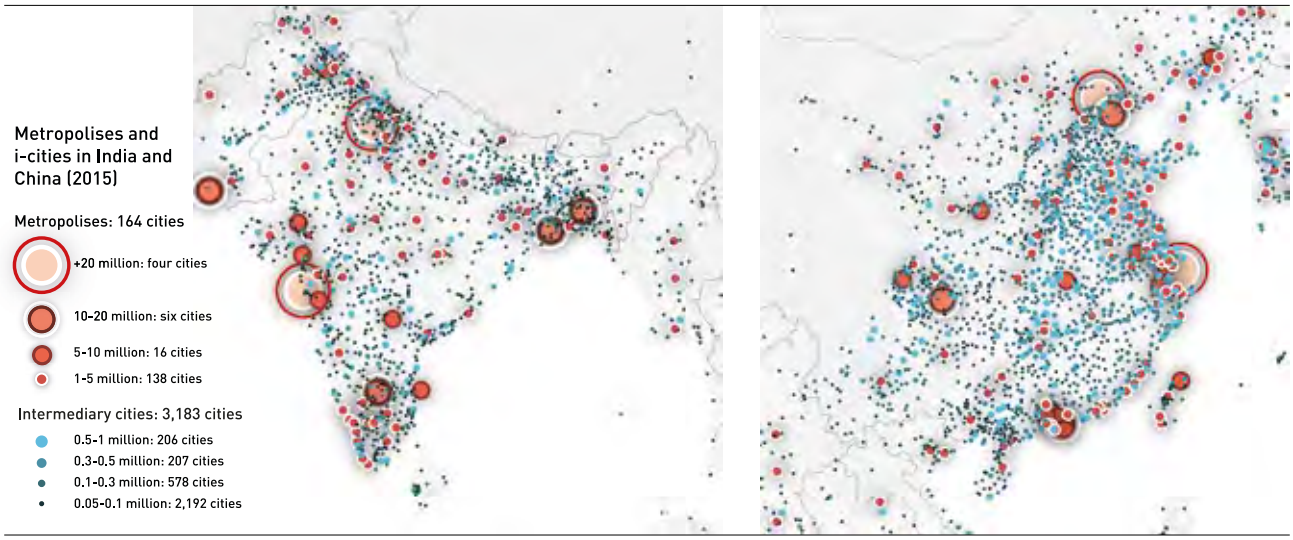
There are important differences in the structure of systems of cities in the region. In general, East Asia has a much more uniform structure compared with that of Southern and South-eastern Asia. Perhaps the greatest deviation from the hierarchical structure of systems of cities in South-eastern Asia is due to the archipelagic structure of its two most populous countries, Indonesia and the Philippines. In Southern Asia, the system of cities follows a more uniform hierarchal structure than in South-eastern Asia, partly explained by the federal form of government of important countries in the area, such as India and Pakistan.

In the case of China and India, however, it may be more appropriate to analyze their systems of cities from a regional perspective because of their demographic relevance and structure (see Figure 3.3 bis). China's most populous province, Guangdong, has a polycentric urban configuration. It hosts 15 metropolises of more than one million inhabitants (74% of the province's urban population), of which two – Guangzhou and Shenzhen – are megacities with more than ten million people. Together with bordering Hong Kong and Macau, the province forms one of the world's most populated urban areas. On the other hand, several interior

Asia's systems of i-cities are much larger, concentrated, diverse and complex than in other continents

Figure 3.3 bis **CHINA and INDIA distribution of population by settlement size and urban population weight in i-cities**

Source: UCLG and CIMES-UNESCO



provinces have a monocentric system: Chongqing, for instance, gathers 60% of its total urban population to its capital city. The Tianjin province, close to the Beijing area, is a similar example, as its capital city is 35 times larger than its second largest city.

India's federate states have generally strongly polycentric urban systems, next to a compact network of i-cities that have benefitted from their proximity to both larger metropolitan agglomerations and the rural environment. In 2012, India had 54 metropolitan cities that accounted for 13% of the population. Together with their hinterland and the i-cities located in it, these metropolitan areas concentrated 40% of the national GDP. Both their number (forecasts show 69 metropolitan areas by 2025) and economic relevance are expected to grow (it is calculated that by 2025 they will concentrate half of India's GDP).[133] The development of i-cities, especially those located around metropolitan areas, will thus significantly affect India's economic development. Other South-eastern Asian developing economies with low urbanization levels, like Myanmar, the Philippines, Thailand and Vietnam, concentrate a significant part of their urban populations in capital cities but at the same time foster an extensive network of intermediary and small cities with a strong link to rural areas. The Philippines has two metropolitan poles: the metro area of Manila in the north, a megacity of over 13 million inhabitants, and Davao in the south, with 1.6 million residents. Between these two cities, a long corridor of 104 i-cities, together with smaller towns, concentrates 68% of the country's urban population.

Coastal, inland and landlocked i-cities

A feature of the geography of i-cities in the Asia-Pacific region is that many of them are located on low-lying coastlines or along large, long navigable rivers. Consequently, many have ports, which play a crucial role in national logistics systems and servicing inland areas. Many i-cities in emerging economies of the region feature low-rise constructions and relatively high rates of urban growth. This is eliciting sprawling and poor planning, as well as poor-quality urban services and housing. In the developed economies of Japan, Korea, Australia, and New Zealand, **i-cities are generally better planned and have relatively good urban infrastructure and services. There are more efficient national connectivity systems and a much greater focus on risk management, densification, improved building construction and energy efficiency**.

Coastal i-cities in the region have developed a broad mix of economic activities. Eastern Asian countries experienced a thriving commercial and industrial development generated by export processing zones (EPZs). Transaction costs for i-cities, however, tend to be higher than in metropolitan regions, due to inefficiencies in supply chains. Moreover,

arterial road systems and access to transport logistics between metropolitan areas and i-cities tend to be heavily congested due to high vehicle ownership rates, even in more developed countries. While the whole Asian region has been increasingly susceptible to environmental threats, exposure to natural disaster (e.g. tsunamis, earthquakes and hurricanes), pollution of waterways, high incidence of water-borne diseases in tropical regions, and flooding during the wet seasons have been particularly menacing for coastal i-cities. Rising sea levels in Pacific islands has vastly affected economic performance, stability and the wellbeing of the citizenship.

Inland i-cities of Asia are growing at a slower pace than coastal i-cities. In China, for example, coastal i-cities are growing at rates around 2.7% per year, compared with a rate of 2.4% rates for inland, non-river port i-cities. Many of these inland i-cities are industrial or resource-rich regional centres, or agricultural regions, for instance, in the case of Australia. Most Indian i-cities are concentrated in inland Uttar Pradesh, Bihar and West Bengal states, located in the vast plains around the River Ganges, which host one third of the country's total population. Uttar Pradesh alone, inhabited by approximately 200 million people, has 124 i-cities with a population of 17 million – comparable by and large to the total population of its nine metropolitan areas.

Many i-cities in Asia have transitioned from an agricultural tradition or administrative relevance into mixed industrial centres, thanks to rapid urban growth – which also led many of these centres to pass the 'one million inhabitant' threshold. In many Asian developing economies, inland i-cities are often located along national arterial transport networks. Poor logistics and access issues due to inadequate or ageing infrastructure have had an impact on the competitiveness, productivity and growth of these inland i-cities. Many smaller inland i-cities in the region, especially in Southern and Eastern Asia and Australia, are experiencing a significant slowdown in urbanization and economic growth rates, mostly as they struggle to retain skills and attract investment capital.

Nepal, Bhutan, Laos and Mongolia are four landlocked developing countries in the Asia-Pacific region. Nepal is the most populated (29 million inhabitants) and the least urbanized (only 20% of the population live in urban areas), while in Mongolia, 75% of the population live in urban areas. Both primary and intermediary cities in these countries are generally constrained by weak regional networks of road and air transportation and insufficient access to ports in bordering countries. Many rely on imports, have high informal sector economies and lack basic infrastructure. As a result, landlocked i-cities in Asia tend to struggle with their own development while, at the same time, they have had to find resources and capabilities to accommodate increasing numbers of rural-to-urban migrants in the face of increasing economic urbanizing pressures.

Functional balance of Asian-Pacific i-cities: clusters and corridors

I-city clusters are a significant recent development in the systems of cities in Asia and – to a lesser extent – Australasia. Most large metropolitan areas have a cluster of i-cities within a range of 75-150km from their centre. Many of these i-cities clusters have been planned as growth nodes or poles, such as Clark and Angeles City, 85km north of Manila (Philippines). Clark was a former United States' military base, which has been re-planned as and transformed into an important EPZ. It is one of several EPZ cities of the Philippines, like Subic Bay and Cavite, concentrated around Manila's metropolitan area.

In some countries, governments are promoting clusters of i-cities to serve as regional growth nodes and take advantage of spill-overs from megacities. High levels of public investment and involvement have been necessary to support their initial development. In some cases, governments have combined this strategy with PPPs and land development. The large metropolitan regions of Beijing, Shanghai (China), Bangkok (Thailand), Ho Chí Minh City (Vietnam), Delhi, Mumbai (India) and Dhaka (Bangladesh) are all planning and developing i-city clusters to take the pressure of development off metropolitan regions.[134] Clusters close to metropolitan areas are key for the Indian economy. India's 49 metropolitan clusters extend beyond metropolitan districts, and have grown to include 250 of the country's 450 i-cities with more than 100,000 inhabitants. These clusters could account for about 77% of India's GDP growth from 2012 to 2025.[135]

Corridor i-city development has been a significant feature of urban expansion in Asia and Australia. Many i-city corridors, however, are the by-product of poor regional planning and developmental control. Some i-city corridors are long and continuous in

In 2012, India had 54 metropolitan cities that accounted for 13% of the population. Together with their hinterland and the i-cities located in it, these metropolitan areas concentrated 40% of the national GDP

shape e.g. the urban corridor between Hồ Chí Minh City and Vang Tau in Vietnam, which spreads almost 100km. A similar i-city corridor development is taking place in Sri Lanka, between Colombo and Galle; in Thailand between Bangkok and Rayong, and between Manila and Batangas in the Philippines.

In Japan, Korea, and Australia, corridor i-cities are still growing, expected to eventually link up together, as is occurring in South-East Queensland, Australia. The Indian government is planning its largest i-city corridor development so far, between Delhi and Mumbai, to include 170 million people, with over 40 new or expanded i-cities and eight dedicated 'investment regions' for industrial development.[136] In Gansu, a Chinese interior province that borders with Mongolia, the urban system is articulated in 36 i-cities along 1,000km of connectivity infrastructure between Tianshui, its capital city Lanzhou, and Jiuquan, forming an extensive specialized corridor in the mining industry.

Corridor i-cities in Asia, however, are proving very challenging to manage. They tend to form as small towns along the main thoroughfares between metropolises and large regional i-cities and then grow off strip-market development, often with high levels of specialization and clusters of activities appearing in different parts of the corridor. Eventually, the corridor becomes a continuous system of expanded towns and villages that form linear i-cities. This frequently blurs the limits and boundaries of corridor i-cities, and many of these end up suffering from the very elements that made their development possible. Traffic congestion, growing water and air pollution and decreased economic efficiency are all common symptoms of unbalanced or deficient development in this kind of urban settlement.

China's urban areas have grown at an unprecedented rate, and will continue to do so in the coming decades

I-cities in Pacific Islands

A quick note is necessary about the urban systems and i-cities of Pacific Island states. In these small countries, systems of cities tend to revolve around the capital city, often with fewer than 100,000 inhabitants. Urban development is generally characterized by low density, with growing levels of informal settlements. Most port/airport i-cities have grown reliant on tourism and governmental policies to drive economic development. Distance, poor logistics and a generally low skills base – together with extreme vulnerability to climate change effects – have hindered the development of i-cities' economies in Pacific Island nations.

3.2.2 Trends and national urban policy responses in Asia-Pacific i-cities

The diversity of Asia-Pacific countries makes it hard to analyze NUPs in the region without emphasizing the importance of economic and social contexts, as well as the variation and differences in their design and implementation. Most countries are confronted with the effects of urbanization, i.e. spatially unbalanced urban development; rural-to-urban migration; increased concentration in the main metropolitan agglomerations; development of urban slums; and inadequate infrastructures and urban services, particularly in peri-urban areas of metropolises and i-cities. Even those countries that do not show high levels of urbanization will experience increasing rates in the coming decades. **Most of them are being dramatically affected by the impending challenges of climate change, increased disaster exposure, and short-term environmental sustainability** – especially in the Pacific Ocean's archipelagos and island states.

During the last decades, many countries in the region strengthened the role of local governments in urban management, particularly through decentralization (Indonesia and Philippines) or increasing local administrative and fiscal autonomy (China and Vietnam). Developed countries in the region have also emphasized the role of their local governments. Decentralization processes, however, have not been fully completed (or have even regressed) in India, Malaysia, Pakistan, Sri Lanka and Thailand. Here, state, provincial and central governments concentrate most power and resources. In other countries, local governments are still at an embryonic stage.

Countries in the region are, however, moving towards the development of more coherent urban policies. Centralized governance systems and smaller states tend to put national urban development policies in the hands of central government. Some federal states, or at least those whose structures fit a more fragmented model, have favoured a more decentralized urban policy approach. Lastly, large economies with significant socio-political weight like China, India or Indonesia do not even have proper NUPs but rather have relied on national plans and/or sectorial initiatives. Thailand

has not developed any NUP, meanwhile the Bangkok Metropolitan Authority has designed its own policy instrument to deal with urban development issues in the area.

China's urban areas have grown at an unprecedented rate, and will continue to do so in the coming decades. Its urban system follows a concentrated blueprint that raises important questions, such as how to deal with unbalanced territorial development, increasing social inequalities and environmental issues. Among the challenges for urban policies in China in the next few years are the need for more efficient and greener urban planning; local public finance reforms; social inclusion – in particular the 'unrecognized' status of rural migrants accessing the cities – as well as better land management for urban expansion, and improved coordination of urban policies. It is worth noting that, since December 2014, the *hukou* system is being reformed to facilitate regulation in small towns and intermediary cities.[137]

Conversely, India – despite its fast-growing economy – is urbanizing at rates that are below those of other developing countries and, at this pace, is only expected to pass a 50% urban population threshold in 2040. Larger cities are confronted with extreme inequality, extensive slums, inadequate infrastructures and deficient essential services. Launched in 2005, the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) is probably the closest India has had to an NUP. It brought about a significant 'paradigm shift' by introducing cities into national development objectives and establishing a USD 24 billion investment programme through a seven-year period.[138] The JNNURM was replaced in June 2015 by the 'Smart Cities Mission', with the aim of assisting the development of 100 cities through a USD 15 billion investment (see Box 3.3).

Instead of a comprehensive NUP, Indonesia is building on key governmental plans[140] to gather adequate human, financial and administrative resources and political consensus to support metropolitan areas and small cities shifting to a local development approach. The geography of the country, moreover, requires urban policies to tailor development measures to a scattered archipelago extending right across the region and hosting one of the world's largest populations. Similar challenges have confronted the Philippines, whose urban policies[141] suffer from problematic horizontal and vertical collaboration among local authorities and with central government. Informality is still a sensitive issue in the country; access to basic services and infrastructures is insufficient, and a lack of financial and human resources has prevented an effective, consistent response to urban challenges. This is all the more necessary as human settlements across the country are increasingly threatened by recurrent natural disasters.[142]

Developed countries in the region such as Australia and New Zealand have been adopting NUPs. Australia's 2011 'Our Cities,

BOX 3.3 SMART CITIES MISSION: INTERMEDIARY CITIES IN THE URBAN AGENDA OF INDIA

The 'smart' cities involved in the Indian government's recent plan share a few characteristics that aim at comprehensive urban development. These features revolve around investment in basic infrastructure, robust IT connectivity, e-governance and citizen participation. This will promote **mixed land use** in area-based developments; policies for **housing and inclusiveness** that expand housing opportunities for all; **walkable localities** to reduce congestion, air pollution and resource depletion, while also **boosting the local economy**, promoting social interactions, and ensuring more security. The programme also aims at **preserving and developing open spaces** like parks, playgrounds and recreational spaces to enhance the quality of life of citizens, reduce the urban heat effects and promote a better overall eco-balance. The Mission aims to **promote a variety of transport options** – transit-oriented development (TOD), public transport and last-mile para-transport connectivity. The Mission's expectations rest on the goal of a **more citizen-friendly and cost-effective governance** that increasingly relies on online services to strengthen accountability and transparency. Smart cities within the Mission seek **an identity for the city and the application of smart solutions for infrastructure and services**. Out of the 98 cities selected to implement the integrated strategy of human development, nearly a half (46) are intermediary cities. Only five of them, however, were included in the programme's first implementation phase – Solapur, Davengere, Belgaum, Kakinada and Udaipur. This was swiftly revised in successive iterations of the programme and i-cities involved now include Warangal, Bhagalpur, Imphal, Panaji and Agartala – the latter four also being capitals of the country's least populous federate states.[139]

Our Future' focuses on cities with more than 100,000 inhabitants; New Zealand's National Policy Statement on Urban Development was launched at the end of 2015, with a public consultation. Both countries have progressed their integrated approach to urban policy, and their national strategies are among the few that consider the integration of secondary and intermediary cities. Korea is developing a national urban strategy to cope with urban challenges such as regional disparities (49% of the population is concentrated in the Seoul's metro area); the growing pressure of urban areas on the environment, and its ageing.[143]

Other countries have been promoting urban policies through different sectorial policies to foster economic development (Vietnam[144] or Malaysia,[145] for instance). A country like Pakistan, with the centrality of the city long-standing in its social organization, has experienced progress and performant service provision in its metropolises, but it is still looking at NUPs as a way to achieve better integration of its systems of cities.

Several other countries have adopted different strategies to promote smooth rural-to-urban transitions (Bangladesh, Cambodia) or to cope with the effects of conflict-induced migration and natural disasters (Nepal, Sri Lanka). Bangladesh has been struggling since 2006 to develop an NUP whose goals included the improvement of urban planning and land management capabilities and the protection of the urban environment and its water resources.[146] Cambodia is in the process of developing a national urban development strategy for 2014-2018. Nepal created its first NUP in 2007 and established the Ministry of Urban Development in 2012. Following the 2015 earthquake and for the coming years, however, most resources will be concentrated on reconstruction. Sri Lanka introduced its first NUP in 2010, aiming to become the 'Pearl of the Asian Silk Route'. The document was replaced and updated in 2015.[147]

In the Pacific, outside the large mainland nations (Australia and New Zealand), small island states or archipelagos are facing structural (if not geographical) difficulties in the establishment of a reliable infrastructure, the reduction of informality, and the strengthening of their capacities for key urban policy action. Climate change effects and a threatening vulnerability to natural disasters (hurricanes, flooding, wildfires) have also risen to the top of the urban agenda. A common element of NUPs in the Asia-Pacific region is that intermediary cities, though mentioned in several strategic documents, do not feature strongly. The United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP) has given strong support to countries in the region to build urban policies that promote integration and the development of systems of secondary cities.[148] The importance of functional linkages between systems of cities has also been stressed by the Asia-Pacific Economic Community (APEC).[149]

Within the framework of the preparatory debates ahead of the UN Habitat III 2016 Summit, the representatives of the Asia-Pacific region have agreed on the Jakarta Declaration on 'Sustainable Urbanization to Accelerate Development'. **This document acknowledges the need for enhanced dialogue on urbanization and its effects horizontally across borders and vertically across governance levels**. But it also sets out key strategic directives for future region-wide coordination on urban development and its impact. The Declaration does not expressly refer to i-cities. Yet its recognition of the need for 'systemic solutions' and 'planned, productive and integrated city growth', and the call for cooperation among stakeholders 'to manage the increasing diversity and demographic complexity' of Asian-Pacific cities, are pivotal points of a rational and integrated roadmap for i-cities to follow in the coming years.

