



The future of cities: what is the global agenda?

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I. Introduction: the future of cities - a growing agenda

The last five years has seen a substantial surge in attention on how cities need to be prepared for the future. Across the world, policymakers and businesses are considering and strategising both for the future of individual cities, and for the future of national, or even international, systems of cities.

The 'Future of Cities' agenda is distinct from the pre-occupation with 'Future Cities' which tends to focus on the social and environmental dividends of utilising digital infrastructure and systems in city management (a prognostic agenda). Considerations around the 'Future of Cities', by contrast, are more investigative and diagnostic, exploring alternative future drivers and scenarios. They take much more seriously the spatial, governance, and infrastructure challenges of a global economy and society which is becoming more decisively urban.

Why the future of cities?

In addition to the sheer scale and speed of the current phase of global urbanisation, there are several reasons why the future of cities has been a growing agenda since the global financial crisis.

- First, policymakers, at multiple levels and scales, have recognised that cities will host the vast majority of future population and economic growth. Therefore cities need to be optimised and configured to achieve improved liveability and inclusion, positive productivity and competitiveness outcomes, if nations as a whole are to prosper from the shift to a dominant urban mode. Unlocking the promise of urbanisation is an important quest.
- Second, the specific risks and imperatives concerning carbon emissions, climate change, natural disasters and resource shortages are becoming much more clear, especially at the city level. City and national governments are now under pressure to provide a vision of genuine sustainability and capacity to resist and recover from shocks associated with the natural environment (resilience).
- Third, there is now a widely understood historical record about the successes and failures of the last 150 years of urbanisation, especially in Europe and North America. This has raised awareness about the risks of regional economies entering negative path dependency, becoming too narrowly specialised, having unsuitable governance arrangements, or experiencing lock in due to unfavourable spatial patterns and transport development choices.
- Fourth, public bodies have grasped that there is a generational shift taking place in terms of the diminishing availability of national and state/provincial/regional government transfers for urban infrastructure and development. Given the high and often unfeasible costs of large-scale reconstruction, growing cities are now seeking to make the case for investment and fiscal decentralisation, to avoid costly mistakes of the past, and achieve a resilient and adaptable urbanisation based on 21st century design and 'life cycle finance' principles.

Who is thinking about the future of cities?

Policymakers at the city and metropolitan level have always been concerned with the futures of their own cities, focusing on actively shaping and managing urban areas to achieve positive productivity, liveability, and sustainability outcomes. However over the last decade *national* governments have also shown an increasing propensity to consider, strategise and plan for the future of cities. Some examples of this new focus include Brazil, which was an early leader, creating a Ministry of Cities in 2003. In 2004 the Indian government followed suit, launching an independent Ministry for Urban Development. In 2011, the UK government created a new role of Minister of Cities, charged with considering the impact of policies on Britain's urban areas. There have since been calls for similar posts to be created in other higher income nations such as the USA, Canada and Australia.¹

This trend reflects a growing realisation that policymakers need not just plan for the future of individual cities, but also for national *systems of cities*. Increasingly it is seen as national governments' role to try to actively support the whole national system of cities with effective system level policies in areas such as connectivity, regulatory, institutional and fiscal frameworks. As economies develop, national governments are also expected to pay attention to knowledge production and complementary 'eco-systems', asset endowments and specialisations.²

Global institutions at the supranational and continental regional level have joined national and local governments in thinking about the future of cities. Their focus is partly driven by the sheer rate of global urbanisation, and the inescapable fact that the proportion of people living in cities, already a global majority, is only set to grow even larger in future. As such they appreciate that the future of humanity is inextricably linked to the future of cities. However the engagement of global institutions with future of cities agenda is also partly driven by the recognition that cities have the ability (some even argue a superior ability to nation states³) to make real impacts in tackling some of the world's most pressing international problems, perhaps most notably climate change and human settlement/mobility issues, but also other trans-border issues such as terrorism, drugs, economic inequality and epidemic disease. By helping to shape the future of cities, supranational institutions can make progress on these global agendas.