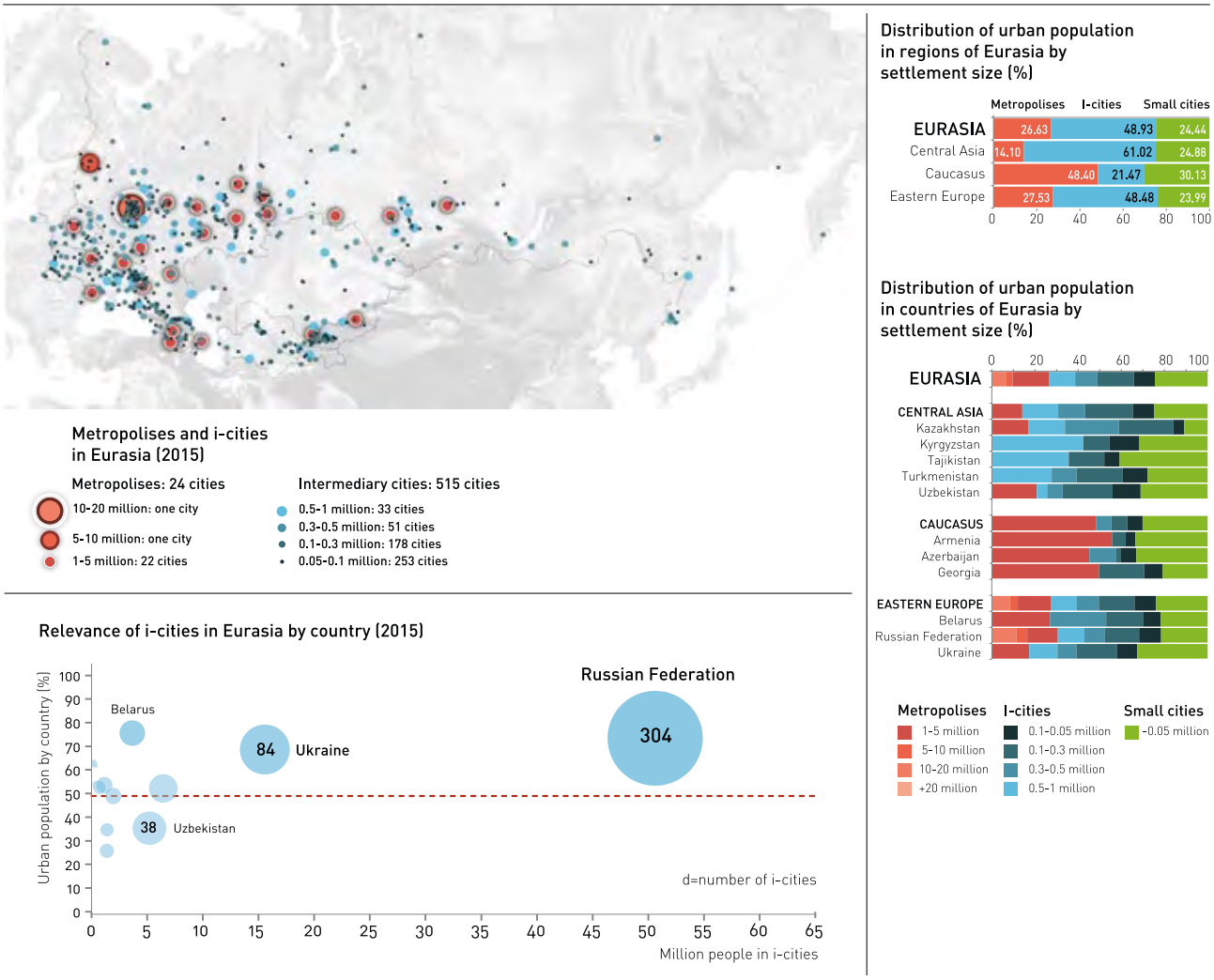
I-cities in the Asia-Pacific region have been proven to contribute to overall development especially in polycentric systems of cities, but differences between i-cities and metropolises or megacities are expanding

I-cities in the Asia-Pacific region have been proven to contribute to overall development especially in polycentric systems of cities, but differences between i-cities and metropolises or megacities are expanding. This affects the ability of regional i-cities to contribute to a more equitable distribution of wealth and production. The challenges confronting i-cities in Asia still relate mainly to the improvement of system interconnectivity (roads, railways, communications); weak local governance and financing; and ineffective strategic urban policy, particularly in terms of effective implementation.

3.3
URBAN SYSTEMS AND INTERMEDIARY CITIES IN EURASIA

Figure 3.4 **EURASIA distribution of population by settlement size and urban population weight in i-cities**

Source: UCLG and CIMES-UNESCO.



3.3.1 Spatial integration and functional balance of Eurasian i-cities

Eurasia covers the territory's three sub-regions: Eastern Europe, the Caucasus countries and Central Asia.[150] The region is formed of 11 countries, nine of which are landlocked, and covers one sixth of the Earth's total land surface. Eurasian states had formed part of the Soviet Union before it broke up in 1991.[151] The total population of the region stands at about 279 million inhabitants, with an urban population of over 180 million people (2015), 59% in the Russian Federation. More than 73% of inhabitants in Russia and Eastern Europe live in urban areas. This rate lowers to 56% in Caucasus countries while in Central Asia it falls to 40%. There are a total of 24 metropolitan areas and 515 i-cities in the region. Almost 49% of the population live in i-cities, although there is significant variation among countries in the region. The median size of i-cities is approximately 171,000 inhabitants.

Compared with Europe, the distances between Eurasian cities are significant. In European Russia, regional centres (most of which are i-cities), are located about 200km from each other, a figure that is even higher in the Asian part of the country. **There are significant differences in the patterns, structures and factors that have shaped the development of i-cities across the region**. Historically, the strong influence of the Soviet legacy on the entire region's institutional, planning and socio-cultural systems is undeniable. The level and rates of development and urbanization, however, vary enormously. Population growth rates in Eastern European and Caucasus countries are falling, affected by rapidly ageing demographic trends, while annual urbanization and population growth rates in Central Asian states are barely higher.

Each country in the Eurasian region has adopted its own approach to define the status and classification of urban settlements, based on population, socio-economic and political significance, and other criteria.[152]

The economic transition that followed the events of 1991 created a tendency towards concentration, agglomeration and urban sprawl, especially in larger cities and national capitals

Monocentric/polycentric regional spatial structure in Eurasia

The structure of urban population varies across the region. In Armenia, Azerbaijan, Georgia, Kyrgyzstan and Tajikistan 35% -50% of the total urban population is concentrated in the capital cities. While in the Russian Federation, Belarus, Kazakhstan, Turkmenistan, Ukraine and Uzbekistan, the urban population is more distributed among large agglomerations, i-cities and small towns.

The economic transition that followed the events of 1991 created a tendency towards concentration, agglomeration and urban sprawl, especially in larger cities and national capitals. While national population growth rates are falling, most capital cities have increased their relative demographic importance.[153] In the Russian Federation, the number of cities with more than one million inhabitants grew from 13 in 1990 to 15 in late 2012. Similarly, the population of most cities with over 500,000 inhabitants in Russia and 250,000 inhabitants in Belarus has grown, especially since the second half of the 2000s. Conversely, many medium and small-sized i-cities in the region are shrinking, experiencing a significant economic decline. In the more arid parts of Uzbekistan, Tajikistan and Turkmenistan, i-cities are greatly dispersed and have been functioning mainly as regional administrative, education and agricultural centres.

Coastal, inland and landlocked Eurasian cities

Spatial systems of cities vary across the region. Most Eastern European i-cities are located on predominantly flat or undulate land along an extensive network of river waterways. Central Asian i-cities are nestled predominantly in fertile valley systems. Remoter i-cities, isolated from the main agglomerations, tend to fare worse socio-economically and have faced the additional challenge of losing most of their employable young population to more successful clusters of cities. The dynamics of ageing populations and rural-to-urban migration have also fuelled this disparity.

Functional balance of Eurasian i-cities: clusters and corridors

Under Soviet rule, expanded towns and new municipalities were instrumentally created in Eastern Europe and Central Asia, primarily to meet the needs of the Soviet Union's national economy. These i-cities were often developed as 'monocities', single industry towns that responded to the needs and goals of major industrial programmes at the national level and integrated into production chains throughout the Soviet Union, rather than being embedded in or designed to stimulate local economies.[154]

A substantial part of the region's population is concentrated in clusters of cities that extend east of Saint Petersburg and Minsk, through Moscow. This system aligns northwards to Ekaterinburg, Astana, Omsk and Novosibirsk, and southwards to Rostov, Tbilisi, Baku, Tashkent and Almaty.

Armenia and Azerbaijan are two of the region's countries to benefit most from their geostrategic position along the gas and oil pipeline infrastructure that unites the Caspian and Black Seas, and to successfully put their own cities on the global map. The Tbilisi (Georgia)-Baku (Azerbaijan) corridor links almost all intermediary cities of both countries – including some historically relevant specialized clusters, such as GĐncĐ (Azerbaijan), a renowned centre of silk manufacturing. Ambitious projects, such as the Kars-Akhalkalaki-Tbilisi-Baku railway (which aimed to connect Azerbaijan and Turkey through Georgia bypassing Armenia with its persistent conflict and tensions)

have for years been trying to use i-cities as hubs and checkpoints in key infrastructural development. In the Russian Caucasus, a parallel corridor joins Machačkala (Dagestan), Grozny (Chechnya) and Nal'čik (Kabardino-Balkaria) with Krasnodar. The corridor is all the more relevant, given the underlying conflictual tensions that have characterized these regions for generations.

3.3.2 Trends and national urban policy responses in Eurasian i-cities[155]

The breakup of the Soviet Union in 1991 led to the end of its centrally planned economy, the rupture of established inter-republic economic relations and, consequently, to serious difficulties in securing industrial raw materials and energy resources. After the inevitable economic decline of the early 1990s, most of these countries accelerated the modernization of their economies. Some countries' GDPs are, however, still below their 1990 levels – as is the case with Georgia, Kyrgyzstan, Tajikistan and Ukraine.[156]

This restructuring process entailed an even greater polarization between larger and lower-tier cities, as well as between central and peripheral regions. Job loss, increasing inequalities, migration towards capitals and major cities, stagnation of small and medium urban settlements, including in particular the many mono-industrial towns of the Soviet era and those that remained outside of the central core corridors of development, all became structural issues affecting urban development of the entire region.[157]

However, some i-cities in many parts of Russia, Kazakhstan, Azerbaijan and Turkmenistan are benefiting from emerging economic trends, especially production and export of oil, gas, minerals, metals and chemical products. Improvements have also been seen in i-cities connected to ports, transportation gateways and cross-border trade opportunities for import-substitution activities, as well as in smaller cities attractive for the tourism sector. In addition, clusters of i-cities around larger cities with specific economic advantages are growing. However, many have experienced the adverse effects of proximity to megacities – loss of local jobs and the gradual transformation into a megacity's residential periphery. Importantly, the wealth produced by i-cities embedded in extractive and mining economies has in general been accumulated in national and regional capitals, or overseas via foreign financial actors active on the global market and not in the i-cities themselves. This is feeding an increase in inequality and a lack of economic opportunities.[158]

For most urban settlements, however, the transition towards a market economy has entailed a decline in access to basic services and a downward trend in the quality of their provision. The former Soviet regime left behind a set of urban infrastructures for public utilities (water, sanitation, transport, heat supply, among others), although generally characterized by high production costs and inefficient use of resources. **In the past decade, basic service provision and infrastructure management have stabilized, showing signs of improvement**. A majority of i-cities, nonetheless, still face growing costs to maintain and renew this infrastructural system. This has led to significant service disruption in many cities of the Caucasus and Central Asia.

Forty percent of former public housing privatized in the 1990s has deteriorated significantly, affecting the quality of life of citizens, increasing the cost of energy and the environmental impact of cities altogether. Faced with relatively poor energy efficiency, countries such as Russia and Belarus have launched specific national programmes, aimed specifically at the larger agglomerations of residential buildings, for the diffusion of energy-efficient practices. Others are implementing pilot programmes and initial evaluations (Armenia, Kazakhstan and Uzbekistan). In general, the scale of new energy-efficient house construction is modest throughout the region. The incremental transformation of land tenure and housing provision towards a market system has led to considerable and increasing urban sprawl, putting additional strain on soil use in cities' hinterlands, especially in Central Asia and the Caucasus. In Eastern European i-cities, where the population has scarcely grown or even declined, 'centric' areas have deteriorated most as a result of urban sprawl, heightening maintenance and infrastructural problems. The ageing population in Eastern European i-cities, moreover, is constraining housing and healthcare service provision. Similarly, the levels of urbanization in Central Asian economies are putting pressure on governments to generate employment opportunities for younger migrants that opt to move to larger cities. Regional tensions and conflicts are also having an impact on the stability of governments and populations, as well as on the capacity to keep those i-cities

This restructuring process entailed an even greater polarization between larger and lower-tier cities, as well as between central and peripheral regions

close to conflict zones safe and secure. Deficient or uneven administrative reforms and partial decentralization processes have left many i-cities with unclear powers and reduced resources and capacity to face current challenges. I-cities have seen their control over processes of urban development, long-term territorial planning and natural resources decrease. Blurred distribution and duplication of functions, powers and competences between the central and regional levels of the executive power have affected management performance in many i-cities, as has the lack of funding to implement the necessary development programmes.

Urban planning – once central to urban policies in the region – has become progressively less effective, following the breakup of the Soviet Union. **The relationship between spatial planning and economic and human resource development remains weak**. Even though the official discourse privileged balanced territorial development, the actual political priorities of the region have focused, over the last few decades, on creating core economic growth by strengthening the role of metropolitan areas (Moscow and Saint Petersburg in the first place) with a focus on transport infrastructures and the amalgamation of surrounding settlements. Several countries in the region, such as Armenia and Georgia, are at various stages of formulating NUPs, but these are still either incomplete or not integrated into more comprehensive national economic, transport and human resources policy frameworks.

The destiny of i-cities in post-Soviet countries has been particularly affected by national governments' policies and has generally been neglected in overall territorial and urban policy agendas. In Russia, intermediary and small cities tend to revolve around specialized economies and a low business diversification. Many i-cities find it difficult to adjust to the decline of heavy manufacturing industries, to diversify their output and revamp their local economies. This quickly escalates into problematic capital and investment attraction. As mentioned above, this is with the exception of those that have managed to transition to, and take advantage of, new export-oriented economic trends. Several i-cities have also experienced significant population declines due to lower fertility rates and outward migration of youth and entrepreneurs, an issue that seems bound to persist in the future for many Eurasian i-cities. National, regional and local policy-making systems are vertically hierarchized. The decision-making process cascades down to i-cities with a direct impact on small settlements and rural areas, whose existence is thereby dependent on dynamic interaction among such cities. The deterioration of their systems, a lack of investment in their economic and social interconnectedness, and insufficient capacities to recognize and address their specific issues, are compromising i-cities' potential territorial integration and development prospects.

As noted in the UN-ESCAP report, 'the changing of the status of the region, which

was previously isolated from the global economy, will require a new understanding of the role of cities and the creation of a new urban framework. The new paradigm calls for a major reconfiguration of the cities' role at both national and regional level, including the emergence of new leading cities with industrial, innovation, transport and logistics potential'. Much greater attention must be given to increasing i-cities' potential to generate productive employment, attract investment and improve international linkages.[159]

Decentralization of powers should be legislatively reinforced through the administrative and financial empowerment of local authorities. As a converging process, this should also contribute to the formulation of well-balanced national policies, with the creation of mechanisms at the central level that are able to stimulate i-cities' development and modernization. More endogenous base-development is required to revitalize the material and social capital and assets of i-cities, resorting to knowledge, information, creative and technology-based industries while reducing their reliance on imports. The long-term prosperity of i-cities is not, however, just an economic matter. New local policy frameworks should foster and privilege cultural heritage and educational opportunities – catalysts of a high quality of life for residents and citizens in the long term, especially in the context of post-industrialization and modernization of economies, lifestyles and participation.[160]

The environmental impact of urban areas, climate change adaptation and mitigation actions, as well as disaster management, should also be addressed through adequate urban planning and the modernization of infrastructures and services. Adequate policies can help to address the shrinking phenomena that have affected many i-cities, promoting denser, more compact cities and looking for solutions to ever more pressing ageing and migration issues. I-cities should be better integrated into spatial trade and economic development corridors. Eurasian countries need to include i-cities in their national strategic programming when designing transportation infrastructure improvements that could become the basis for a region-wide network of development – an element which has sensibly upgraded the effectiveness of urban policies in other regions. Eurasian countries would benefit significantly from adopting a comprehensive urban policy framework that explicitly formulates concepts and strategies of urban and spatial development. To do so, they will need to develop much more open, collaborative and inclusive approaches to urban governance. Eurasian governments have a responsibility to enhance their economic development policies and link these to urban development planning to overcome the challenges that are holding back many countries in this region, and capitalize on the many available opportunities towards more efficient, sustainable and inclusive urban development.[161]

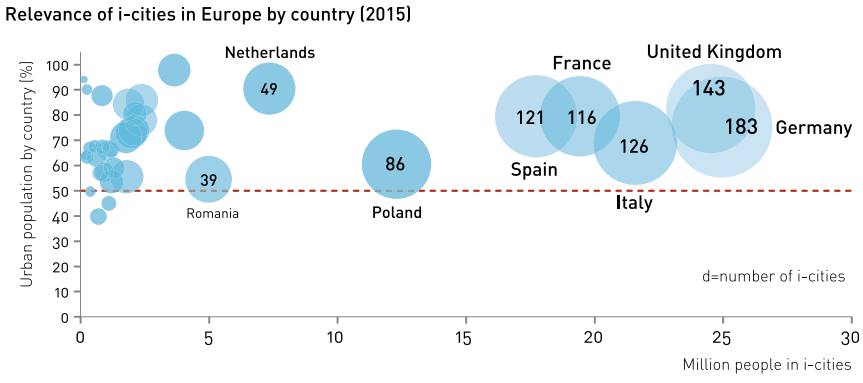
The new paradigm calls for a major reconfiguration of the cities' role at both national and regional level, including the emergence of new leading cities with industrial, innovation, transport and logistics potential

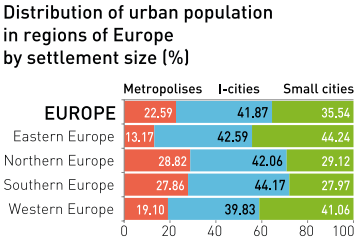
Photo: ppl / Shutterstock.com - Astana (Kazakhstan Republic).

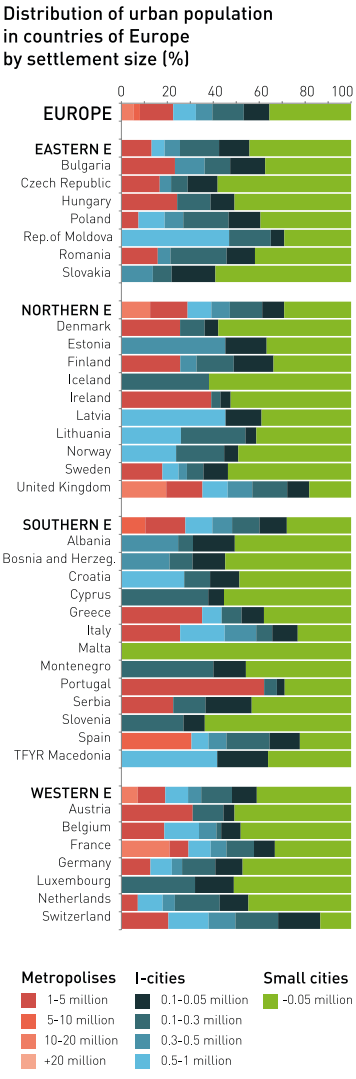
3.4
URBAN SYSTEMS AND INTERMEDIARY CITIES IN EUROPE

Figure 3.5 **EUROPE distribution of population by settlement size and urban population weight in i-cities**

Source: UCLG and CIMES-UNESCO







3.4.1 Spatial integration and functional balance of European i-cities

Europe is the world's region with the highest proportion of urban population living in intermediary cities (41.9%). I-cities with fewer than 300,000 inhabitants in particular, host one quarter of Europe's entire urban population, compared with 22.6% living in metropolises. The third most urbanized region on the planet, Europe hosts 12% of the world's population settled in intermediary cities, after Asia (45%) and Africa (12.3%), and before Latin America (11%).

Even though i-cities are relevant in each of Europe's sub-regions, just six countries concentrate 775 out of a total 1,136 i-cities across the continent. These i-cities have 120.4 million inhabitants, or 71% of Europe's whole i-city population and 30% of the whole urban population of Europe. These six countries are: Germany (183 i-cities and 40% of the urban population); the United Kingdom (143 i-cities and 46%); Italy (126 i-cities and 51%); Spain (121 i-cities and 47%); France (116 i-cities and 37%); and Poland (86 i-cities and 53%). Northern countries, moreover, host over 37% of their urban population in i-cities, even though small cities with fewer than 50,000 inhabitants are still prevalent (48% of the urban population).

Monocentric/polycentric regional spatial structure in Europe

Europe's urban system is a valuable example of a polycentric system with high territorial cohesion. Significantly, 65% of the EU's territory is covered by 45-minute commuting from urban areas, especially in Central and Western Europe.[162] Despite being Europe's least urbanized area, Eastern Europe also has a polycentric urban structure. Eighty-seven percent of its urban population live in intermediary and small cities. In Poland, for instance, larger i-cities such as Kraków, Łódź, Wrocław and Poznań have been losing population and yet manage to be functionally competitive with the metropolitan area of Warsaw – whose population, on the contrary, has steadily increased since the 1990s. On the other hand, in Hungary, Budapest's preeminence is absolute, with the capital having the same population as Hungary's other 18 cities. In smaller countries in Western Europe, such as Switzerland, the Netherlands and Belgium, 66%, 48% and 33% of their urban populations, respectively, are concentrated in i-cities well-connected to their respective capitals. Together with the Zurich area, the Geneva-Lausanne-Bern-Basel corridor hosts 50% of Switzerland's urban population.

Europe's North and South have the smallest concentration of population in i-cities. Portugal's system is 'bicentric' and articulated between the poles of Oporto and Lisbon and hosts 60% of the urban population when just 8.9% of the total population reside in i-cities. A similar pattern can be seen in Spain, where the Madrid-Barcelona binomial makes up 30% of the whole country's urban population, even though its 121 i-cities form a continual extended network that shapes various corridors on the Mediterranean coast and inland, especially through intermediary provincial capitals. In Italy, Milan and Turin are the backbones of a network of well-connected i-cities in Italy's largest plains known as Po Valley and share the country's most developed territorial infrastructures. In the centre, Rome and Naples are the urban gateways to a system that, in the South, relies almost exclusively on intermediary and small cities, deeply linked to the rural environment and economy. In Scandinavia, urban development is greatly affected by the scarce population and massive territorial extensions in Sweden, Norway and Finland. Oslo concentrates 23.8% of the entire Norwegian urban population and connects to Bergen, Stavanger and Trondheim through an urban coastal system internally divided by large distances. In Sweden, small cities of fewer than 50,000 inhabitants host 53.6% of the whole urban population, with Gothenburg and Malmö as the main i-cities in the system – the latter is also pivotal in the Øresund region, together with Denmark's capital, Copenhagen.

Europe's urban system is a valuable example of a polycentric system with high territorial cohesion

Coastal and inland European intermediary cities

Europe's urban system of i-cities is one of the world's most complex. **The high density, territorial connectedness and economic and functional integration with both metropolitan and rural areas, make differences among coastal, inland and enclaved cities much less apparent**. The urban population is quite evenly distributed geographically, but the coast plays an important role, hosting 35% of the population.[163] River waterways – like the Danube or the Rhine – are traditional

industrial cores that host a number of inland i-cities.

While i-cities along the coast or the Alpine arch link to form strategic urban corridors, many regional i-cities that are not well-connected have also been central to inland rural development in major European economies. Such is the case in Lleida (Spain), Limoges (France), Erfurt (Germany) and Lincoln (United Kingdom), or the less populated areas of Scandinavia or Eastern Europe's large plains. Countries like France, Germany, Spain or Italy also show significant differences in development and competitiveness between coastal and inland i-cities, even though many of them have been able to buck such trends by leading, for instance, the agro-alimentary and tourism industries.[164]

Functional balance of European intermediary cities: clusters and corridors

The Trans-European Networks (TEN) policy revolved around ambitious EU-funded projects and goals in transport (TEN-T programme) and energy (TEN-E programme) infrastructure and connectivity

National capitals are essential to the economies of many European countries.[165] In France and the United Kingdom, for example, i-cities have benefited from their proximity to global cities like Paris and London, the most accessible and connected areas in the region. I-cities such as Oxford, Brighton and Southampton (United Kingdom) have repositioned themselves among larger metropolitan areas as clusters of creative industries.

Thanks to a mix of long-standing spatial systems and policies that have long fostered spatial balance, German i-cities have developed as administrative, manufacturing or administrative centres, with a strong tradition of regional and international market integration. Mainz, Karlsruhe and Münster (Germany), for example, form a significant bio-pharmaceutical cluster, hosting an emerging industry that links the chemical industry with research and university centres. In Northern European countries, Aalborg (Denmark) or the small i-city of Gävle (Sweden, north of Stockholm) have been leading the digital industry in software design and e-commerce.

Technology and mobility clusters have benefited from spill-overs in the automotive industry of the Stuttgart area (Germany), and Wolfsburg, 75km east of Hannover, hosts the headquarters of Volkswagen. Grenoble's micro-electronics cluster has thrived in the Rhône-Alpes region (France), one of the continent's core areas for applied research. Rzeszów, a city of just 185,000 inhabitants in southern Poland, one of the least connected areas of Europe, has nonetheless developed an important aero-spatial cluster, as shown by the emergence of the Aviation Valley association of businesses in the industry.

The agro-alimentary industry also has significant weight in the produce economies of several Southern and Eastern European regions. Logroño, capital of La Rioja region in Spain and centre of one of the most important wine clusters in the world, and Almería, the area with the world's highest concentration of greenhouses and the centre of the Mediterranean's most intensive agro-alimentary and horticultural industries, stand out in the Spanish landscape of i-city clusters. Finally, Section 2 has already mentioned the specialized clusters of northern and central Italy, which formed the impetus for an integrated European policy on productive clusters in the first place.

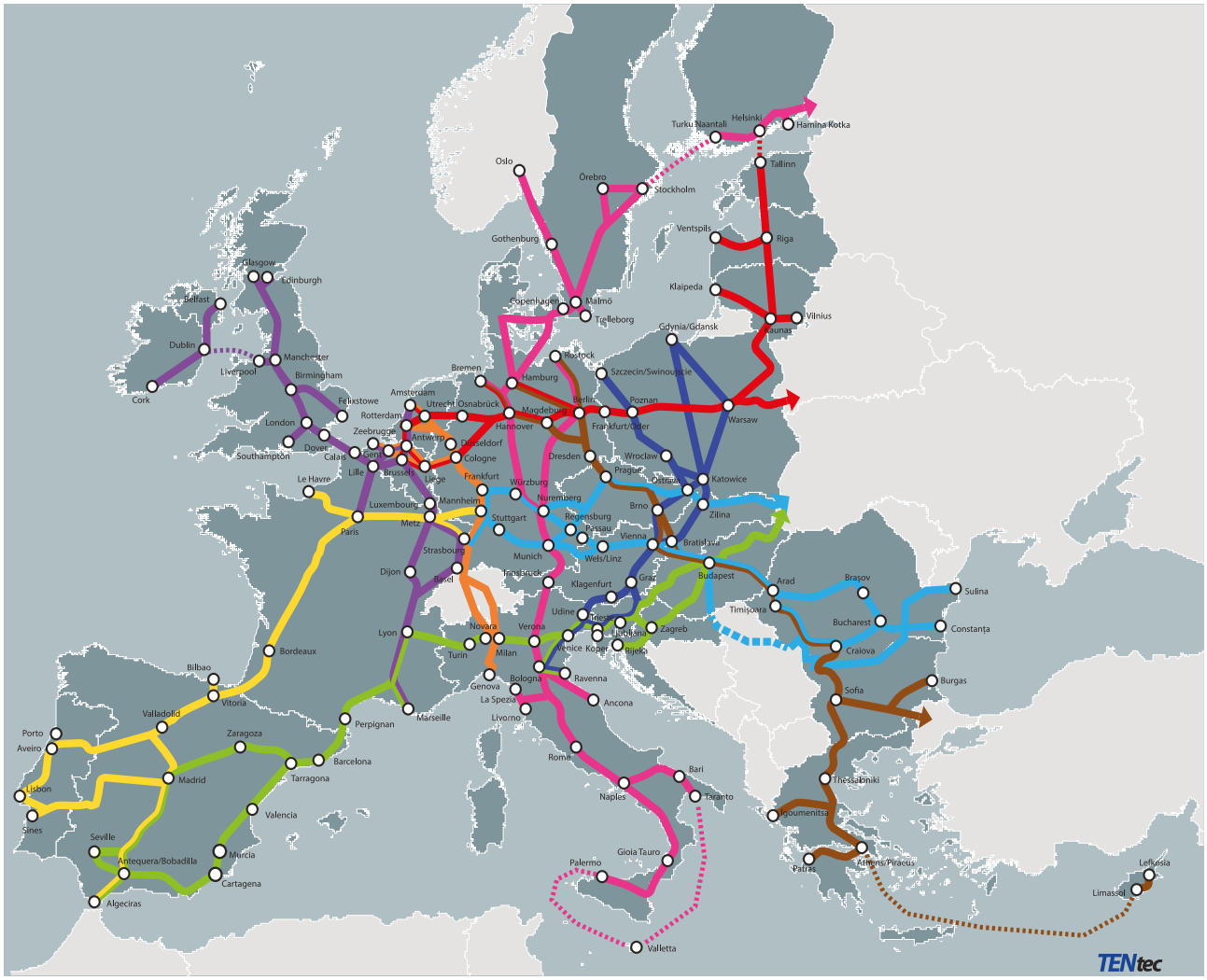
Urban corridors are a feature of Europe's territory. They have also been pivotal in EU policies. A framework for interconnected corridors across Europe was first established in 1996. The Trans-European Networks (TEN) policy revolved around ambitious EU-funded projects and goals in transport (TEN-T programme) and energy (TEN-E programme) infrastructure and connectivity. The policy was significantly revamped in 2014,[166] with a new financial framework[167] and a strong link to the overall sustainability and competitiveness objectives of the EU, under the EU2020 flagship programme. The map of the new TEN infrastructural goals (see Figure 3.6) shows the depth and pervasiveness of the EU's investment in strategic productive corridors across the whole of Europe.

Several examples of effective corridors stand out. The Randstad region in the Netherlands, in fact a polycentric metropolitan area of seven million inhabitants, comprises 21 mid-sized cities in a crescent-shaped corridor from Utrecht in the east to Dordrecht in the south and Alkmaar in the north. The region forms a ring of four large urban agglomerations (with a population of between 1.3 and 0.5 million inhabitants), Amsterdam, Rotterdam, The Hague, and Utrecht, as well as 17 medium and small-sized municipalities, such as Almere, Delft, Leiden and Haarlem.

The Dutch planning system was designed to link cities along the major road and rail corridors and strategically place employment centres in smaller i-cities to distribute occupation around the country and avoid an

Figure 3.6 **TRANS-EUROPEAN Networks (TEN) corridors**

Source: http://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/site/



over-concentration of jobs in larger cities. The development of the European transport and railway systems has resulted in many i-cities being linked along these corridors, both within a country and between different countries (see Box 3.4).

The development of i-city corridors has been relevant in Southern Europe too. Together with the long-standing support of corridors across the continent,[168] the EU has encouraged the emergence of cross-border cooperation between cities e.g. Biarritz and San Sebastian between France and Spain, or Basel and Freiburg between Switzerland and Germany. Many of the TEN corridors in Figure 3.6, moreover, are located along pre-existing, historically active social and economic corridors, which, over the last two decades, have benefited ostensibly from the modernization, infrastructures and homogenized standards imposed by EU policies. Within the framework of the Dutch Presidency of the Council of the EU (during the first semester of 2016), a 'EuroLab' on labour mobility was set up among Dutch, Belgian and German cities, together with an urban agenda, to identify the obstacles and shortcomings in European regulation that are hindering consistent and effective urban development in the region.

BOX 3.4 EUROPE'S SCANDINAVIAN-MEDITERRANEAN CORRIDOR

The Scandinavian-Mediterranean corridor is the longest of the nine core network corridors delineated across Europe by EU policies.[169] It connects economic centres and ports such as Helsinki, Stockholm, Copenhagen, Berlin, Rome and Valletta, and stretches from Scandinavia down to southern Italy and Malta, while connecting high-productivity areas of southern Germany, Austria and northern Italy. Logistically, it crosses the Baltic Sea and reaches ports on the Tyrrhenian, Adriatic and Ionian seas. The corridor has become a crucial North-South axis at the core of Europe's economy. The most important pending projects along this corridor include the Fehmarnbelt fixed immerse link, connecting Sweden to Germany through Denmark, and the Brenner base tunnel between Austria and Italy. Both would address certain interconnectivity issues and bottlenecks that affect freight movement capacities across the region. Their solution would improve transport efficiency and economic performance significantly.

While the corridor passes through some of the biggest cities in Europe, there are also many i-cities located along it. Many of these have small and medium-sized industries, assembling and providing a broad range of products and services that access and leave the area's industry supply chains along the corridor's route. The corridor provides access to those Mediterranean ports that are growing, thanks to their links to the world's largest container-ship routes from other continents. Cities sited on European economic trade corridors are also becoming attractive for investment, as a result of their improved accessibility to markets and the specialized infrastructure that has been developed to support the policy's projects and prospects.[170]

3.4.2 Trends and national urban policy responses in European i-cities

There is significant variation in national urban policies (NUPs) across European countries, although the EU aims to present itself as a proactive driver to give the urban policy domain a genuinely European political and strategic direction.[171] An all-encompassing EU urban agenda has a number of challenges. **Cities include a large range of human settlements that, all the while creating opportunities and fostering connectedness, are particularly vulnerable to economic cycles and employment downturns**. Europe, moreover, is characterized by a large diversity of spatial settlements,[172] as some portions of the territory remain prevalently rural (western and central areas of Spain like Castile and Extremadura, central areas of France, Poland, Romania or Moldova, for instance). Meanwhile, others show huge urban concentration (e.g. Germany, Belgium, the Netherlands or England). Demographic trends have also been inconsistent in the European urban landscape: many intermediary medium-sized cities, for example in East Germany, have experienced a decline in population while others benefit from the arrival of immigrants or face significant population ageing. It is estimated that 40% of European i-cities with a population of 200,000 or more have

lost population. 'Shrinking' i-cities are often connected to radical changes in economic specialization (e.g. the decline of steel, mining and metal industries in Katowice, Poland, and Timisoara, Romania). This is another key challenge that EU urban policy has recently taken up[173] – especially in terms of rural-urban relations and the promotion of mid-sized or intermediary cities as nodes in polycentric national urban systems.[174]

Traditionally, cities have been highly relevant in Europe's regional and national policies. As an evidence of this trend, the Dutch Presidency of the Council of the EU promoted, in May 2016, the approval of the 'Pact of Amsterdam', a new EU urban agenda that now informs the policy debate about EU development priorities, including decentralization and empowerment of cities and their local governments. The Pact builds on the legacy of key strategic European urban policy documents – the Leipzig Charter on Sustainable European Cities (2007), the Toledo Declaration on Urban Development (2010), the Riga Declaration on the EU Urban Agenda (2015) – and couples the EU's urban policy vision with the comprehensive EU2020 objectives and the challenges that the EU faces, up to 2050. Like its strategic predecessors, the Pact of Amsterdam was the initiative of the EU Member State holding the Presidency of the Council of the EU at that time, demonstrating how the EU and its institutions can progress urban policy.

On the one hand, the Pact of Amsterdam is key to recognizing the intense relationship between EU urban policy and European cities. The urban level is, after all, where a myriad of EU legislative acts are implemented, and the urban context has historically fostered successful cooperation experiences and experiments, e.g. the European Territorial Cooperation Programme (URBACT); the European Observation Network for Territorial Development and Cohesion (ESPON); as well as European cities and local government

Photo: Andrea Ciambra - Palermo (Italy).

networks like Eurocities, the Council of European Municipalities and Regions (CEMR), Eurotowns, and dozens of thematic networks. On the other hand, the Pact serves as a roadmap for the future of EU urban policy, setting out next institutional steps towards better regulation, funding and knowledge-sharing, with a common consistent stance in international institutions and frameworks, including Habitat III. Many of the strategic visions developed at the European level, moreover, revolve around the role of intermediary or mid-sized cities. The large proportion of the European population living in these settlements; their role in the face of today's economic, social and environmental challenges; and their support to the functioning of larger agglomerations and metropolises, are all key tenets of the long-term policy plan developed by the Pact, as well as several other key European urban policy documents.

On the path to the 2016 Habitat III meeting, moreover, the representatives of the European members of the UN Economic Commission for Europe (UNECE) approved, in March 2016, the Prague Declaration on the 'European Habitat'. This document collects the key strategic points that are shaping the urban debate in Europe. While focusing on pressing threats such as climate change effects, marginalization of vulnerable communities and inclusive local governance, the Declaration also invites national governments to consider 'strategic planning of human settlements in a polycentric and balanced territorial development' – a testament to the importance of territorial integration in Europe's urban tradition and a key strategic horizon for i-cities.

The strategic documents that have paved the way towards an EU Urban Policy Agenda are proof that the European level is finally creating the conditions and providing the resources for NUPs to converge on common objectives and shared values and visions

European urban policy also has a lasting effect on domestic policies, since it sets the background for the development of national frameworks and plans. This has been the case in a number of national experiences, sometimes regardless even of the differences in institutional organization and national governance. France, for instance, is a traditionally centralized country yet its cities are nonetheless a constant policy interlocutor.[175] France's structural *Politique de la Ville*, originally devised in the 1980s, has been significantly reshaped in the 2010s, with a systematic attempt to promote, in line with international and European guidelines, strengthened cross-level dialogue, easier access to financial resources for local governments, and a cut in the bureaucratic process. Territorial fragmentation has been simplified, several agencies have been set up to tackle different issue areas,[176] and channels of local participation in decision-making have been improved.[177] The central government maintains its prerogatives of 'legality checks' and monitoring tasks, but shares budget management directly with the local governments through the *Contrat de Ville*. The role of newer agencies, like the National Agency for Urban Renewal (ANRU), has been crucial in bridging the gap between national policy and European objectives.

Germany, on the other hand, is a federal state with strongly multi-layered urban governance[178] that distributes the authority and capabilities to shape a common urban policy at the local, regional and national level. The 2007 memorandum, 'Towards a National Urban Development Policy in Germany', is currently the main roadmap in the definition of a consistent national urban policy. This builds on active collaboration between the local level (through the German Federation of Towns and Municipalities and the German Association of Cities) and the *Länder* (federal states). The policy is promoting open platforms for horizontal cooperation, as well as enhanced funding mechanisms for self-governance initiatives. The role of the federal government as a mediator and 'consensus-broker' at the European level, however, remains critical.

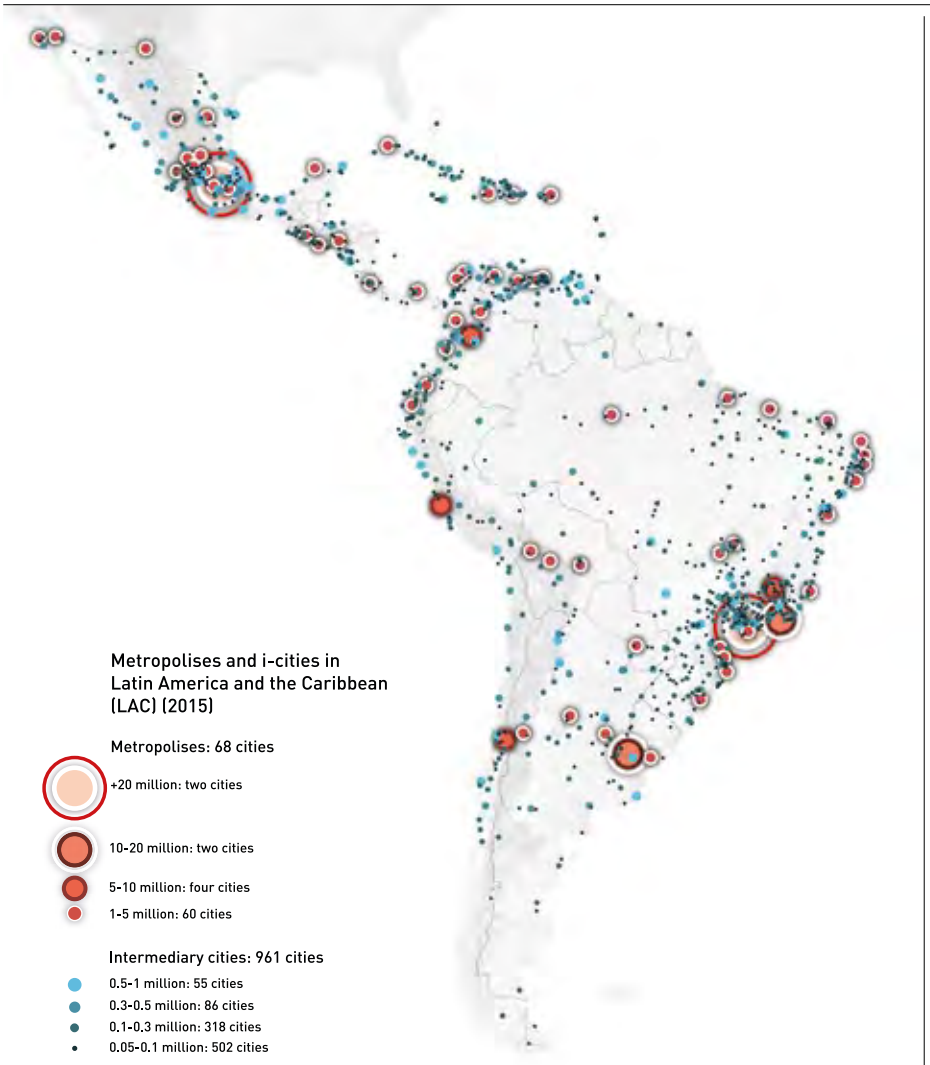
Issues such as integrated urban governance and economic development (e.g. Serbia), rural-urban development inequalities (e.g. Norway), or centre-periphery disparities between a metropolitan area and its surroundings (e.g. Moldavia) have informed the debate on NUPs, also in those European countries that are not part of the EU. Even though horizontal cooperation at the continental level has had an impact in this regard, framing issues in a global context – such as Habitat III – has helped shape urban policies in a way that is consistently 'European' in its goals and methods.

The examples above show that in spite of the diversity and fragmentation that characterizes governance in Europe, especially when it comes to the relationship between the centre and the local level, NUPs have been guided by structural, overarching stimuli at the European level. The strategic documents that have paved the way towards an EU Urban Policy Agenda are proof that the European level is finally creating the conditions and providing the resources for NUPs to converge on common objectives and shared values and visions.

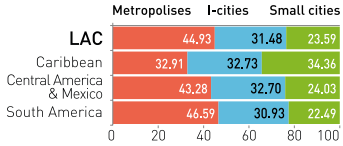
3.5
URBAN SYSTEMS AND INTERMEDIARY CITIES IN LATIN AMERICA AND THE CARIBBEAN

Figure 3.7 **LATIN AMERICA AND THE CARIBBEAN urban agglomerations and distribution of population by settlement size**

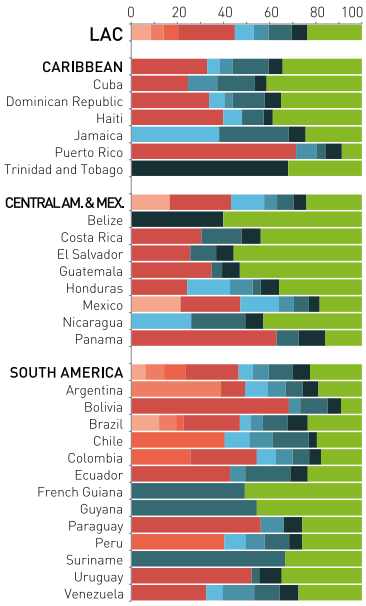
Source: UCLG and CIMES-UNESCO

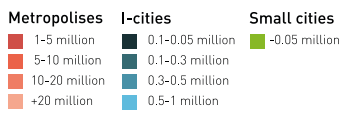


Distribution of urban population in regions of Latin America and the Caribbean (LAC) by settlement size (%)

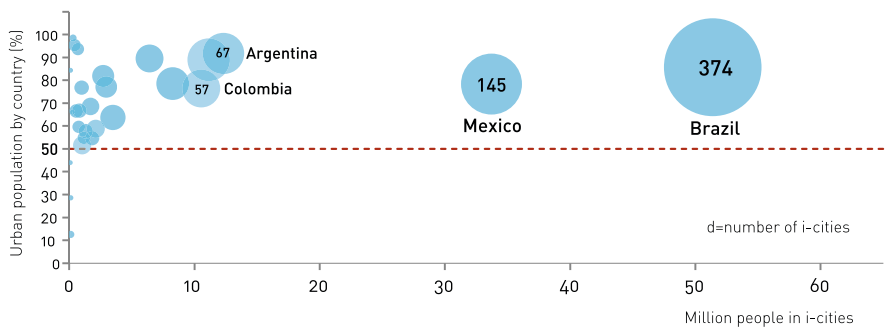


Distribution of urban population in countries of Latin America and the Caribbean (LAC) by settlement size (%)





Relevance of i-cities in Latin America and the Caribbean (LAC) by country (2015)



3.5.1 Spatial integration and functional balance of Latin American and Caribbean i-cities

Of Latin America's 961 intermediary cities, 693 (72.1%) are located in South America, mostly in the region's largest economy, Brazil. It concentrates over one third of all i-cities in Latin America, followed by Mexico (15% of the total), Venezuela (7.3%), and Argentina (6.9%). **Brazil and Mexico are also the region's main emergent economies**, accounting for 54% of the entire urban population of Latin America settled in i-cities. Cuba and the Dominican Republic, on the other hand, stand out amongst countries in the Caribbean Sea. They are the most populous countries in the region account for 57% of the Caribbean population living in i-cities.