Representatives from wider sectors, including academia, private corporations, research foundations, philanthropies and citizen groups, have also begun to focus their attention on considering the future of cities. In many cases, these different groups are collaborating with each other and with government, on their research, strategies, and activities.⁴

Where is thinking about the future of cities taking place?

The Future of Cities is an agenda which unites policymakers and wider interest groups in cities, large and small, in both higher income nations and in the developing world. Although cities share characteristics and many common challenges – from tackling

¹ www.theglobeandmail.com/globe-debate/its-an-urban-century-canada-needs-a-department-of-cities/article8341193/http://www.thefifthestate.com.au/archives/54300/

² Clark and Clark (2014) *Nations and the Wealth of Cities: A New Phase of Urban Policy* (Centre for London)

³ See for example Barber (2013) *If Mayors Ruled the World needs a complete reference*

⁴ Moir, Moonen and Clark (2014) *Future Cities: Origins, Meanings and Uses* available at: www.gov.uk/government/collections/future-of-cities

climate change to nurturing economic growth – the different geo-political and institutional contexts within which cities exist mean that their prospective futures are extremely diverse.

One key differential is the fact that in the developing world, where over 90% of urban growth is occurring, cities are absorbing close to 70 million new residents each year. This scale and speed of growth presents immediate and obvious challenges.⁵ In contrast, urban growth in higher income nations has largely levelled off, and in some cases urban populations are even declining, bringing different challenges. Other economically developed cities are enjoying a degree of re-urbanisation, in which the 20th century trend of suburbanisation is reversed to create denser city cores and new ways of living and working. Indeed, in some developed countries a clearer continuous cycle of urbanisation, suburbanisation, metropolitanisation, and re-urbanisation is becoming visible.

Growth rates are just one of many contextual differences between cities. City diversity means that there is no 'one' future of cities or model pathway to follow: those concerned with the future of a given city or system of cities have to forge their own paths and do their own future thinking. Networks and transnational organisations allow for sharing of ideas, but cities must develop bespoke future strategies based on their own contexts and challenges. Across the world, many cities are doing just that.

Purpose, methodology and scope

How the world thinks about the future of cities is the key focus of this paper. The paper was originally drafted as a review note for the UK Government Office for Science Future of Cities Foresight Project. It has subsequently been revised and extended. The paper has been compiled through the review and analysis of a wide variety of secondary sources, in particular:

- Recent literature published on the future of cities by academics, journalists and practitioners representing disciplines including urban studies, economics, politics, architecture, urban design, geography, history and psychology;
- Reports and commentary on both the present state of the world's cities, and their future outlooks and challenges published by international organisations such as the UN, OECD and World Bank, think tanks, policy organisations, academic institutions, mainstream and business media, global consultancy practices and official city websites;
- National urban strategies, published by central governments or their relevant ministries;
- Published city and metropolitan plans, which outline policies and approaches for future development ;
- Published city indexes, rankings and benchmark reports.

The report also relies on insights gleaned by the authors through their advisory work with a large number of cities, carried out over the course of more than a decade, and their observations from recent seminars, leadership conferences and summit meetings,

⁵<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTURBANDEVELOPMENT/EXTURBANPOVERTY/0,,contentMDK:20227679~menuPK:473804~pagePK:148956~piPK:216618~theSitePK:341325,00.html>

especially detailed work on Metropolitan Strategic Planning exercises in London, New York, Singapore, Barcelona, Bilbao, Rio de Janeiro, Sao Paulo, Toronto, Auckland, Turin, Vienna, Colombo, Bogota and Cape Town.

The paper proceeds in three parts:

- **Part 2** uncovers the heterogeneous nature of the future of cities. It explores the different futures that we anticipate for cities and nations of varying sizes, levels of development and locations; and considers how these different futures will pose unique challenges for both cities and nations.
- **Part 3** takes the discussion on heterogeneity further by exploring some real-world examples of how policymakers and other interested parties at the city, national and global scales are thinking about the future of cities.
- **Part 4** concludes by reflecting on the range of future issues that cities face, and the tools that are needed to address those issues.