Monocentric/polycentric regional spatial structure in Latin America and the Caribbean

Most urban systems in Latin America and the Caribbean are dominated by monocentric or bicentric systems. In South America, the urban systems of Argentina, Chile, Paraguay, Peru and Uruguay show a hypertrophic capital city pattern (their capitals concentrate between 32% and 56% of these countries' total urban population). Buenos Aires' population is ten times that of the two other largest metropolises in the country. I-cities in Argentina (67) host 32% of the urban population. The same population is concentrated in Chile's capital, Santiago, as in its 30 i-cities. Central American and Caribbean countries, although to a lesser extent, show a similar pattern. Panama City concentrates 63% of the urban population of the whole Republic. Guatemala City has 18 times the population of Quetzaltenango – the country's second largest city – while, at the same time, all of Guatemala's i-cities are located within a 100km radius of the capital. Bolivia and Honduras have a bicentric or tricentric model (two or three cities concentrate 68% and 43% of the urban population respectively). I-cities in these two countries host 22% and 39% of the urban population in twelve and eight cities respectively.

Brazil, Colombia, Mexico and Venezuela are the only countries with a more polycentric urban system pattern – even though in the former three, the largest city is much bigger than the next (Mexico City alone concentrates 21% of the urban population of the whole country; Bogota, 20%; São Paulo and Rio de Janeiro, 12% and 7% respectively). In Brazil, more than 50 million people – 30% of the urban population – live in 374 i-cities of mainly 100,000 to 300,000 inhabitants (10.8%) and 100,000 to 50,000 inhabitants (8.6%). Most Brazilian i-cities are concentrated in a radius of 300km from Rio and São Paulo, along the coast of the north-eastern states and in the States of Paraná, of Santa Caterina and Rio Grande do Sul in the South. Colombia has 57 i-cities that host 28% of the urban population, as well as six agglomerations with more than one million inhabitants (54% of the urban population). Mexico has the second largest megacity in the region, followed by 13 agglomerations with more than one million inhabitants and 145 i-cities, in which 34.3% of the urban population dwells (16.5% with between 500,000 and one million inhabitants). Venezuela hosts 33% of its urban population in its five metropolitan areas and 40% in 71 i-cities.

Photo: Lina Gast - San Juan de Pasto (Colombia).

Coastal, inland and landlocked Latin American and Caribbean i-cities

Approximately 42% of the population of Latin America and the Caribbean are concentrated in a 100km wide coastal strip,

which amounts to only 20% of an extensive territory of the Amazon. **In South America, however, apart from a number of coastal cities, there is a relatively sparse group of cities settled across the Andean mountain system, which in most cases evolved from pre-Hispanic settlements**. In the main, cities of colonial heritage that are heavily concentrated in coastal areas or along maritime routes of strategic value, have prospered during the process of industrialization in the second half of the 20th century, thereby preserving the competitive advantages of their location.[179] Similarly relevant is the development of Bolivia's 'half-moon', an intermediary hub across the country's eastern region, its plateau and the Mercosur region, where i-cities like Montero, Warnes and La Guardia have flourished around the metropolitan pole of Santa Cruz.

Mexico hosts a significant number of large landlocked i-cities, like Chihuahua and Delicias, even in its arid northern states: the city of Hermosillo manages a municipal territory of 18,000km^2, an area equivalent to the whole of El Salvador. In South America, isolated cities are concentrated mostly in the Amazon provinces or the southern provinces of Argentina. I-cities with more than 300,000 inhabitants include Iquitos (Peru), Boa Vista, Rio Branco and Porto Velho (Brazil), all of which have important extractive industries. Heritage cities like Cuzco (Peru) and Potosí (Bolivia) are located in the Andean region and focus mostly on tourism. In Argentina, the largest isolated i-cities are Neuquen, Trelew, and Rio Gallegos, as well as Ushuaia, the southern-most city in the world. Cúcuta (Colombia), San Cristóbal (Venezuela), Pedro Juan Caballero (Paraguay) and Ponta Pora (Brazil) are other examples of isolated i-cities growing on a border enclave economy.

Functional balance of Latin American and Caribbean i-cities: clusters and corridors

Most Latin American and Caribbean countries have now developed programmes aimed at the improvement of their micro, small and medium-sized enterprises' productivity and competitiveness. They have done so by also promoting the creation of clusters that have occasionally transcended the regional scale of domestic consumption and grown into global competitors. Five typologies of clusters can be identified:[180]

- Clusters of 'survivor' micro and small enterprises in low-specialization manufacturing sectors, generally located in larger i-cities and integrated within the informal sector, presenting alternative employment opportunities given the lack thereof;
- More advanced and specialized small and medium-sized enterprise (SME) clusters with stronger productivity capacities that have been steadily accessing national and international markets, as is the case with the shoemaking industry in Novo Hamburgo (Brazil), in the Porto Alegre area, or Rafaela's (Argentina) agro-industrial and metal clusters;
- Clusters of the farming, mining and logging industries, such as Colombia's coffee cluster that involves i-cities such as Manizales, Pereira, Armenia or Ibague, or the sugar cluster of the Cauca Valley, including nearly 40 municipalities;
- Service clusters linked to high added-value knowledge economy, such as those developed in Brazil by inner cities like Londrina and Maringá, in the State of Paraná, and connected to Campinas and Florianópolis, usually referred to as Brazil's 'Silicon Valley';
- Transnational clusters, such as the automotive industry clusters in Ramos Arizpe (Mexico) or Resende (Brazil), or cities with significant concentrations of the textile industry along the border between Mexico and the United States. These include Nogales, Agua Prieta, Ciudad Acuña, Piedras Negras (the most populous city of the state of New Laredo), and their 'twin' American cities on the other side of the border.

Many urban corridors in Latin America and the Caribbean are articulated in i-cities of different sizes, mainly along the coast, but also in interior corridors adapted to the Andean orography

Many urban corridors in Latin America and the Caribbean are articulated in i-cities of different sizes, mainly along the coast, but also in interior corridors adapted to the Andean orography. All the i-cities of Guatemala, El Salvador and Nicaragua are aligned in a 1,000km corridor on the Pacific coast, from Tuxtla Gutiérrez, the capital of the Mexican State of Chiapas, to Granada, south-east of Managua (Nicaragua). The Caracas-Merida axis, along the Andes, and the Ciudad Bolívar-Barcelona corridor, linking the Orinoco basin to the Atlantic coast, are the key corridors of Venezuela. Chile's geography has inevitably favoured the emergence of a corridor along the Pacific coast, linking the resort city of Puerto Mont to Santiago with over ten i-cities in between, all with a population of fewer than 300,000 inhabitants, e.g. Talca and Curicó. In Brazil, the different

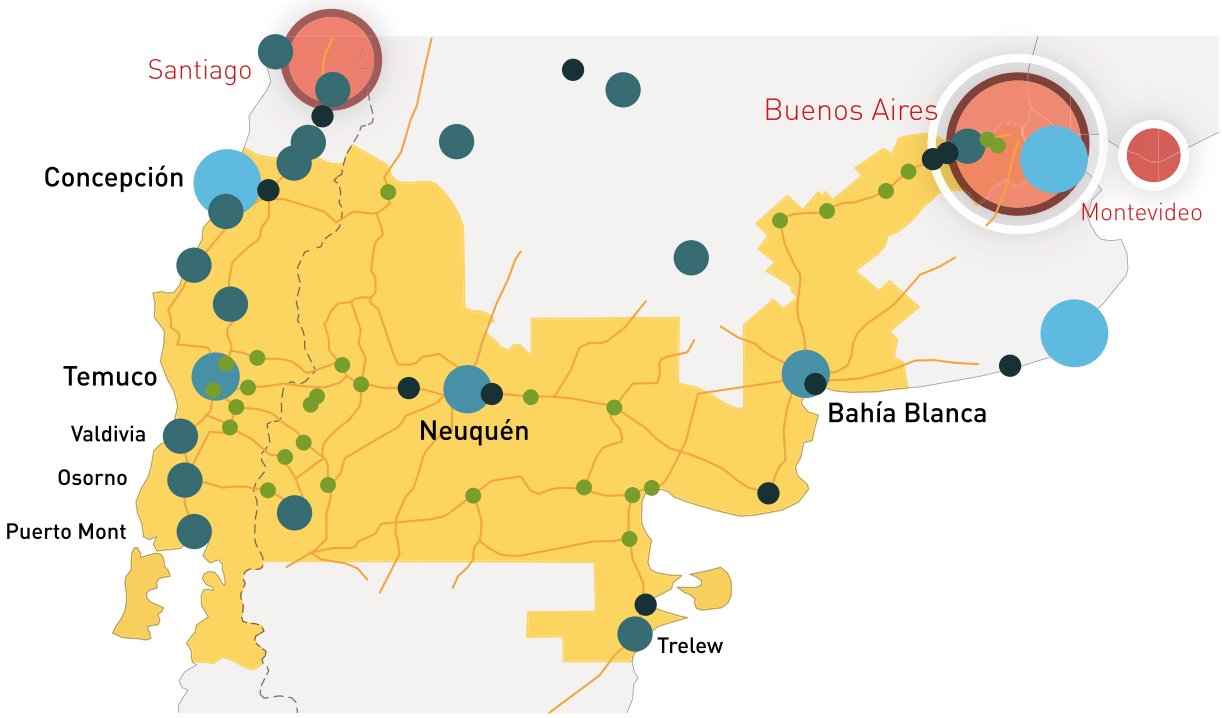
tributaries of the River Amazon marked the development of small i-city corridors linked to agro-industrial and extractive activities. On a different scale, the three megacities of the Southern Cone – Rio de Janeiro, São Paulo and Buenos Aires – form a regional corridor that supports more than 20 i-cities, many of them as important as Londrina, Maringá and Uruguaiana (Brazil) or Salto (Uruguay) (see Box 3.5). The area of São Paulo alone, however, concentrates a number of inner corridors, such as the São Paulo-Bauru-Aracuba-Tres Lagos axis; the São Paulo-Campinas-São José do Rio Prieto corridor, and the São Paulo-Ribeirão Prieto-Uberaba-Uberlandia corridor, which reaches the Federal District of Brasilia.

BOX 3.5 LATIN AMERICA MERCOSUR TRADE AND ECONOMIC DEVELOPMENT CORRIDOR

The Mercosur (*Mercado Común del Sur or* Southern Common Market) is a sub-regional bloc that includes Venezuela, Brazil, Paraguay, Uruguay and Argentina.[181] This has the aim of establishing a free-trade area across South America. The Mercosur has laid the groundwork for the emergence of a trade and economic development corridor that runs from Rio de Janeiro (Brazil) to Valparaíso (Chile), through Mendoza (Argentina). This Mercosur-Chile corridor joins together a number of economic hubs connected to different major transport corridors. It covers an area of 3.46 million km^2. Its population comprises 36.8% of the five countries' total population.

The corridor links four of Latin America's largest urban economies with a network of smaller i-cities. It contributes to almost 46% of the total GDP of those countries that form the sub-regional bloc, which together had an average annual growth rate of 3.7% in 2012. The development of the corridor has brought about many benefits for i-cities, yet there are significant challenges when it comes to removing barriers to trade and investment among all the countries that together form the corridor. The map shows the Mercosur-Chile economic and development corridor.[182]

Map showing the Mercosur-Chile economic and development corridor



3.5.2 Trends and national urban policy responses in Latin American and Caribbean i-cities

Latin America and the Caribbean began their demographic and urban transition after the Second World War, with the significant impact of economic migration from Europe and internal displacements from rural areas towards both capital cities and the main secondary cities (e.g. Rosario or Córdoba in Argentina). At that time the main industrial and logistics infrastructure, essential to economic development, were being developed in those cities. A number of countries in the region progressively adopted policies of import substitution and industrialization after the 1929-1930 Great Depression and after the Second World War, in particular, large economies such as Brazil, Argentina and Mexico. In the 1970s, the global oil crisis stressed the risks of this model, triggering a debt crisis that 'conditioned' many Latin American economies until the 1990s (the so-called 'lost decade').

During this period, urban growth continued at different paces in all larger i-cities (and to a lesser extent in smaller ones) mostly through rural-to-urban migration but, in some areas, as a result of fleeing conflict zones, as was the case in Colombia (36% of urban population growth in the 1980s) and Central America. Since the late 1990s, 'demographic transition' in South America has stabilized (the urban population was 75% of the total population in 2000 and 80% 15 years later). Migration has turned into a mainly inter-urban phenomenon, whereby the younger employable population is moving from cities that offer fewer working opportunities to more dynamic ones. Significantly, these recipient cities are no longer just metropolises.

In most countries in the region, this process has merged with ongoing 'democratic transition'. This is eliciting administrative and fiscal territorial decentralization, strengthening the role of local governments, supporting democratization through participative democracy and innovative city governments (like Porto Alegre, Ilo, Villa El Salvador, Manizales and many others), at the same time designing more sustainable and balanced territorial development. Moreover, while urban growth in major metropolitan areas has increased at a slower pace in past years, i-cities have experienced continued increase in their population, even though in most cases they have not had adequate economic and technical resources to deal with the shocks and risks that stem from it. These weaknesses have prompted widespread peri-urban growth and the creation of new informal settlements, which, particularly in i-cities, require more effective public-driven land management policies to fight urban dispersion and fragmentation.

In general terms, Latin American regions have evolved at variable speeds in the face of diverse realities and challenges. Inequality between and within i-cities and metropolitan areas has been increasing. In landlocked i-cities in fragile ecosystems like the Amazon, urban expansion tends to aggravate the environmental problems created by extensive agricultural development and logging. Weak planning and territorial management beyond

Photo: Nico Kaiser - Mendoza (Argentina).

urban areas are still a vulnerability for many Latin American economies.

In recent years, along with restructuring their economic and regional systems, many countries have started urban reforms. There is increasing recognition that together with achieving a better balance of economic and social development, Latin American countries need to improve the management and development of cities to boost their attractiveness. Countries such as Brazil, Bolivia, Colombia, Ecuador and Mexico have developed NUPs with different priorities: control of urban expansion, urban mobility, metropolitan governance, i-city cooperation and more balanced territorial approaches (see Box 3.6 on the Colombian experience). Ecuador has developed a national territorial strategy, with nine zones for sustainable urban development. This is to strengthen municipal powers and includes the concept of *buen vivir* (good living) in the national constitution. Brazil initiated substantial legal reforms (e.g. introducing the Statute of Cities) and in 2003, created the Ministry of Cities (*Ministério das Cidades*), assisted by the Council of Cities (*Conselho das Cidades*), a deliberative entity of representatives from local authorities and civil society. This process provided impetus for the development of urban policies, with the aim of promoting more equity, efficiency and social inclusion in cities. As a result, by 2013, almost all municipalities with more than 500,000 inhabitants had adopted a master plan. However, the results are still uneven, as many reforms were only partly implemented and investments in urban areas remain insufficient.

In most cases, however, **national sectorial urban policies are primarily designed to address the problems of larger urban areas and tend not to contribute specifically to issues with which i-cities and smaller municipalities are concerned**. NUPs must acknowledge the contribution of i-cities to economic advancement, strengthen i-cities' regional leadership in rural areas, and support the creation of economic corridors and clusters that improve competitiveness and inter-municipal cooperation. This requires improvement of physical connectedness (transport, communications, energy), as well as bolstering lending capacity of administrative and social services and economic innovation. For many Latin American i-cities, cooperation with the hinterland and regional integration are gateways both to enhanced economic and social opportunities and the reduction of environmental and structural inequalities between rural and urban areas. Regional integration projects and institutional frameworks such as the Union of South American Nations (UNASUR), the Central American Integration System (SICA), and Mercosur should play a major role in policies that promote inter-city cooperation, rational infrastructural planning, and reduced bureaucratic red tape. In this regard, empowering institutional mechanisms such as Mercosur's Consultative Forum, that brings together municipalities, federate states, provinces and departments of Mercosur member states,[184] can be a valuable instrument of progress and cooperation.

BOX 3.6 COLOMBIA AND THE CITY SYSTEM MISSION

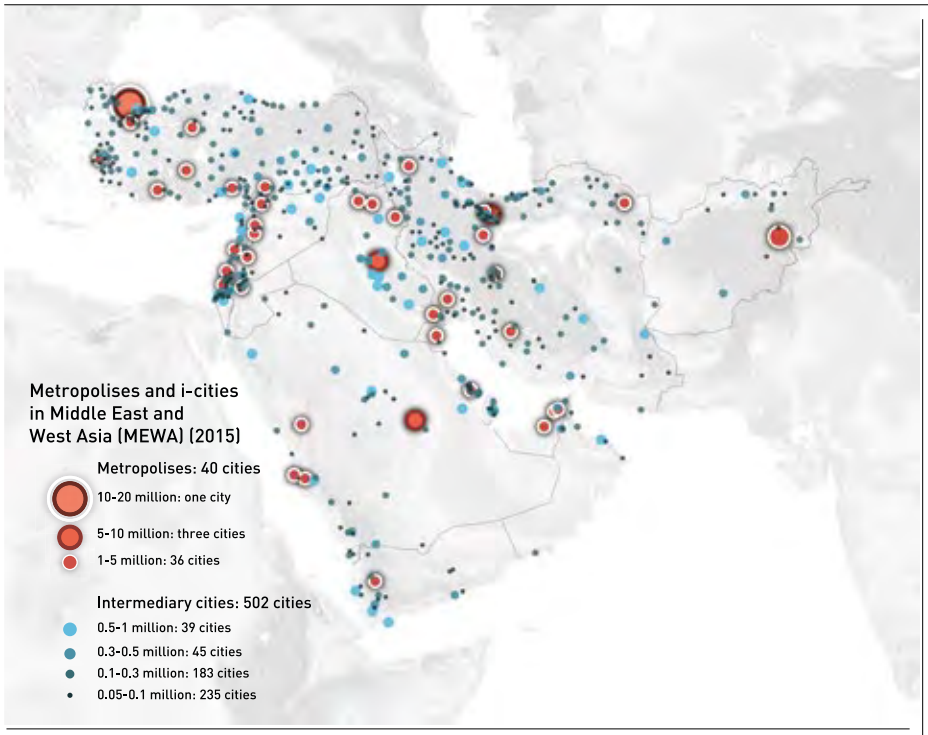
The Colombian government acknowledged, through its 'Prosperity for All' national development plan (NDP) 2010-2014, the need to bolster its city systems and reap the benefits of agglomeration economy and urban development as tools to break down regional inequality and poverty. The City System Mission set up by the NDP in 2012 published in 2016 a synthesis report *A National Policy for a System of Cities in Colombia with a Long Term Vision*. The Report highlights the physical isolation and weak economic specialization of many Colombian i-cities, a feature shared by many other middle-income regions in the Global South because of a general weakness in territorial infrastructures, institutional coordination, financial mechanisms and supra-municipal management. The Mission tried to overcome this situation by acknowledging the role of corridors and integrated urban-regional sub-systems. It identified three main groups of i-cities: a) associations of mono-nodal i-cities, e.g. Bucaramanga and Barrancabermeja; b) functional and economic corridors of i-cities e.g. the Cafetero and Montería-Sincelejo axesan the rural and the urban; c) historical corridors that have been steadily growing, e.g. the Bogotá-Fusagasuga and Bogotá-Cúcuta axes.