2. The cities of the future

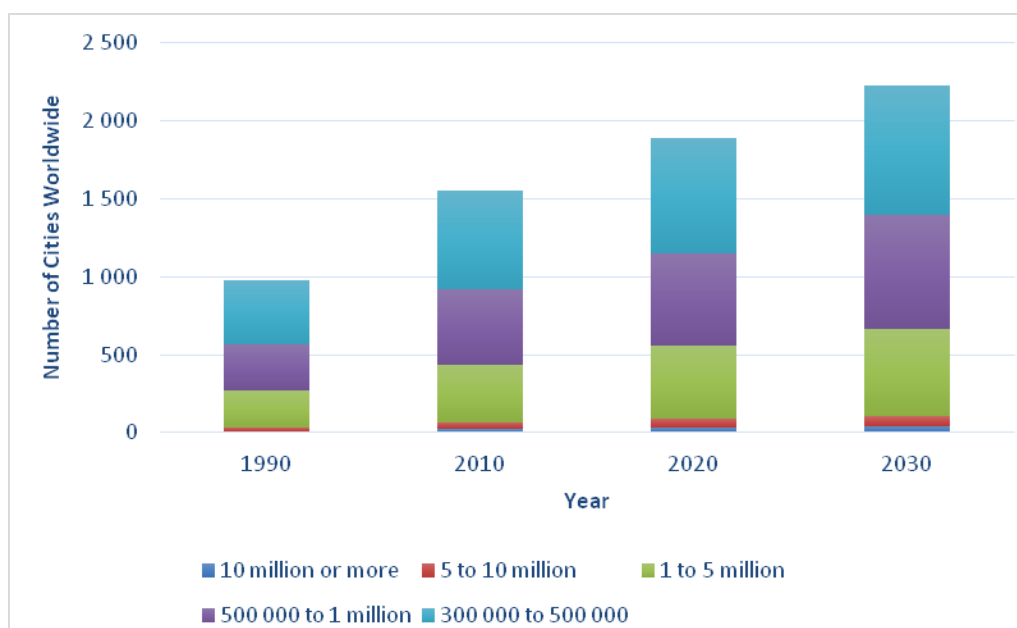
2.1 What will the urbanised world of the future look like

By 2050, it is expected that nearly 70% of the world's population will live in urban areas.⁶ Recent reports by the UN anticipate some of the key differences between today's urban world and that of 2050:

- There will be **more** cities.....

The UN recorded that there were 1,551 cities⁷ worldwide in 2010. By 2030, that number is expected to have surpassed 2,000, with continuing growth to 2050.⁸ Cities of all sizes are expected to continue to grow in number, as Figure 1 shows. For example, whilst there are 43 'large cities' with populations between 5 and 10 million in 2014, there are expected to be 63 by 2030.⁹

Figure 1: Global Numbers of Cities of Different Population Sizes 1990 - 2030



-including **more mega-cities**.

The UN estimates that there will be more than 40 mega-cities worldwide by 2030, each with a population of at least 10 million, compared to 28 today. It is thought that Delhi, Shanghai and Tokyo will each have more than 30 million people by 2030, and will be the world's largest urban agglomerations.¹⁰

⁶ UN State of the World's Cities 2012/13 available at <http://mirror.unhabitat.org/pmss/listItemDetails.aspx?publicationID=3387>

⁷ On the basis of 'Cities' being urban agglomerations with more than 300,000 people

⁸ UN Data available at: <http://esa.un.org/unpd/wup/CD-ROM/Default.aspx>

⁹ <http://esa.un.org/unpd/wup/Highlights/WUP2014-Highlights.pdf> . Graph prepared by authors using UN Data available at: <http://esa.un.org/unpd/wup/CD-ROM/Default.aspx>.

¹⁰ UN World Urbanisation Prospects: 2014 Revision, Available at: <http://esa.un.org/unpd/wup/Highlights/WUP2014-Highlights.pdf>

- More people will live in **bigger** cities.

Overall, 2.5 billion people will be added to the world's urban population by 2050. Today, almost half of the world's urban population live in cities with populations of less than 500,000. More people will continue to live in these smaller cities than in any other city type, but their share of urban dwellers is expected to shrink over time.¹¹

- Urbanisation will continue to be an **uneven process**.