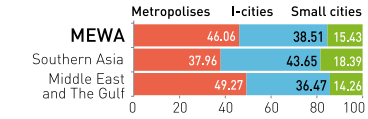
Ultimately, metropolitan areas are still the most relevant example of supramunicipal management in Colombia's system of cities, and certainly are a model for many i-cities now beginning to cooperate. Similarly, the 'Plan Contracts' legislation introduced in 2012 has proved to be a valuable tool to foster territorial cohesion. This has improved coordination between central government and territorial entities to identify strategic projects with regional impact, especially as far as transport infrastructure, basic services, participation and diverse funding sources are concerned.[183]

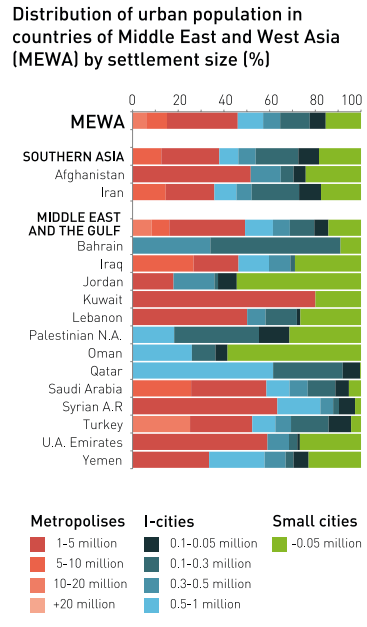
3.6
URBAN SYSTEMS AND INTERMEDIARY CITIES IN THE MIDDLE EAST AND WEST ASIA (MEWA)

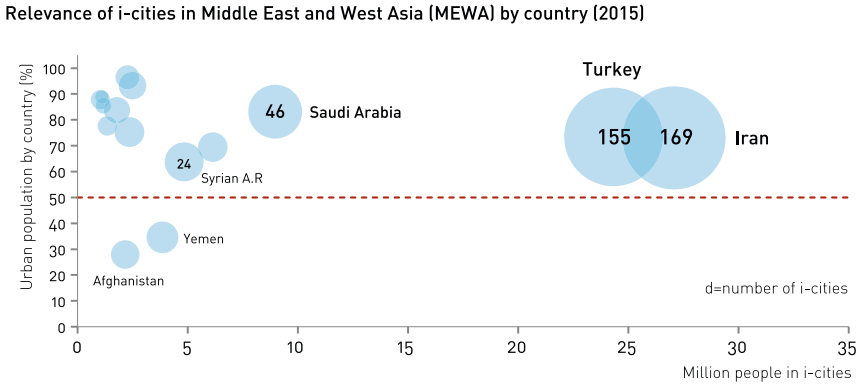
Figure 3.8 **MEWA distribution of population by settlement size and urban population weight in i-cities**

Source: UCLG and CIMES-UNESCO









3.6.1 Spatial integration and functional balance of i-cities in the MEWA region

The MEWA region has 502 intermediary cities, which in turn host 38.5% of the country's 236 million urban dwellers. These figures make the region's level of urbanization (67.8%) the third highest in the Global South, after Latin America and Oceania. Iran and Turkey are the region's most populous and dynamic economies. They have the highest concentration of i-cities (65% of all i-cities in the MEWA region), 57% of the i-city population and 22% of the urban population. This is followed at quite a distance by Saudi Arabia (46 i-cities), the Republic of Syria (24

i-cities), and the rest of the smaller countries on the Mediterranean coast and the Arabian Peninsula. All these countries, however, tend to record high levels of urbanization, with the sole exception of Yemen (34.6%) and Afghanistan (28%).

Monocentric/polycentric regional spatial structure in the MEWA region

The structure of the systems of i-cities in the MEWA region varies significantly, according to the countries population, area, climate factors and the number of cities they include. Countries that are mostly rural such as Afghanistan and Yemen have developed hypertrophic metropolitan areas. Kabul (Afghanistan) concentrates 51.7% of the country's urban population, Yemen's capital, Ṣan'ā' 33.5%. Smaller Gulf countries concentrate almost their entire population in their capital cities' metropolitan areas, as is the case for Kuwait City (with the important i-city industrial suburb of Hallawy), Dubai (Qatar), and the Sharjah-Abu Dhabi-Ajman metropolitan area in the United Arab Emirates (UAE).

The largest and most populous countries in the MEWA region tend to develop polycentric urban systems

Conversely, the largest and most populous countries in the MEWA region tend to develop polycentric urban systems. Iran, Iraq, Saudi Arabia and Turkey all share this pattern. Iran's urban population is distributed across eight large cities and provincial capitals (35.6%) and 169 i-cities (46.6%), most of them in the smaller provinces in the north of the country, between the borders with Turkey and Iraq and the Caspian Sea. Most of Iraq's 14 i-cities are located in the Tigris and Euphrates' basin while its five larger agglomerations are all in the northern provinces. Despite having one of the world's most dynamic megacities in Istanbul (hosting 25% of the country's urban population), Turkey has developed a polycentric urban system articulated in seven metropolises and 155 i-cities distributed homogenously across the country's geography. Several concentrations of i-cities have grown up in the regions surrounding Istanbul and Izmir, on the southern Mediterranean coast, and along the Syrian border. In contrast with general trends elsewhere, about 40% of the urban population live far from the coastline or navigable waterways.

Coastal, inland and landlocked MEWA intermediary cities

The MEWA region was historically the cradle of stable urban human settlements, and some of its i-cities have in fact been urbanized for several millennia. I-cities in the MEWA region tend to be heavily concentrated along the coastline. On the Mediterranean coast, many important ports service large hinterland areas and inland cities, e.g. Tripoli, the second city of Lebanon, has been a northern infrastructural 'anchor' for a string of i-cities that extend down to Beirut. Many of these ports are regional centres of i-city size (e.g. Latakia and Tartous in Syria or İskenderun in Turkey), rely on a broad mix of trade, services and industries and have traditionally also been terminals for cross-regional hydrocarbon transit. I-cities have also spread along the Black Sea coast (e.g. Eregåğli, close to Istanbul, and the Samsun-Giresun-Trabzon corridor in northern Turkey). In Iran, many i-cities are located on the Persian Gulf coast (e.g. Bandar-e 'Abās) and along the Zagros mountain range. In the Gulf States and Saudi Arabia, large-scale urban industrial development has been located in specific export processing zones (EPZs).

The 'Fertile Crescent', delimited by the Tigris and Euphrates river system, hosts several inland i-cities. Inland systems of cities have also developed at the Turkish, Syrian and Iraqi border and well into Iran. Most inland cities in the MEWA region, however, are generally poorer, smaller and less accessible and developed than coastal cities. Many inland i-cities have grown according to a tight design and with high density, a tendency imposed by water scarcity and climatic conditions (e.g. Homs in Syria and Kayseri in Turkey), in contrast with the more common low-density 'garden city' design of coastal cities. Many inland i-cities of Afghanistan, Iraq, Palestine, Syria and Yemen, for instance, have been severely damaged by years of war and conflict in the last three decades. Other i-cities in the MEWA region are located in earthquake risk zones, e.g. Bam (Iran), which was badly hit in 2003. These factors are inducing massive population movement, demographic shifts and skill losses in portions of the region, where youth flee in search of opportunities in larger cities or other countries. **Conflict-prone for over a century, many areas of the MEWA region have traditionally suffered from structural difficulties, and obstacles to establishing thriving, stable and efficient states and economies**. Within their urban systems, i-cities are among the most vulnerable to this kind of uncertainty and instability.

Functional balance of MEWA i-cities: clusters and corridors

I-city clusters have been a more recent development in the MEWA region. These have generally grown around valuable economic locations and interconnectivity and logistical assets. Around Istanbul, for example, an automotive industry cluster has developed in the Marmara region, reaching the Bursa metropolitan area and the i-city of Adapazari. This is mostly thanks to its reliable technical, transport, logistical and educational infrastructures. Exports – especially to the EU – have also been a driver for clustered industrial development next to logistical mainstays. Management difficulties and inefficiencies have hindered the development of i-cities around the larger Istanbul metropolitan area, increasing the pressure on land-tenure accessibility and service provision in the peri-urban areas of the capital. In other parts of the region, as mentioned above, conflict and political instability have also prevented positive phenomena of i-city clustering, e.g. along the Lebanese and Palestinian coastline of the Mediterranean. In Palestine, the Israeli blockade and consequent control of territorial resources – especially when aggravated by war destruction – has been a determinant factor.

Clustering and agglomeration outcomes have been different in areas richer in resources. Jīzān (Saudi Arabia) has developed its local economy through heavy industries in the energy and steel sectors, together with secondary textile, pharmaceuticals and biotech industries. To shift economic growth to its secondary cities, Saudi Arabia has also been improving the infrastructure of the areas surrounding Asir, Hail, Hofuf, Tabuk and Taif.[185]

There is an emerging pattern of i-city corridor development in the region, in particular along the Turkish and Lebanese coastlines. These corridors, especially between Beirut and Tripoli (Lebanon), Antalya and Alanya, and Istanbul and Marmara Ereğlisi along the Sea of Marmara (Turkey), extend for over 100km and link various smaller towns and cities in a continuous linear agglomeration punctuated by cores of business activity. The developments are putting significant pressure on smaller local authorities to make it possible for these *de facto* i-cities to provide adequate essential services, deal with the impact on traffic and congestion, and promote sustainable development along coastline sectors that are expected to be subject to increased erosion and inundation risks. In the Gulf States, the phenomenon is mostly in the form of a

Photo: Reibai - Shah Cheragh Mosque, Shiraz (Iran)

series of planned urban-growth nodes along the inter-regional highway networks. In the Gulf area, a USD 25 billion project has been developed with the aim of creating a regional rail system. Additionally, Saudi Arabia is developing the Saudi Landbridge Project, a 1,000km rail line connecting Jeddah, Riyadh and Bahrain. If completed, these rail corridors would further consolidate the MEWA eastern coasts' settlements as a relevant and cohesive extended metropolitan region.[186]

3.6.2 Trends and national urban policy responses in the MEWA region

The driving factors of urbanization in the MEWA region are complex. Consequently, systems of the city and urban patterns tend to differ significantly from one country to another.[187] This is due also to variations in income and resources, politics and economics, political stability, recent history of conflict, social cohesion, and modes of production across the region. Doha, the metropolis capital of Qatar, has a GDP per capita of over USD 93,000 per year, compared with just USD 2,900 in Palestine, and even less in Gaza (USD 876).[188] These vast differences translate economically into a significant contrast in the quality of urban space and the design of urban policies.

The most advanced urban economies of the Gulf countries have world-class metropolises that have grown into global financial centres. Meanwhile, fragile economies like Afghanistan, Yemen or Iraq face a constant challenge in just guaranteeing a minimum level of effective basic services for their inhabitants as well as governance for their cities, in particular in those smaller centres located farthest from larger metropolitan areas or close to areas of conflict. Accordingly, Afghanistan, one of the world's weakest economies, looks to its NUP and spatial strategies as a means of guiding its urbanizing transition during the next three decades, and promoting geographically balanced development. The spatial strategy should aim to reduce the inward migration pressure on the capital, Kabul (already a primate city), by stimulating regional hub cities, harnessing resource and city corridors, and improving urban economy and job creation capacity. Afghanistan's NUP should promote more citizen-oriented urban development, with a strong focus on the respect, protection and promotion of human rights.[189]

Photo: Andrew Moore - Muscat (Oman).

National urban policies in MEWA countries cannot neglect the consequences of war, political conflict, and instability in the region. I-cities such as Irbid or Az-Zarqāʾ (Jordan) have experienced the impact of refugee inflows from neighbouring Syria (Mashreq countries, in general, are hosting 50% of the world's registered refugees). This is even though the Jordanian government has judiciously promoted policies to strengthen urban infrastructure and services for exposed communities and municipalities, so as to be prepared and adequately welcome and manage these mass movements. Similarly, the inflows of millions of migrants have made dozens of eastern Turkish i-cities the hosts of the highest concentrations of refugees in the country. They face the management of refugee inflows often without adequate resources and support. Cities like Tripoli (Lebanon), however, have shown remarkable resilience in post-conflict situations, introducing city plans to revitalize deprived and war-torn inner-city areas. In spite of all the improvements, however, **the refugee crises caused by both older and present conflicts are still a pressing issue for the governments of Turkey, Syria, Jordan, Lebanon, Afghanistan, Yemen and the Palestinian National Authority, one that affects national development and has had overwhelming consequences for urban governance**.

Gulf economies, on the other hand, face the challenge of diversification, as their one-commodity economies are increasingly vulnerable to external factors (e.g. raw material prices on the global market and reserve availability). Prospects are more favourable for those producers far-sighted enough to successfully diversify their economies and promote more sustainable development and smart growth at the urban level (e.g. the UAE).

Emerging economies such as Turkey and Iran are struggling with the modernization of urban areas and the limitation of peri-urbanization processes. They are in dire need of modernizing legislation, both to better manage the processes of irregular settlements and increase the government's ability to prevent, regularize and/or upgrade informal settlements and activities. This is even more pressing in i-cities, especially in Turkey, built in landslip and earthquake-prone areas. A comparable lack of regulatory discipline has also affected the urban systems of Lebanon, Jordan and Iraq, resulting in generally poor-quality construction, road networks and basic service provision. In central areas of Turkey, Iran and Yemen, inland i-cities in inhospitable or arid territories lack the fundamental connectivity to larger urban areas and access to logistics or more valuable markets and human capital to engage effectively in urban integration and development. The effect of this is even more apparent in the Kurdish areas of the region.

Despite the (often extreme) conditions experienced by the countries in this region and the historical, cultural, social and economic fragmentation of many of them,[190] several have made significant efforts to develop urban policies and/or promote urban reconstruction – as happened in Lebanon after the civil war, and Iraqi Kurdistan. Some countries have been discussing the development of urban policies. These include Kuwait (*2035 Vision*), Jordan (*2006 National Land-Use Plan*), Bahrain (*2007 NUP*), Oman (*2010 National Spatial Strategy*), and Saudi Arabia. Nevertheless, in most MEWA countries, the reconstruction of destroyed or severely damaged cities, and the effort to cope with refugee flows, will require intensive rehabilitation and sufficient capital for such all-encompassing plans. Funds will be needed to pay for housing, infrastructure and basic services to respond to fundamental human rights and needs. Reconstruction – not only physical but also economic, social and cultural – is likely to be the main challenge for conflict-torn countries, deprived as they currently are of human capital and basic resources. Development in the MEWA region, and in i-cities in particular, necessitates peace and stability in the first instance.

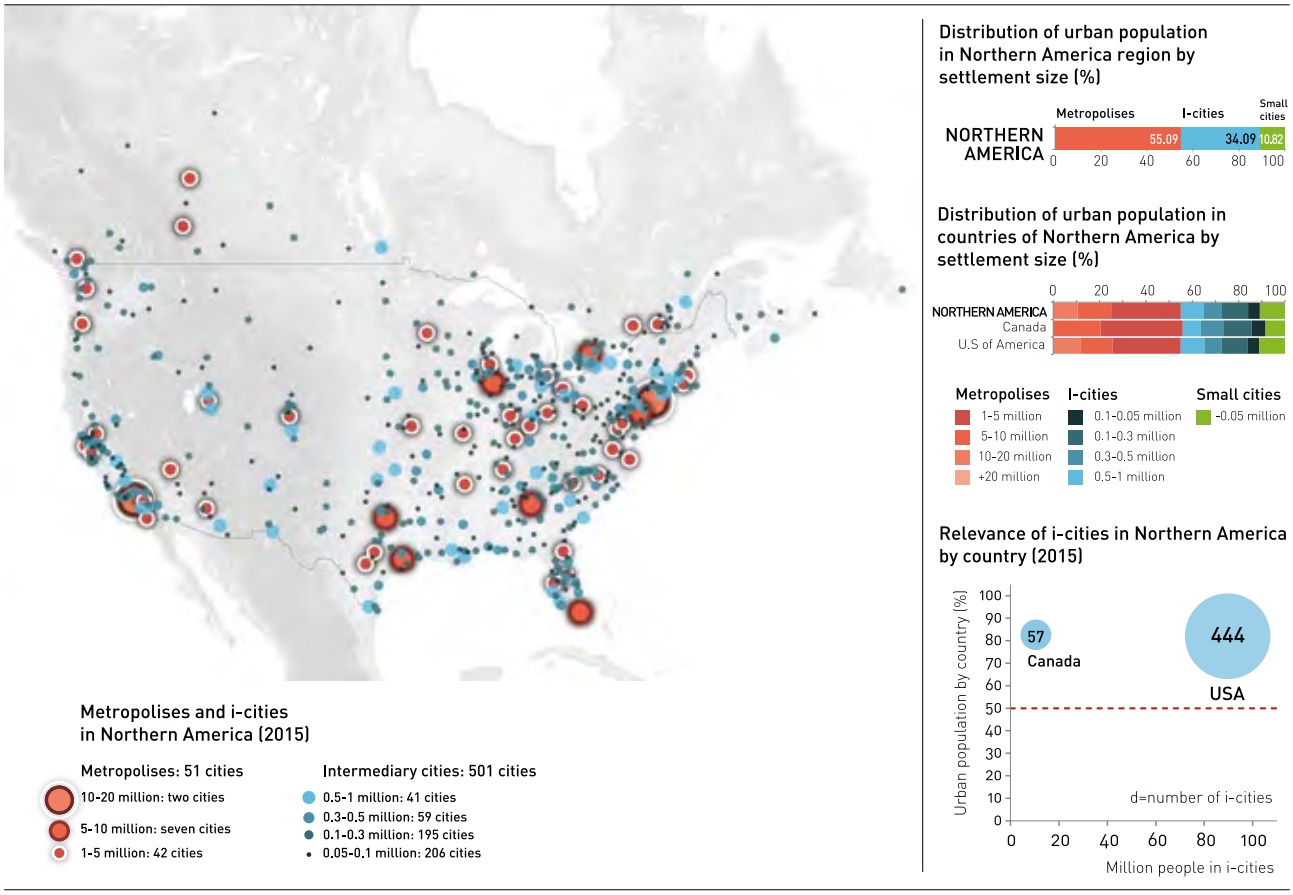
Strategic, comprehensive urban planning – taking into account cities and their surrounding areas and economies – is necessary to promote the kind of sustainable growth that upgrades, rather than degrades, urban and rural ecosystems. This needs to address serious concerns such as food and water security for the growing urban population amidst a growing rural-to-urban transition, in an integrated and balanced way. Sustainable and safe cities require a comprehensive assessment of natural risks and vulnerabilities, especially for i-cities in the less developed countries of the region. Mitigation efforts (e.g. improved design, and enforcement of seismic-ready building codes) will likewise be essential to reduce critical impacts.

In most MEWA countries, the reconstruction of destroyed or severely damaged cities, and the effort to cope with refugee flows, will require intensive rehabilitation and sufficient capital for such all-encompassing plans

3.7
URBAN SYSTEMS AND INTERMEDIARY CITIES IN NORTHERN AMERICA

Figure 3.9 **NORTHERN AMERICA distribution of population by settlement size and urban population weight in i-cities**

Source: UCLG and CIMES-UNESCO



3.7.1 Spatial integration and functional balance of Northern American i-cities

The Northern American region includes Canada and the United States of America. Only 34% of the region's urban population live in i-cities (or 'middle-order' cities, as they are defined in the United States, a smaller proportion than in many other regions. There are currently 501 i-cities, 444 of which (88.6%) are in the United States. Systems of cities in the United States and Canada are strongly dependent on states and provinces. These have shaped the legal and institutional framework for local governments, thus creating huge diversity in urban systems throughout the region.

Monocentric/polycentric regional spatial structure in Northern America

Three metropolitan areas – Toronto, Vancouver and Montreal – concentrate almost 30% of Canada's population. While the structures of the urban systems of Canada and the United States differ in metropolitan areas, they share similar patterns at the level of i-cities. Both countries host established, complex metropolitan corridors – e.g. the New York-Washington D.C. corridor, Florida's city system, and the coastal agglomerations of the San Francisco, Los Angeles, and Seattle-Vancouver areas. A large number of i-cities are located along these urban development corridors. A significant proportion of the

population, moreover, lives in interior i-cities: the Great Lakes system and the large basins along and around the Mississippi River and its tributaries host significant urban concentrations.

Northern America has one of the world's best-planned systems of cities. Most i-cities are connected by well-developed rail, road and airline networks. The pattern of i-city development revolves ostensibly around automotive transport and low-density expansion. The recurring blueprint of urban development implies a concentrated central business district, surrounded by dispersed peripheral industrial estates. Many of the more mature i-cities are still addressing the challenges created by structural adjustment programmes and policies of the 1990s and the 2008 global financial recession. Other i-cities – concentrated especially in the states of California, Texas and Virginia, and in the New England area – have shown resilience and an ability to diversify their economies, thanks primarily to substantial investment in information and knowledge technology, as well as advanced extractive industries. Technology investment in Toronto and Vancouver, for instance, has prompted the emergence of various spin-off businesses in smaller i-cities.

Coastal, inland and landlocked Northern American i-cities

The East and West Coast of the United States host one of the world's largest concentrations of cities. On the East Coast, the regional metropolitan conurbation of Boston, New York, Philadelphia, Baltimore and Washington D.C., is home to about 40 million inhabitants, a figure relatively similar to that of the regional agglomeration of Tijuana, San Diego, Los Angeles, San Francisco and Sacramento on the West Coast. The Great Lakes area concentrates the country's third largest conurbation. From Washington D.C. down the East Coast to the metropolitan area of Miami, the Atlantic coast is scarcely urbanized, with significant distances separating many i-cities. The same pattern characterizes the West Coast north of San Francisco up to Seattle.

Most of the United States federate states are landlocked. Many concentrate their populations in their respective state capitals, which are connected in a dense conurbation by a road network that favours private motorized traffic. In the four least populous states – Montana, Wyoming, North Dakota and South Dakota – the state capitals and the main economic centres (e.g. i-cities such as Bismarck, Billings or Rapid City) perform the key functions of regional i-cities. Besides their role as administrative centres, these cities have structured the country's most productive dairy and agro-alimentary industry. In Mid-Western states like Kansas, Oklahoma, Arkansas and Tennessee the network of i-cities becomes relatively denser: Wichita and Tulsa, core i-cities in Kansas and Oklahoma, effectively articulate the economy of the rural environment of these two states.

In Canada, the consequences of distance and isolation due to the climatic and geographical characteristics of the country are far more apparent than in the United States and have a significant impact in i-cities such as Saskatoon and Regina, in the scarcely-populated western province of Saskatchewan.

Functional balance of Northern American i-cities: clusters and corridors

A few metropolitan regions in Northern America are experiencing the development of i-city clusters. In the Washington D.C. area, the bordering states of Maryland and Virginia have included intermediary and small cities within a 100km radius from the Washington metropolitan area in their shared development strategic planning. The Carolina Research Triangle is a portion of North Carolina clustered around North Carolina State University, Duke University and the University of North Carolina at Chapel Hill. These are high-level R&D centres that have revitalized the joint economic and policy frameworks of i-cities like Raleigh, Durham and Chapel Hill. The Research Triangle developed into an advanced technology-intensive cluster that benefits from a direct link to Washington's economy and the federal government's procurement in the defence, information technology (IT) and bio-technology industries.[191] Many large companies and public agencies are taking advantage of lower operating costs to relocate their back-office functions, administration and deliveries and R&D activities in expanding i-cities that are grouping into city clusters at the border of metropolitan regions. A similar pattern of development has taken place in the areas around the Dallas-Fort Worth agglomeration in Texas, Chicago, Los Angeles and Toronto.

Over the last few decades, several complex i-city corridors have expanded throughout the Northern American region,

Northern America has one of the world's best-planned systems of cities. Most i-cities are connected by well-developed rail, road and airline networks

especially along the routes drawn by the large interstate thoroughfares that cross the continent. Unlike i-city corridors in other regions of the world, in Northern America, a tradition of good planning and comprehensive administration has prevented extensive building along highways. I-city corridors in Northern America are developing rather as a series of hubs and nodes of smaller cities that maintain, nonetheless, the urban features of i-cities. Salem (in the state of Oregon) has a population of 160,000 inhabitants and has been very successful in capitalizing on the development of specific international trade corridors under the North American Free Trade Agreement (NAFTA) to create jobs and establish new kinds of industry in the area.

3.7.2 Trends and national urban policy responses in Northern American i-cities

The 'belts' discourse gave a reliable picture of the American economy for years, but the recent economic downturn, both nationally and globally, has radically changed the productive map of these areas – as well as of the country as a whole

The Northern American system of i-cities is a tale of two sets of cities. One is a system of successful and dynamic cities; the other is a set of cities in a state of stress and decline. Historically, especially in the United States, systems of cities were described using a 'Sunbelt and Rustbelt' narrative. Sunbelt cities were thriving urban agglomerations with steep growth rates concentrated in the southern-most third of the country, stretching from one ocean coast to the other. Since the 1970s, i-cities along the Sunbelt have benefited from more favourable taxation, high-income retirement-driven migration, warmer climate for the agro-alimentary industry and, more recently, from the boom of the technology and knowledge-driven economy, especially in the South-West. Conversely, the Rustbelt moniker identifies a region across the northern Mid-West and Atlantic coast of the United States that, though flourishing thanks to the metallurgic industry in the first half of the 20th century, has entered a period of steady socio-economic decline since the 1980s. The functional economy established in the area around labour-intensive steel and manufacturing industries did not manage to compete in the global market and never really recovered from its extensive decline. With varying degrees of success, at least until the financial crisis of the late 2000s, certain i-cities had managed to reconvert and diversify their economic activities. The 'belts' discourse painted a reliable picture of the American economy for years, but the recent economic downturn, both nationally and globally, has radically changed the productive map of these areas – as well as of the country as a whole.

Specialized regional clustering has been a fundamental component of the new map of economic productivity and performance (see Box 3.7) that emerged in the aftermath of the crisis and the beginning of recovery throughout the United States. I-cities embedded in clusters now tend to fare much better as regards wealth and competitiveness, especially those that are strategically located in technologically advanced regions with a tradition of investment in innovation and ICT. Areas with logistics infrastructure or privileged access to inter-regional or international trade – e.g. border areas of California, Texas, Washington and the Great Lakes region – record the most improved economic performance and job creation rates.[192]

The approaches to urban policy development in Northern America are very similar to those of Australasia. Northern America has a strongly decentralized federal form of government, wherein urban policy is a state-level responsibility. The United States, however, was one of the first countries to establish a Housing and Urban Development (HUD) department at the federal level. The United States and Canadian governments have, at times, sought to address sought to address national housing policy issues, but they never managed to broker consensus among the federated states on urban policy and development matters.[193] Similarly, states have generally focused on competitiveness for metropolitan regions and developing cities, but even in the most proactive contexts most decision-making has stalled on vertical dialogue across the different levels of government.

At the same time, direct expenditures on the improvement of logistics and transport infrastructure for efficient supply chains among different city systems have been traditionally hard to implement. Northern American i-cities will be more and more dependent on increased efforts by local governments and businesses to reduce transaction costs and boost competitiveness and efficiency. The region has substantially underinvested in the critical infrastructure needed to support modern services and technology-based economies. Distance from markets and suppliers, the lengthy supply chains and the narrow skills base have limited opportunities for some i-cities in declining areas of Northern America to recover, innovate and develop again. Northern American i-cities will need to become more efficient and sustainable,

BOX 3.7 MILKEN'S 2013 BEST-PERFORMING CITIES INDEX IN THE UNITED STATES

Source: http://www.best-cities.org/best-performing-cities-2015-map.html

For the last few years, the United States and Canada – not dissimilar from Europe and Japan, among other developed economies – have struggled with jobs, investment, and economic growth in their i-cities. In certain areas, the i-city population has been declining. Whereas coastal and southern cities once in the Sunbelt economy were prosperous and growing, thanks to internal migration from Rustbelt cities, the traditional binomial relationship has crumbled under the pressure of common economic and social development problems. Especially in the aftermath of the 2008 global economic crisis, local governments, businesses and civil society alike have worked to revamp the most affected urban areas, socio-economically. Moreover, the explosion of the tech-driven, knowledge-intensive economy throughout the country has contributed to a radical, paradigmatic shift in the distribution of opportunities, wellbeing, wealth and, ultimately, happiness across the United States. The Milken Institute publishes an annual classification (see figure below) of United States metropolitan and urban agglomerations with a normalized index of performance, taking into account a number of variables spanning economic productivity, innovation, generated wealth and inequalities (both economic and social).

The 2013 report draws an interesting map of economic performance in the United States, with some of the best-performing areas being clusters of i-cities outside the (traditionally more visible) largest metropolitan regions. The areas of Austin and San Antonio (Texas), Boulder (Colorado), Charleston (South Carolina) or Provo-Salt Lake City (Utah) have emerged as powerful, innovative, attractive competitors to the big drivers of this innovation and modernization process – such as the Bay Area (San Francisco, Oakland, San Jose) or the Los Angeles metro – particularly in the technology and energy sectors. Further initiatives to protect development and growth in i-cities – which traditionally enjoy fewer capabilities and risk-absorbing policy instruments – are certainly needed. But even though the report goes on to stress certain unsolved consequences of this specific type of tech-induced growth (growing wage inequalities by gender or ethnicity), it also emphasizes how this new wave of expansion and the centrality of smaller, more 'human-sized' i-cities have had positive effects in terms of social inclusion. These correlate positively with happiness and wellbeing indicators in similar studies.[194]

Milken Institute's 'best-performing cities' index, visualized on a map.

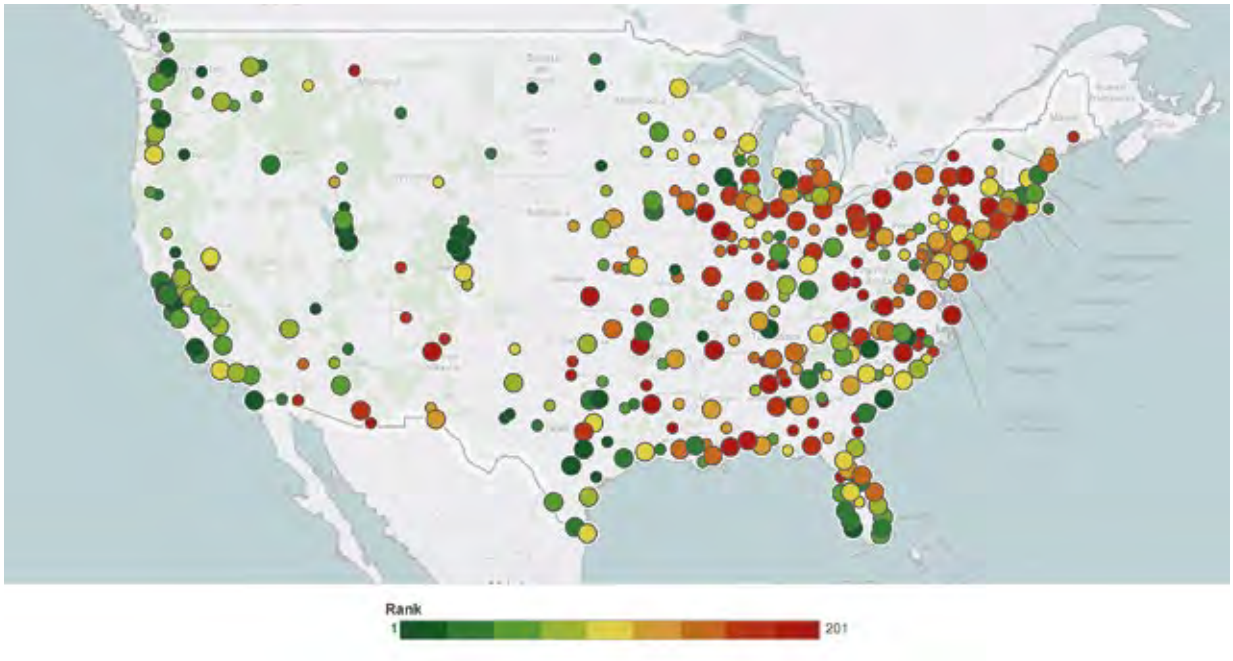


Photo: Steven Pisano - Long Island (United States).

especially by strengthening transportation, communication and trading networks, among as much as between themselves and larger metropolitan regions.

Importantly, urban policies and their degree of integration and effectiveness have a serious and sizeable effect on the wellbeing and quality of the life of citizens. The social and human implications of urban policies can be as relevant as economic ones even if not especially in the context of developed, technologically advanced economies like Northern America's. As mentioned above, low density and dispersion have been traditional elements of urban expansion in Canada and the United States. In a context of economic growth and high-income development, the pattern of land use and urban policy-making in Northern America has fostered urban sprawl and gentrification - perhaps the two most important social phenomena of urban development.

Urban sprawl in the United States demonstrates several features peculiar to this region. There are long-standing data that prove that income inequality is much higher in low-density medium and small urban agglomerations.[195] Given also their rising gentrification rates, i-cities have become a breeding ground for a number of key socio-economic factors intimately connected with urban expansion, wealth distribution and social inequality. This gentrification is a by-product of rising income inequality in the booming cities of this century's 'smart economy', pushing traditional residents out of refurbished, dense, central neighbourhoods due to higher land, tenure and service costs. These phenomena affect the fabric of communities and jeopardize their integration, quality of life and, to a growing extent, environmental justice. Inclusion, public deliberation and social engagement should be crucial components of urban policy of the near future – especially for booming Northern American i-cities.[196]

3.8 MAIN TRENDS IN NATIONAL AND REGIONAL URBAN SYSTEMS AND I-CITIES

This brief overview of urban systems and the place of intermediary cities in the national urban policies (NUPs) of the world's different regions aims to provide fresh insight into the dynamics and changes that have transformed national and regional systems of i-cities. It also seeks to provide a better understanding of the current role and trajectory of these cities within the global urban landscape.

The review stresses the heterogeneous development experienced by i-cities. The

factors that make i-cities successful vary significantly across regions. As well as their scale, the review highlights the importance of factors such as countries' levels of development, location, functions, connectivity and interaction with other systems of cities. Analysis of polycentric versus monocentric systems, and the difference between coastal, inland and landlocked cities, emphasizes variations in their accessibility and availability of opportunities.[197]

All regions have undergone significant changes in the structure of their urban systems. As mentioned in the introduction to this section, hierarchical organization remains the structural basis of national urban systems, even though new dynamics have emerged to make them more diverse and complex. A new generation of successful cities are challenging the predominance of old hierarchical urban systems, developing new functional linkages and dynamic models. However, in many regions this process has led to distortions and growing inequality in spatial concentration: large agglomerations are driving urban development while i-cities are undergoing a different and dual process. Some are booming in regions closer to dynamic metropolitan areas, creating clusters and urban corridors and densifying the urban fabric; others are stagnating or even declining in areas more entrenched in an 'old' economy or in regions that are more that are decentred from the core areas. Environmental threats, at same time, are hitting more vulnerable i-cities, especially those located in coastal areas and insular regions, as shown in the Asia-Pacific region.

In both Latin America and Asia, i-cities are expanding within the most dynamic economic areas, often close to major urban agglomerations and within corridors linking these areas. The polarization between the main agglomerations and dispersed urban areas is also growing in transitional economies, e.g. Eastern Europe and the Caucasus. In developed economies such as in Northern America, there is a growing contrast between innovative i-cities, strongly-performing metropolitan areas and more traditional mature cities, e.g. Rustbelt centres in Northern America that are steadily declining. In Europe, despite a more balanced urban system, differences between prosperous i-cities closer to core economic areas and decentred shrinking i-cities are increasing. Addressing these matters is particularly challenging, especially in developing regions such as Sub-Saharan Africa. Here, i-cities are considered the 'missing link' in urban systems, differences within systems of cities are the greatest, and capacities to promote a more balanced urban management are weak.

The emergence of i-city clusters, in particular around large urban agglomerations and new urban poles, is fuelling the imbalance in national systems of cities in almost all regions. Many of the problems associated with the development of metropolitan areas have spilled over into these city clusters. But local governments in these areas do not have access to the same resources and capacities as metropolises and are struggling to support the provision of critical services and infrastructures. The evolution of these i-cities will require specific policies to strengthen the collaboration between, and the complementarity of, metropolitan areas and the surrounding rural areas, currently experiencing the greatest urbanizing pressures.

I-city corridors close to major transportation axes between large cities are growing rapidly, especially when they are linked by international corridors, such as in Northern America and Europe, Africa, Asia and Latin America. However, without adequate planning and infrastructures, many of the corridors in developing regions (e.g. Western Africa) are facing increasing problems of congestion, pollution, accidents and obstacles to trade (e.g. border-crossing issues). National governments and regional institutions should consider enhancing support to emerging corridors and, when necessary, facilitating cross-border cooperation between i-cities to boost their development potential.

Many countries in the world have or are developing urban policies and reforms along with the restructuring of their economies and regional systems. In most cases, national sectorial urban policies are primarily designed to address the problems of larger urban areas and booming economic regions, and to strengthen their competitiveness. Beyond the few exceptions mentioned above, NUPs tend not to consider systematically the specific issues facing i-cities and smaller municipalities. I-cities are also weakly addressed by regional declarations within the preparatory process towards Habitat III. Only Europe has a long-standing tradition of associating urban policies and territorial cohesion with specific programmes that try to build on the role of intermediary or mid and small-sized cities.

Beyond the few exceptions mentioned above, NUPs tend not to consider systematically the specific issues facing i-cities and smaller municipalities

Reforms in urban, regional or national planning, in economic development policies, and in strategic infrastructure investment are needed in all regions to address these imbalances and open up new opportunities for i-cities. This will not be possible, however, without a new approach to urban and territorial governance. There is a pressing need to create more collaborative governance systems that involve all levels of government and integrate sectoral and territorial policies. This calls for an effective multilevel governance approach that fosters holistic urban and territorial development strategies and policies. Larger involvement of i-cities in consultation and consensus processes to define national urban strategies is imperative.

The widening of socio-economic differences between metropolitan regions, i-cities and rural regions contributes to increasing inequalities, elicits migration to larger cities, and accelerates the marginalization of peoples and territories – a situation that benefits none of these areas. Since i-cities have a direct impact on small settlements and rural areas, their evolution has wider consequences on regional economies and societies, thus affecting territorial cohesion and integration. I-cities are thus pivotal to maintaining an economic and social balance between rural and metropolitan areas, as well as promoting regional development.[198]

On the other hand, i-cities must learn to operate on a different scale, to capture and create opportunities linked to the new trends in the global economy. They face formidable challenges to nurture growth and development, especially if they are not adequately connected or located in rapidly growing regions and urban systems. They should demand multi-level frameworks to push for national policies that support a more balanced approach to urban and territorial development. At the same time, i-cities should themselves exploit the collaborative advantages that come from working together rather than competing with each other, e.g. building sub-regional systems of i-cities, strengthening their cooperation within clusters and corridors, while also working closely together with metropolitan areas. Collaboration between i-cities will be one of the most crucial factors in creating opportunities for their communities and re-establishing them as a vital link in national and global systems of cities. If this is not addressed, the increasing level of distortion between urban systems and territories will have a critical impact on the achievement of the New Urban Agenda and the Sustainable Development Goals (SDGs).

Photo: UCLG - Mozambique.

4.

CONCLUSIONS: SHAPING THE AGENDA FOR INTERMEDIARY CITIES

The specific character and challenges of intermediary cities have, until recently, received limited attention in global literature and debates. Their pivotal role in the achievement of more balanced and sustainable urban development processes, and the reduction of territorial inequalities, demands that i-cities become more prominent within the New Urban Agenda and its implementation.

In the framework of the preparatory process of Habitat III, a few references to i-cities have been introduced to the global discussion. Within UN-Habitat, the resolutions on Agenda 2030, for example, have attached i-cities to the ongoing 'rural-urban linkages' debate, stressing the need for 'the reduction of disparity along the rural-urban continuum', and for less 'reliance on primate cities, as a strategy to promote decentralized growth'.[199] A more developed and comprehensive document was produced during the Thematic Meeting, 'Intermediate Cities: Urban Growth and Renewal', organized by the Habitat III Secretariat in Cuenca, Ecuador, on 9 – 11 November 2015.[200] Only the African and Asian Regional and the Latin American Declarations for Habitat III include brief references to 'mid-sized' or 'intermediate' cities, while the draft version of the New Urban Agenda mentions 'intermediate cities' once.

Building on the analysis of the previous sections, and taking into account some of the key messages presented in the Cuenca Declaration for Habitat III, this section will summarize key lessons to enhance the debate on the role and potential contributions of these cities to the New Urban Agenda and the achievement of the SDGs. Finally, the text presents messages and recommendations for possible actions.

4.1 MAIN TRENDS IN THE GLOBAL EVOLUTION OF I-CITIES

I-cities host 20% of the human population and are the connective tissue that links the 58% of the world's population that live in rural areas and small towns with the 22% that live in larger metropolitan areas. The efficiency and performance of i-cities are crucial to the cohesion of these territories and to national prosperity and wellbeing. Their involvement is essential to the achievement of most of the goals of Agenda 2030.

The traditional role, location and scope of i-cities is being functionally redefined in the context of evolving national and global systems of cities. I-cities throughout the world now face common challenges resulting from the increased asymmetry of performance, both between i-cities and metropolitan areas, and between i-cities themselves. The internationalization of finance and other trade sectors; growing exposure of national economies to worldwide competition and structural reform; and radical changes in production systems and the organization of

I-cities throughout the world now face common challenges resulting from the increased asymmetry of performance, both between i-cities and metropolitan areas, and between i-cities themselves

trade, have subjected i-cities to unprecedented pressures. In developed economies, de-industrialization and knowledge-driven technological development are two of the most visible symptoms of this shift. Local cultures, identities and traditions have suffered similar pressures from more globalized and 'standardized' cultural products.

The traditional role of i-cities as regional centres and providers of administrative and social services, oriented around local economic activities, has been called into question. Governance reforms have delegated responsibilities to elected local authorities in many i-cities, often without dedicating commensurate resources and powers. Many have developed advanced clusters serving major cities, or evolved into urban corridors that sometimes even straddle national boundaries. But for other i-cities, particularly those located outside or on the periphery of more dynamic regions, the reality is one of stagnation and decline.

When i-cities have adequate powers and capacities, experience shows that local leaders can mobilize their communities and take advantage of opportunities and foster innovation, leading to enhanced local development

An inevitable consequence of these macroeconomic trends is that the movement of capital accelerates from low-productivity to high-productivity urban systems.[201] Spatial reorganization can lead to strongly dualistic wealth accumulation effects. While capital gains are concentrated in growing urban systems and economically dynamic regions, shrinking cities are being affected by a depreciation of their assets and declining investments. Tackling this urban dualism requires diversified policies and investment strategies for 'core' and 'non-core' cities, to correct imbalances within countries and regions. Changes of such magnitude have disrupted the economic and social equilibrium of many territories around the world.

Meanwhile in developing economies, i-cities have often absorbed large informal settlements and economic activities and are struggling to manage growth effectively in order to deliver essential services and opportunities. As highlighted in Section 3, these phenomena are particularly acute in Sub-Saharan Africa and Southern Asia, which will be the recipients of the most intense urbanizing flows and, at the same time, have the weakest local government capacity to manage them. Preventive planning and improved land management will be key instruments to bolster the capacity of local governments, facilitate the integration of new dwellers into i-cities, and 'use' i-cities as buffers for migration from rural to metropolitan areas.

In this regard, as mentioned throughout the report, i-cities can take advantage of proximity and human scale to grow more resilient to external shocks, strengthen their social and identity fabric, and mobilize local capacities and assets. This degree of cooperation, innovation and local self-reliance is not often found, even in larger metropolitan areas where homogeneity is much less strong. This chapter highlights the experience of i-cities that have been able to capitalize successfully on their size, role and unique position. The many cities mentioned have managed to strengthen their link with the hinterlands; develop shorter and more efficient economic flows; support local markets and production; improve inter-municipal cooperation in service and infrastructure provision; start the transition to more knowledge and technology-driven manufacturing and services; and become cultural centres with strong touristic attractiveness.

When i-cities have adequate powers and capacities, experience shows that local leaders can mobilize their communities and take advantage of opportunities and foster innovation, leading to enhanced local development. Effective decentralization policies, fiscal devolution, and capacity-building policies are crucial for urban management and local governments to be empowered to take greater responsibility for the development of sustainable i-cities. A strong enabling environment is essential to encourage and stimulate participation and grassroots engagement by local communities and partners in the private sector, together with NGOs, academia and civil society to develop sustainable i-cities. Even beyond formal legal frameworks and mechanisms, local leaders and authorities should promote the autonomous, free organization of their civil societies, providing them with adequate spaces and transparent conditions for their effective involvement in decision-making.

As discusssed in Section 3, inclusive, sustainable urban and territorial strategies are necessary to counterbalance increasing inequalities within countries, promote robust and well-balanced urban systems and enhance territorial cohesion. Several countries have developed national urban strategies. Many other central governments (or federated states in federal countries) are currently on course to establish urban strategies. Yet most countries around the world still do not have nor plan to have comprehensive urban policies at the national level. I-cities have often been

the 'Cinderella' of NUPs and strategies. This status quo is inadequate and ineffective in terms of promoting a more balanced approach to urban and territorial development. Multilevel governance mechanisms should guarantee the strong involvement of i-cities to enable ownership at all decisional levels, both in the definition and the implementation stages of consistent urban policies that endure across political cycles.

Widening inequality both between and within cities and territories could lead to serious social instability and environmental problems, to which the most disadvantaged cities will always be more exposed. The unrest that triggered the Arab Spring was sparked in a small Tunisian i-city. As the global debate around the SDGs has recently emphasized, inequality is one of the greatest emerging challenges of the 21st century. Urban and regional imbalances are a concrete expression of this trend. Several issues are spreading to i-cities, especially in developing countries. These include poverty, lack of affordable housing and opportunities, gender and minority discrimination, settlement and economic informality.

Environmental challenges also require mobilization of i-cities that, as the largest group of cities, could be decisive in the transition towards a more environmentally sustainable model and a lower carbon economy. I-cities can, thanks to proximity and more efficient urban management, generate urban structures and patterns of production and consumption that help reduce natural resources consumption and CO_2 emissions. This will help achieve the commitments made at the 21st Session of the Conference of the Parties (COP 21) in Paris, to 'hold the global average temperature to well below 2°C above pre-industrial levels and, if possible, limit the temperature rise of 1.5°C'.

Local authorities should take action and be given more opportunities and incentives to take the lead. The 'Right to the City' approach – as developed in the introduction and in the previous chapter on metropolitan areas – should be used by local authorities to guide local policies and transform i-cities into more inclusive, dynamic and liveable places.

It is hard to anticipate the future scenarios and opportunities for i-cities. Changing models of production, consumption, and market and social organization give reason for optimism. The advent of the 'third' industrial revolution, based on new digital technologies and in which agglomeration factors and economies of scale have a much lower importance, could diminish the 'tyranny' of mass production and reward economies and societies built on proximity rather than distance, and on human needs rather than mass consumption. The expansion of the service sector, including direct services to the consumer, and the growing integration of different stages of the product cycle (especially production, use and maintenance), are creating new market opportunities for certain functions that could either be better performed locally or traditionally carried out in a household environment (e.g. care of the elderly, early childhood care). The pace and scale of change gives rise to untold opportunities in our ever-transforming societies. I-cities could certainly reap the benefits of these changes – but they will have to be prepared for them.

Photo: Andrea Ciambra - Girona (Spain).

4.2
KEY MESSAGES

This section presents key messages for national governments, local authorities, communities and international institutions, building on this chapter's analyses and on the Cuenca Declaration for Habitat III on 'Intermediate Cities':

RECOGNIZE THE CRUCIAL ROLE OF INTERMEDIARY CITIES AS A MAJOR GROUP OF URBAN SETTLEMENTS, for the achievement of Agenda 2030 and the New Urban Agenda. I-cities with visionary local leaderships and adequate support are key levers of local development, local democracy, social cohesion and enhanced cooperation between and among territories, focusing on the four pillars of sustainable development (social, economic, environmental and cultural).

REDEFINE NATIONAL URBAN POLICIES TO SUPPORT INTERMEDIARY CITIES IN FOSTERING BALANCED AND INCLUSIVE URBAN AND TERRITORIAL DEVELOPMENT. As regional hubs and anchors of regional development, i-cities act to counterbalance the polarization of urban systems that is fuelling spatial inequalities and artificial rural-urban divides in many countries. Equitable and effective national urban policies should be developed to address multilevel governance mechanisms, based on regular dialogue and collaboration. National urban policies should be supported by transparent and reliable funding mechanisms, to avoid leaving any cities or territories behind. In this regard, national, regional and intermediate governments should guarantee the strong involvement of i-cities in the definition and implementation of their national urban policies.

UNLOCK INTERMEDIARY CITIES' POTENTIAL TO TAKE ON FULLY THEIR RESPONSIBILITY FOR URBAN MANAGEMENT AND DEVELOPMENT, THROUGH A FAIR DISTRIBUTION OF POWERS, FINANCES AND CAPACITIES. Adequate funding should be a priority, empowering local governments with new ways to 'square the circle' in order to manage sustainable development and fulfil their potential. This requires adequate human, financial and technological resources to make decisions that are closer to, and respond better to, the needs of local citizens and businesses. With clear mechanisms and legal frameworks, their human scale could be a lever for local participatory democracy with the effective involvement of local communities and public and private partners (business sector, civil society organizations, etc.) in local development strategies.

CAPITALIZE ON THE PROXIMITY AND HUMAN SCALE OF INTERMEDIARY CITIES BY STRENGTHENING URBAN PLANNING CAPACITIES AND LAND MANAGEMENT TO PREVENT URBAN SPRAWL AND REDUCE THE URBAN FOOTPRINT. This must be a priority in developing countries facing rapid urban growth in the coming decade, and a necessary action to avoid unplanned peri-urban growth and slum expansion, especially in risk-prone areas.

RAISE THE NATIONAL PROFILE OF INTERMEDIARY CITIES. I-cities should make themselves more visible by branding and promoting themselves as centres of innovation, intermediation, service provision, cultural heritage and prosperity, and should make clear to national governments that they are capable and ambitious.

FOSTER REGIONAL DEVELOPMENT BY ENCOURAGING CLOSER COOPERATION BETWEEN I-CITIES AND THEIR RURAL HINTERLANDS, AS WELL AS INTER-MUNICIPAL PARTNERSHIPS. This will create economies of scale for infrastructure and public services, strengthen the flow of goods and people within the region, and improve the management of natural resources. Floating populations, unequal distribution of resources and responsibilities within territories,

and administrative isolation are pressing issues that i-cities need to tackle, making themselves heard by national governments while bolstering territorial cooperation and collaboration. This also requires the creation of adequate legal frames and technical tools to pool urban and territorial planning strategies, capacities and resources.

DEVELOP AMBITIOUS LOCAL ECONOMIC POLICIES TO CREATE NEW OPPORTUNITIES AND OVERCOME NATIONAL AND GLOBAL ECONOMIC CHANGES. Innovative policies can boost i-cities' economies and regional dynamics through the mobilization of local capacities and assets, and the promotion of 'short circuits' to support local social and collaborative economies. I-cities can do this by embracing the Third Industrial Revolution to help firms achieve economies of scale and overcome problems of distance and enable greater personalization and localization of the production of a wide range of goods and services that are currently imported. I-cities and national governments should take advantage of emerging clusters, trans-border, and regional economic corridors to anchor the role of i-cities in national and global economies. New technology, smart development and interconnectedness are all part of the future of i-cities and have huge potential to make them valuable actors on the global stage, and essential cogs in more innovative and productive national economies.

TACKLE GROWING INEQUALITIES BY DEVELOPING SOCIAL POLICIES THAT ENSURE AFFORDABLE ACCESS TO BASIC SERVICES, HEALTH AND EDUCATION. I-cities, despite their limited resources, must deal with greater pressures on housing and land tenure to ensure gender equality, respond to the demands of ageing populations, and create favourable prospects and opportunities for youth. Adequate social policies could help strengthen intermediary cities as buffers in the management of migration. This should also include enhanced resources and capabilities for those endemic issues and structural problems that tend to affect poorer communities and less developed economies and to which i-cities can be much more vulnerable, e.g. malnutrition, epidemics, HIV, poverty and discrimination.

REDUCE THE URBAN ENVIRONMENTAL FOOTPRINT TO FIGHT ENVIRONMENTAL DEGRADATION, CLIMATE CHANGE, AND THE THREAT OF NATURAL DISASTERS. Constituting a major group of cities worldwide, but also with the comparative advantage of human scale and valuable proximity to their hinterland, i-cities should contribute to the transition from a fossil fuel to a green economy model. Many i-cities, however, still have scarce resources and limited capabilities to face increasingly frequent natural disasters and the effects of climate change. They should, therefore, cooperate to pool their resources and knowledge to make adaptation and mitigation strategies more accessible and applicable, and advocate for resilience strategies at the national and global level.

ENSURE ACCESS TO AND PARTICIPATION IN CULTURE AND CULTURAL LIFE FOR ALL. Culture is a vital element of citizenship, social integration and co-existence. I-cities should build on their local identities as well as their cultural and heritage potential to promote a sense of place and identity, belonging and creativity. Central governments should integrate the cultural dimension of their cities into their sustainable development plans.

ADOPT THE 'RIGHT TO THE CITY' approach to ensure respect for human rights at the local level, stressing the necessary links with social inclusion, gender equality, enhanced political participation, quality public spaces, inclusive economy, environmental sustainability and the protection of common goods, for current and future generations.

NOTES

1 Urban systems and systems of cities are very difficult to define. They are composed of trading and information networks that have developed among urban settlements over time. The internationalization of the global economy has created a network of cities that are inextricably woven together and thus interdependent. Urban systems tend to be open tend to be open, enabling exchanges with the environment as well as being open to change, including the introduction of technical or social innovations. They also overlap as part of interlocking networks (see, for instance, Bretagnolle, Daudé, and Pumain, *From Theory to Modelling*).
2 Giffinger et al., *European Smart Cities*, 16.
3 Rondinelli, *Secondary Cities in Developing Countries*.
4 Wood, *Intermediate Cities on a Resource Frontier*.
5 Bellet and Llop, *Ciudades intermedias*; Bolay and Rabinovich, *Intermediate Cities in Latin America Risk and Opportunities of Coherent Urban Development*; Gault, *Villes intermédiaires pour l'Europe?*
6 Angel et al., *Atlas of Urban Expansion*.
7 Parkinson et al., *Second Tier Cities in Europe: In an Age of Austerity Why Invest beyond the Capitals?*
8 Roberts, *Managing Systems of Secondary Cities*.
9 UCLG, *UCLG Frame Document for Intermediary Cities*. Other sources consider as 'intermediary' those cities with a population of between 100,000 and one million inhabitants (UN-Habitat, *An Urbanizing World*). The European Union defines intermediary cities as urban centres of between 20,000 and 500,000 inhabitants, while the World Bank (*World Development Report: Reshaping Economic Geography*, 2009) raises the threshold up to one million inhabitants. In South-eastern Asia, particularly in China, cities of between 100,000 and three million inhabitants are generally considered middle-sized cities. In Pakistan, on the other hand, the definition applies to cities of between 25,000 and 100,000 people. In the United States, cities are categorized as large, medium and small. 'Large' cities include those with a current non-farm employment base of at least 450,000 jobs. 'Mid-size' areas range from 150,000 to 450,000 jobs. 'Small' areas can have as many as 150,000 jobs. In Argentina, cities of between 50,000 and one million inhabitants are also considered intermediary cities.
10 Habitat III - Thematic Meeting, Cuenca Declaration for Habitat III on *Intermediate Cities: Urban Growth and Renewal*: '...the concept of 'intermediate cities' stems from their role as intermediaries within a territorial system, interacting with bigger cities, towns and other human settlements and more effectively articulating rural-urban linkages. Mindful of the differences of population size considered to define intermediate cities, which may vary in different regions, ranging from 20,000/50,000 inhabitants to 500,000 and up to one million in specific countries and regional contexts'. The full text of the Declaration is available on-line at this address: http://habitat3.cuenca.gob.ec/archivos/declaration/HIII-Declaration CuencaEN.pdf).
11 More information is available in the report's introduction.
12 A more detailed analysis is available in Section 2.1.
13 Based on the classic approach of Michel Porter (in *The Competitive Advantage of Nations*, 1998), industrial clusters and districts are defined as forms of territorial 'aggregation between companies operating in the same sector or branch and characterized by specific technical and social relationships among private and public actors. The cluster has a positive influence on: innovation and competitiveness, skill formation and information and growth and long-term business dynamics'.
14 Roberts, *Managing Systems of Secondary Cities*; Roberts and Hohmann, *Secondary Cities: Managing Urban Land Governance Systems*.
15 Rifkin, *The Third Industrial Revolution*.
16 Schwab, *The Fourth Industrial Revolution*.
17 UCLG, *UCLG Frame Document for Intermediary Cities*.
18 See Mercer's Quality of Living Ranking (top 100), Monoce Quality of Life, Numbeo Top 100, Eius Liveability Ranking, Innovation Cities Index (2014), EIU City Hot Spots, UN-Habitat City Prosperity Index, Econominst Intelligence Unit Liveability Index, A.T. Kearney Global Cities Index, Global Financial Centers Index.
19 European Commission, *Quality of Life in Cities*.
20 Top 100, Innovation Cities Index 2015, http://www.innovation-cities.com/innovation-cities-index-2015-global/9609.
21 Johnston and Bate, *The Power of Strategy Innovation*, 136.
22 *The Human Scale - Official Trailer*.
23 Institut d'Aménagement et d'Urbanisme de la Région d'Ile-de-France, *La Stratégie d'aménagement et de développement économique de la Randstad-Hollande*.
24 See McGranahan and Satterthwaite, *Urbanisation*.
25 Tacoli, McGranahan, and Satterthwaite, *Urbanisation, Rural-Urban Migration and Urban Poverty*, 8.
26 Battistella and Conaco, *The Impact of Labour Migration on the Children Left Behind*; Biao, *How Far Are the Left-behind Left Behind?*
27 Li and An, *Migration and Small Towns in China*.
28 UN-Habitat, *The State of European Cities in Transition 2013: Taking stock after 20 years of reform*, 62.
29 Angel, *Planet of Cities*.
30 ESPON, *Territories Finding a New Momentum*.
31 Roberts, *Gestionando Sistemas de Ciudades Secundarias*.
32 Ashton-Wyatt, *Cities beyond Perth. Best Bets for Growth in a New Economic Environment*.
33 Haughton and Hunter, *Sustainable Cities*, 70; Meligrana, *Redrawing Local Government Boundaries*.
34 New Geography, *Best Cities 2015*.
35 ESPON, *Second-Tier Cities and Territorial Development in Europe: Performance, Policies and Prospects*.
36 Bolay and Rabinovich, *Intermediate Cities in Latin America Risk and Opportunities of Coherent Urban Development*.
37 John, *Secondary Cities in South Africa: The Start of a Conversation*.
38 UN-Habitat and CAF, *Construction of More Equitable Cities*.
39 Council of Europe, *European Charter of Local Self-Government*
40 UCLG, *Decentralization and Local Democracy in the World*; UCLG, *Local Government Finance*. CEMR, *Decentralisation at a crossroads: territorial reforms in Europe in times of crisis*
41 Bachtler and McMaster, *EU Cohesion Policy and the Role of the Regions*.
42 In the Middle Eastern and Western Asian region, devolution to local government is only part of the constitutions of Lebanon, Syria, Iran and Turkey. See: UCLG, *Decentralization and Local Democracy in the World*, 207.
43 Cities Alliance and UCLG Africa, *Assessing the Institutional Environment of Local Governments in Africa*.
44 The opposition of a number of Pennsylvania's i-cities and small cities to fracking explorations and drilling on their territories – in spite of significant consensus and economic interest at higher levels of government – was one of the most visible recent cases in this regard.

[45] Abers, *Learning Democratic Practice: Distributing Government Resources Through Popular Participation in Porto Alegre, Brazil*; Gret and Sintomer, *Porto Alegre*; Schneider and Baquero, *Get What You Want, Give What You Can*; UCLG, *Basic Services for All in an Urbanizing World*.

[46] Certain intermediary cities in Africa, for instance, spent less than USD 1 per capita overall per year (for more details, see AfDB, OECD, and UNDP, *African Economic Outlook 2015*, 171).

[47] Joshi, Prichard and Heady, *Taxing the Informal Economy.*

[48] In Dakar, Senegal for example, the vast majority of informal settlement dwellers are still without a land title despite a national tenure regularization programme that was launched in 1987. Similar delays in the titling process have been observed in Accra (Ghana), Tanzania and Indonesia (see Payne, Durand-Lasserve, and Rakodi, *The Limits of Land Titling and Home Ownership*).

[49] While in countries such as Germany or Sweden many 'free' local services are financed by local taxes, Anglo-Saxon countries such as the United Kingdom or Canada tend to rely more heavily on the 'user-pays' principle. Furthermore, many i-cities have outsourced certain services, such as water, electricity or public transportation to external service providers, which become the beneficiaries of the fees and charges paid by service users and consumers of the services.

[50] Kaganova, *Guidebook on Capital Investment Planning for Local Governments*; Lall, *Planning, Connecting, and Financing Cities-Now*.

[51] De Mello, *Fiscal Responsibility Legislation and Fiscal Adjustment: The Case of Brazilian Local Governments*.

[52] Smoke, *Metropolitan Cities in the National Fiscal and Institutional Structure*.

[53] Ibid.

[54] UCLG, *Basic Services for All in an Urbanizing World*.

[55] Murray Jamer, Deputy CAO, City of Fredericton, Canada (2015)

[56] UN-Habitat, Urbanization and Development, Emerging Futures, calculated from Statistical Annex, Table E2. For more information on access to basic services, see Chapter 1 and UCLG ed., *Basic Services for All in an Urbanizing World*.

[57] Arnett, *London Gets 24 Times as Much Spent on Infrastructure per Resident than North-East England*; Mahadevia, *Inter-City and Intra-City Inequity in Infrastructure Development in Urban China*; Henckel and McKibbin, *The Economics of Infrastructure in a Globalized World*.

[58] Okeke, *Towards a New Growth Path in Africa: A Study of National Urban Policy Responses to Urbanization.*

[59] AfDB, OECD, and UNDP, *African Economic Outlook 2015*; UCLG, *Basic Services for All in an Urbanizing World*.

[60] Habitat III Regional Meeting, *Africa's Priorities for the New Urban Agenda*, Abuja, 24-26 February 2016, https://www.habitat3.org/bitcache/fa44aa3e9fa42963d526e8f88585c5c03849bef2?vid=574438&disposition=inline&op=view

[61] For a review of different approaches and experiences from the local government perspective, see also UCLG, *Basic Services for All in an Urbanizing World*.

[62] Orozco, *Remittances in Latin America and the Caribbean*; Orozco and Rouse, *Migrant Hometown Associations and Opportunities for Development*; Roberts, *Managing Systems of Secondary Cities*; Roberts and Hohmann, *Secondary Cities: Managing Urban Land Governance Systems*. Of all Philippine remitters working in Hong Kong, 63% contribute to migrant hometown associations (HTAs), as do 88% of all Indonesian remitters working in Malaysia (see Orozco and Rouse, *Migrant Hometown Associations and Opportunities for Development*). Considering that in such partnerships the focus of interest lies in the welfare of the community – by improving the provision of public goods and services such as clinics, classrooms or parks – rather than in making a profit, it should be easier for intermediary cities and their partners to identify suitable projects. In Mexico for example, 80% of HTA's coordinate their activities with municipal leaders.

[63] UCLG, *Basic Services for All in an Urbanizing World*, 211.

[64] Among them, Paris and Aix-Marseille enjoy a special status. The framework's criteria, for instance, define metropolis as any urban area of at least 400,000 inhabitants, located in a larger agglomeration of at least 650,000 inhabitants. Many French cities, therefore, have been granted the status of metropolis – Lille, Bordeaux, Nice, Nantes, Rennes, Grenoble, Brest, Strasbourg, Rouen, Montpellier and Toulouse – even though almost none of their metropolitan areas even reaches one million inhabitants. France's and the EPCI's definition of 'metropolis' challenges the conventional focus on the statistical datum, and rewards the ability of certain local governments – a number of i-cities among them –to create opportunities for their citizenship. The delegation of one key traditional competence of *Intercommunalités* - water and sanitation - from municipalities to such entities will become mandatory from January 1, 2020.

[65] UCLG, *Basic Services for All in an Urbanizing World*.

[66] UN-Habitat, *Planning Sustainable Cities*.

[67] Whereas in 2009 Europe had over 160 schools offering certified studies in urban and regional planning – compared to the United States' 88 and China's 97 – the whole of the African continent offered only 69 such centres, 39 of them in Nigeria. Ghana and the Philippines rely on just one planning school each (see Ibid).

[68] UN-Habitat approaches the category of spatial management plans through such concepts as a master plan, comprehensive plan, comprehensive city plan, general plan, layout plan or local plan, destination plan or building plan, strategic spatial plan, directive or development plan, land-use zoning, regulatory planning (see Ibid., 11).

[69] Ibid., 57.

[70] UN-Habitat, *Planning Sustainable Cities*. More information about the city development strategy from local governments' perspective is available in UCLG, *Policy Paper on Urban Strategic Planning: Local Leaders Preparing for the Future of Our Cities.*

[71] The Centro Iberoamericano de Desarrollo Estratégico Urbano (CIDEU) is a network of 121 Latin American cities and a number of different institutional members, established to promote the growth and socio-economic development of its members. More information is available on the network's website: http://www.cideu.org/index.php.

[72] UCLG, *Policy Paper on Urban Strategic Planning: Local Leaders Preparing for the Future of Our Cities.*

[73] More information is available online at: http://www.iadb.org/es/temas/ciudades-emergentes-y-sostenibles/ciudades-usando-el-enfoque-de-desarrollo-urbano-sostenible,6693.html#ciudades1

[74] UCLG, *Technical Exchange between Peers Decentralized Cooperation Brazil and Mozambique*.

[75] UN-Habitat, *Planning Sustainable Cities*.

[76] Source: Josep Maria Llop, UNESCO-CIMES. http://www.ceut.udl.cat/en/ciutats-mitjanes-i-intermedies/el-programa-uia-cimes/

[77] A city's compactness measures the physical relationship between the habitable volume built over time by the populace and the area of land used to make it possible. Compactness is an urban parameter that links together key indicators of sustainability such as 'density', 'urban footprint', as well as the scale of 'proximity' and 'cohesion'. An intermediary city of about 140,000 inhabitants usually contains approximately 70% of its population within a 2.5km radius, a range that generally favours pedestrian mobility and fosters citizen ownership of public spaces. In a city with a population between 140,000 and 390,000 inhabitants this circle expands to a 3.7km radius. The same radius can grow up to 8km in a city of 700,000 inhabitants and up to 10km as it nears one million inhabitants, when it takes on the features of a metropolitan agglomeration (see Bellet and Llop, *Ciudades intermedias*). This range also defines a territory's symbolic and functional core, making the services and the labour market offered by the city, as well as its unique cultural endowment, more or less accessible for its citizens and its hinterland (see also OECD, *Compact City Policies*, 83; Llop and Usón i Guardiola, *Ciudades intermedias*, 16).

[78] Banco Interamericano de Desarrollo, Cuenca. *Ciudad Sostenible,* 16.

[79] See also Nicolò and Bendech, *Street Food Vending in West African Cities: Potential and Challenges*.
[80] UCLG, *Planning and Management of Sustainable Urban Development of Intermediary Cities*, 7.
[81] Kewalramani, *India's Urban System and the Intermediate City*.
[82] UNECE et al., *Towards a City-Focused, People-Centred and Integrated Approach to the New Urban Agenda*, 9.
[83] For an approach to social housing in China see International Bank for Reconstruction and Development, World Bank, and Development Research Centre of the State Council, *Urban China*, 22.
[84] Ibid., 10; López Moreno and González Blanco, *Ghost Cities and Empty Houses: Wasted Prosperity*.
[85] More information on TECHO's initiative to map Chilean informal settlements is available online at http://chile.techo.org/cis/monitor/.
[86] Source: Regina Gregory, *Germany - Freiburg - Green City*, *The Eco Tipping Points Project*, more information at: http://www.ecotippingpoints.org/our-stories/indepth/germany-freiburg-sustainability-transportation-energy-green-economy.html
[87] See UNISDR, *Christchurch Re-Born after Five Years*: 'Over the last five years, 1,200 major buildings have been demolished and 68,000 homes have been repaired. It should be noted that the pace of the work was helped by the fact that 98% of people were insured. The Stronger Christchurch Infrastructure Rebuild Team (SCIRT) has completed 86% of horizontal infrastructure repairs including roads, storm water drains, drinking water and sewerage pipes'. Available online at this address: http://www.unisdr.org/archive/48110. The main reason Christchurch was able to respond so quickly was because of the establishment of the Earthquake Commission (EQC) in 1945 which had more than 5.3 billion NZ dollars in funds invested to be used to fund the recovery of this type of disaster. The New Zealand government was able to immediately release 10,000 NZ dollars to each household within days to support the recovery effort and the long-term reconstruction programme.
[88] Vu Kim Chi et al., *Coastal Urban Climate Resilience Planning in Quy Nhon, Vietnam*.
[89] Pauleit et al., *Urban Vulnerability and Climate Change in Africa*.
[90] D'Amico et al., *Evolution of the Cluster Approach to the EMAS Regulation in Italy*. The EMAS II Regulation (Eco-Management and Audit Scheme, EC Regn.761/2001) highlights the role of local authorities and intermediaries (Art. 11), which is further developed in the newer 2009 regulation (EMAS III) supporting SMEs. The regulation requires an initial environmental review of the entire region as a first step to register and to take a strategic coordinating role together with other actors in the cluster. This allows small businesses to achieve goals that they could not achieve individually, in particular through the provision of resources that are common to the whole cluster.
[91] See Choe and Laquian, *City Cluster Development*; Choe and Roberts, *Competitive Cities in the 21st Century*. The authors examine a number of examples (e.g. the knitwear industry cluster in Tiruppur, India, or the multi-industry clusters in Chiang Mai Thailand, or the education cluster in Sleman Indonesia).
[92] See Chapter 1, Section 4.1.1. 'The circular economy involves the distinct and careful management of two different types of materials within a closed-loop economy: materials of biological origin which can return to the biosphere as feedstock (biological nutrients, e.g. forest products) and technical materials which cannot biodegrade and enter the biosphere (technological nutrients, e.g. plastics and metals)', in Rizos et al., *The Circular Economy Barriers and Opportunities for SMEs*, 1.
[93] Roberts, *The Application of Industrial Ecology Principles and Planning Guidelines for the Development of Eco-Industrial Parks*.
[94] Jacobsen, *Industrial Symbiosis in Kalundborg, Denmark*.
[95] See also Journal Resolix, *Systèmes alimentaires territorialisés au Québec*, Février 2016; Carcenac, P., *Comment la ville d'Albi veut conquérir son autosuffisance alimentaire*, LeFigaro online edition, April 14, 2016, available on-line at this address: http://www.lefigaro.fr/actualite-france/2016/04/14/01016-20160414ARTFIG00180-comment-la-ville-d-albi-veut-conquerir-son-autosuffisance-alimentaire.php. See finally, 'Shop Local' movements in many countries, and Warhurst, P., *Incredible Edible*, available on-line at this address: http://www.incredible-edible-todmorden.co.uk/home. Many American cities are also engaged in Shop Local movements, but with different political aims.
[96] UCLG, *Urban-Rural Policies for the Promotion of Decent Work in Intermediary Cities*.
[97] See Pasto's *Plan for Territorial Planning 2015-2027: a Territory with a Logic* (also Ibid., 24).
[98] Juliá Igual and Meliá Martí, *Social Economy and the Cooperative Movement in Europe: Contributions to a New Vision of Agriculture and Rural Development in the Europe of The 27*.
[99] UCLG, *UCLG Frame Document for Intermediary Cities*.
[100] Tacoli, McGranahan, and Satterthwaite, *Urbanisation, Rural-Urban Migration and Urban Poverty*.
[101] OECD, *Rural-Urban Partnerships*.
[102] Ibid.
[103] See World Tourism Organization (UNWTO), *Global Report on City Tourism - Cities 2012 Project*. Moreover, according to Tourism Towards 2030, UNWTO's recently updated long-term outlook and assessment of future tourism trends, the number of international tourist arrivals worldwide is expected to increase on average by 3.3% each year between 2010 and 2030. This represents some 43 million more international tourist arrivals every year, reaching a total of 1.8 billion arrivals by 2030.
[104] Okech, *Socio-cultural Impacts of Tourism on World Heritage Sites*.
[105] See the International Association of Science Parks and Areas of Innovation's (IASP) statistics (2016) at this address: http://www.iasp.ws/statistics.
[106] UCLG Committee of Digital and Knowledge-Based Cities and Municipality of Bilbao, *Smart Cities Study*.
[107] UCLG Committee of Digital and Knowledge-Based Cities and Municipality of Bilbao. More information on the Committee's activities is available online at: http://www.uclg-digitalcities.org/
[108] A list of Indian cities that stand out in terms of their progress in technological development and knowledge-based implementation is available at this address: http://smartcities.gov.in/winningCityp1.htm.
[109] Nyangoro and Lubaale, *Informal Economy Monitoring Study*.
[110] *UN-Habitat, Gender mainstreaming in local authorities. Best practices, p.27*
[111] UCLG, *Basic Services for All in an Urbanizing World*, 211–12.
[112] McGranahan and Satterthwaite, *Urbanisation*.
[113] See International Cooperative Alliance, available on-line at this address: http://ica.coop/es/media/news/contra-el-viento-y-las-mareas-las-cooperativas-de-mujeres-de-palestina.
[114] See, in this regard, data available at UNESCO: http://www.unesco.org/most/easteur2.htm.
[115] Venables, *New Economic Geography*; World Bank, *World Development Report: Reshaping Economic Geography*.
[116] Christaller, *How I Discovered the Theory of Central Places: A Report about the Origin of Central Places*.
[117] A monocentric system of cities is one where more than one-third of the nation's urban population live in the primate city. Bicentric are where more than one-third of the nation's urban population live in the two largest cities and polycentric is if more than one-third of the nation's urban population live in the two or three largest cities.
[118] AfDB, UNDP, and OECD, *African Economic Outlook 2016*, 156.
[119] Benner, *Cluster Policy as a Development Strategy. Case Studies from the Middle East and North Africa*.

[120] More information available online at: http://africanbusinessmagazine.com/region/west-africa/roll-first-made-nigeria-cars/.
[121] SWECO and NCG, *Review of the Implementation of the Trans African Highways and Missing Links*.
[122] Source: http://www.uemoa.int/
[123] Almost 70% of the 10 million urban dwellers that arrive in a Sub-Saharan city every year will only have access to informal settlements, and just 20% will have an opportunity to upgrade their living (see UN-Habitat, *Issue Paper on Informal Settlements*, 4).
[124] Turok and Parnell, *Reshaping Cities, Rebuilding Nations*; Okeke, *Towards a New Growth Path in Africa: A Study of National Urban Policy Responses to Urbanization*; Geyer, *International Handbook of Urban Policy. Issues in the Developing World*
[125] See also AfDB, OECD, and UNDP, *African Economic Outlook 2015*, 171, and AfDB, UNDP, and OECD, *African Economic Outlook 2016*, 148.
[126] The document is available online at this address: http://www.au.int/en/treaties/african-charter-values-and-principles-decentralisation-local-governance-and-local.
[127] African Union Commission, *Agenda 2063. The Africa We Want*, 10.
[128] Ibid., 2.
[129] South African Network of Cities (SACN), *Outside the core*.
[130] Federal Ministry of Works and Housing, *National Urban Development Policy for Nigeria*.
[131] UCLG, *Public Space as a Generator of Growth in African Cities*.
[132] A recent study (Brar et al., *India's Economic Geography in 2025*), stresses that India's semi-urban and urban districts are expected to overtake rural districts by 2025. Based on a 'granular' analysis, the document shows that in 2012 India included 153 rural districts, 219 'in-transition' districts, 84 semi-urban districts and 33 urban districts. Forecasts to 2025 show, on the other hand, 96 rural districts, 220 in–transition districts, 115 semi-urban districts and 58 urban districts. 'Urban districts' are defined as districts with a level of urbanization of 60% or higher, while semi-urban ones are those where between 35% and 60% of the population live in urban areas. According to the report, there is an 'inflection point' once the districts' urbanization levels reach 35% or more, when the average GDP per capita increases significantly due to a sharp fall in the agricultural share of GDP.
[133] Ibid., 39.
[134] Choe and Laquian, *City Cluster Development*.
[135] Brar et al., *India's Economic Geography in 2025*, 443–45.
[136] More information available at this address: http://www.dmicdc.com/.
[137] OECD, *OECD Urban Policy Reviews*.
[138] Ministry of Urban Employment and Poverty Alleviation and Ministry of Urban Development, *Jawaharlal Nehru National Urban Renewal Mission*; UN-Habitat and Cities Alliance, *The Evolution of National Urban Policies*, 47.
[139] More detail on the Smart City features: http://smartcities.gov.in/writereaddata/Smart%20City%20Features.pdf.
[140] The *National Socio-Economic Plan* and the 2008 *National Spatial Plan* put forward an agenda for the next 20 years. The national urban policy framework is further defined in the *National Policies and Strategies for Urban Development towards Sustainable and Competitive Cities for 2045* (KSNPP) document, released in 2015.
[141] The *National Urban Development and Housing Framework* (NUDHF) for 2009-2016 is the comprehensive plan, and is accompanied by different national development plans. The NUDHF 2009-2016 includes five main goals: 1) urban competitiveness; 2) poverty reduction; 3) affordable housing; 4) sustainable communities through market-based incentives; and 5) stronger local finances (see Ali and Dodson, *National Urban Policy. Asia and Pacific Region)*.
[142] Ibid.
[143] OECD, *OECD Urban Policy Reviews Korea*.
[144] Urban planning and management have become an important part of Vietnam's economic platform (*Socio-Economic Development Strategy 2011-2020*). The *National Urban Upgrading Strategy and Overall Investments Plan* (NUUP, approved in 2009) and the *National Urban Development Policy* (NUDP) for the period 2012-2020 have been the guiding policy blueprints for national urban development (see Ali and Dodson, *National Urban Policy. Asia and Pacific Region*, 81–83).
[145] Malaysia released its NUP in 2006, as part of the 8th Malaysian Plan 'to create a visionary city with a peaceful community and living environment through sustainable urban development', complemented by the national development plan, the *National Physical Plan*, as well as by the *National Land-Use Policy* (see 'Ibid', 123–26).
[146] Ibid., 104.
[147] Ibid., 24–26.
[148] Hildebrand, Kanaley, and Roberts, *Sustainable and Inclusive Urbanization in Asia Pacific*.
[149] Roberts, Lindfield, and Steinberg, *Shaping the Future through an Asia-Pacific Partnership for Urbanization and Sustainable City Development*.
[150] These territories include Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan (Central Asia), Armenia, Azerbaijan and Georgia (Caucasus), and Belarus, the Russian Federation and Ukraine (Eastern Europe).
[151] The Soviet Union also included Estonia, Latvia, Lithuania and Moldovia.
[152] CER, UN-ESCAP, and UNDP, *Urbanization in Central Asia: Challenges, Issues and Prospects*, 26.
[153] UNECE et al., *Towards a City-Focused, People-Centred and Integrated Approach to the New Urban Agenda*, 24.
[154] CER, UN-ESCAP, and UNDP, *Urbanization in Central Asia: Challenges, Issues and Prospects*.
[155] This section is based on the following reports, UNECE et al., *Towards a City-Focused, People-Centred and Integrated Approach to the New Urban Agenda*; CER, UN-ESCAP, and UNDP, *Urbanization in Central Asia: Challenges, Issues and Prospects*.
[156] UNECE et al., *Towards a City-Focused, People-Centred and Integrated Approach to the New Urban Agenda*.
[157] Ibid., 11–12.
[158] Ibid., 12–13.
[159] CER, UN-ESCAP, and UNDP, *Urbanization in Central Asia: Challenges, Issues and Prospects*.
[160] UNECE et al., *Towards a City-Focused, People-Centred and Integrated Approach to the New Urban Agenda*, 12–13.
[161] CER, UN-ESCAP, and UNDP, *Urbanization in Central Asia: Challenges, Issues and Prospects*.
[162] ESPON and University of Geneva, *European Perspective on Specific Types of Territories*. ESPON recognize three groups of countries: 1) Countries with a balanced distribution of population between high-density urban clusters and small and medium-sized towns (Austria, Bulgaria, the Czech Republic, Denmark, Estonia, Finland, Italy, Latvia, Poland, Portugal, Romania, Sweden and Slovenia); 2) Countries with an overrepresentation of population living in smaller settlements (France, Hungary, Ireland, Lithuania, Luxembourg, Norway and Slovakia); 3) Countries in the central part of Europe, with high-density urban clusters as well as a large number of small and medium-sized towns, stretching from the south of England across the Benelux countries and west of Germany to north and north-east Italy. (ESPON – Towns and Territorial Cooperation May 2015)
[163] Ibid., 3.
[164] ESPON, *Territories Finding a New Momentum*, 8.

[165] Ibid., 41.
[166] Key official documents on the programme's renovation and expansion are available online at this address: http://ec.europa.eu/transport/themes/infrastructure/ten-t-guidelines/index_en.htm.
[167] The new budget for the TEN-T programme amounts to over 24 billion euros up to 2020, together with additional funding from the European Investment Bank and involved EU agencies.
[168] European Commission, *Core Network Corridors. Progress Report of the European Coordinators*.
[169] ETC Transport Consultants, *Transport Market Study for the Scandinavian Mediterranean RFC*.
[170] European Commission, *Core Network Corridors. Progress Report of the European Coordinators*.
[171] European Commission, *Communication to the European Parliament and the Council of the EU on the Urban Dimensions of EU Policies – Key Features of an EU Urban Agenda*.
[172] The case of Ireland's National Spatial Strategy is telling of the (horizontally and vertically) cross-cutting nature of urban policy, its challenges and the solutions it demands. The plan had to devise specific measures to foster urban sustainability and infrastructural interconnectedness throughout the Irish island, irrespective of the border with Northern Ireland (part of the United Kingdom), thereby promoting joint cross-border initiatives for territorial development.
[173] ESPON, *Second-Tier Cities and Territorial Development in Europe: Performance, Policies and Prospects*.
[174] Inteli, *Creative-Based Strategies in Small and Medium-Sized Cities: Guidelines for Local Authorities*.
[175] France hosts the largest number of municipalities (36,682) in Europe.
[176] Key actors, whose presence in the decision-making process has been enhanced include, among others, the General Commission for Regional Equality (CGET); the National Observatory of the Urban Policy (*Observatoire national de la politique de la ville*); the National Agency for Urban Renewal (ANRU); the National Council of Cities (*Conseil national des villes*); and the association of local government members *France Urbaine*, a merging of existing mayoral and local representative associations.
[177] The reform was enacted against the backdrop of France's long-established and effective frame for inter-municipal cooperation (almost all of France's municipalities are part of an *Intercommunalité*) and sought more proactive grassroots participation through the promotion of *Conseils Citoyens*, citizenship councils, to make the decision-making process more transparent.
[178] The relationship between urban agglomerations and governance levels is so apparent that the smallest *Länder* – Berlin, Bremen and Hamburg – are generally considered city-states, as they barely extend beyond city limits.
[179] UN-Habitat, *State of the World's Cities 2012-2013*.
[180] Altenburg and Meyer-Stamer, *How to Promote Clusters*.
[181] Bolivia is currently going through the accession process, whilst the remaining South American countries are officially Mercosur-associated countries. Mexico and New Zealand have an observatory status within the organization.
[182] Source: http://www.mercosur.int/
[183] Sources: CONPES 3819, *Política Nacional para Consolidar el Sistema de Ciudades en Colombia, Departamento nacional de planeación,* 2014 and Misión Sistema de Ciudades, *Una política nacional para el sistema de ciudades colombiano con visión a largo plazo*.
[184] More information on this body is available online at this address: http://www.fccrmercosur.org/.
[185] UN-Habitat, *The State of Arab Cities 2012*, 139.
[186] Ibid., 172.
[187] Madbouly, *Revisiting Urban Planning in the Middle East North Africa Region*.
[188] Data in this section obtained from the United Nations' country profiles at UNData: http://data.un.org/Default.aspx.
[189] UN-Habitat, *Issue Paper on Informal Settlements*, 24.
[190] Yousef, *Development, Growth and Policy Reform in the Middle East and North Africa since 1950*.
[191] UN-Habitat, *State of the World's Cities 2008/2009 – Harmonious Cities*.
[192] Florida, *2013's Best-Performing American Cities*.
[193] *OECD, Trends in Urbanisation and Urban Policies in OECD Countries;* Sapotichne, *The Evolution of National Urban Policy: Congressional Agendas, Presidential Power, and Public Opinion*.
[194] Florida, *2013's Best-Performing American Cities*.
[195] Pendall and Carruthers, *Does Density Exacerbate Income Segregation?*. Recent economic forces and pressures, especially in the aftermath of the global financial crisis, have catalyzed this kind of process, shifting the paradigm of urban poverty in the United States from deprivation in inner urban areas to a kind of 'suburban poverty' that upsets and reverts the idea of affluence that was traditionally linked to isolation in sprawled urban expansions (see UNECE et al., *Towards a City-Focused, People-Centred and Integrated Approach to the New Urban Agenda*, 22).
[196] Resnik, *Urban Sprawl, Smart Growth, and Deliberative Democracy*.
[197] Singh, Pathirana, and Shi, *Assessing Coastal Vulnerability*; Gao, *Regional Industrial Growth*; Kotkin and Schill, *A Map Of America's Future*; AfDB, OECD, and UNDP, *African Economic Outlook 2015*.
[198] See also the periodical OECD publication series: *OECD Territorial Reviews*. A full archive is available online: http://www.oecd-ilibrary.org/urban-rural-and-regional-development/oecd-territorial-reviews_19900759.
[199] UN-Habitat, *Contribution of UN-Habitat to the Post-2015 Development Agenda*. In a meeting organized by UN-Habitat on 'the role of intermediate cities in strengthening rural-urban linkages towards the New Urban Agenda' in Montería (Colombia), on 27 – 28 October 2015, a group of experts added to the UN-Habitat resolution, the need to promote multi-sectorial and multilevel approaches to strengthen the governance of small and intermediary cities; promote strong leadership and long-term visions and plans for cities and regions; and improve information and knowledge exchanges – and the role of ITCs, data collection, and the debate on food security issues. See UN-Habitat, *Communiqué on the Role of Intermediary Cities*.
[200] UN-Habitat, *Cuenca Declaration for Habitat III*.
[201] 'The spatial reorganization phenomena just described do not differ in nature from those that took place in the U.S. already in the second half of the 20th century and led the economic profession to develop concepts such as spatial equilibrium and agglomeration economies to explain urban growth and decline in the American continent' (Leanza and Carbonaro, *Socially Inclusive Urban Transformation after the Great Recession, Towards a New Civic Economy Model*). For a recent summary of the American debate on this issue see also Glaeser, *Cities, Agglomeration, and Spatial Equilibrium*.