Almost all (nearly 90%) of the increase in urban population by 2050 is expected to be concentrated in Asia and Africa.¹² By 2050, most of the world's urban population will be concentrated in Asia (52%) and Africa (21%). In more advanced nations, urban population growth is almost stagnant (0.67% on an annual average basis since 2010), and in some cases is even decreasing: Japan is expected to lose 12 million urban dwellers by 2050 and the Russian Federation's urban population is expected to decline by 7 million people. By comparison, the aggregate annual population increase in six major developing country cities – New Delhi and Mumbai, Dhaka, Lagos, Kinshasa and Karachi - is greater than Europe's entire population.¹³

- Even within the developing world, some **regions will experience more rapid** and widespread urbanisation than others.

Africa will be the world's most rapidly urbanising continent between 2014 and 2050. It is projected to experience a 16% rise in its urban population— bringing the percentage of people living in its cities to 56%.¹⁴ Paradoxically, this degree of urbanisation will still result in it being one of the least urbanised regions of the world.¹⁵ The fastest growing cities are, and will continue to be medium sized cities and cities with fewer than 1 million inhabitants, located in Asia and Africa. Just three countries—India, China and Nigeria— are expected to account for 37% of the world's urban growth between 2014 and 2050.¹⁶

¹¹ ibid

¹² ibid

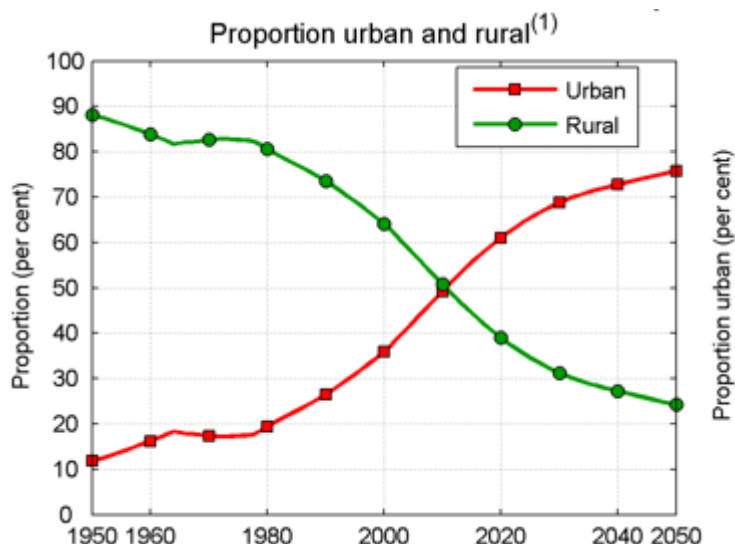
¹³ UN State of the World's Cities 2012/13. Needs a source

¹⁴ <http://esa.un.org/unpd/wup/Highlights/WUP2014-Highlights.pdf>

¹⁵ UN State of the World's Cities 2012/13 Needs a source and ibid.

¹⁶ <http://esa.un.org/unpd/wup/Highlights/WUP2014-Highlights.pdf>

Figure 2: Projected Urbanisation in China¹⁷



As such, global urbanisation presents a very wide range of different contexts for considering the future of cities.

2.2 Distinctive futures for different cities

The uneven rate and nature of urbanisation between and within the world's regions creates highly different prospects for different types of cities, and for cities in different locations. In this section we explore *some* of the types of cities which can expect different 'futures', and regional variations within those typologies. We start with a matrix of city size and city development status.

i. Mega-cities

Several decades ago most of the world's largest cities were found in upper income nations of the world, but the world's largest cities are becoming increasingly concentrated in the global South, as Figure 3 illustrates. By 2030, only four of the 30 largest cities in the world will be in more developed regions of the world, and only seven cities in these regions will classify as 'mega-cities' – cities with populations of more than 10 million.¹⁸ In contrast, there will be 34 mega-cities in the developing world by 2030, spread across Asia, Africa and Latin America. China and India will have seven mega-cities *each*.¹⁹ Whilst growth in the mega-cities of the developed world is relatively slow, stagnant or even declining, mega-cities in developing nations are growing much more rapidly.²⁰ For example, whilst Tokyo will remain the world's largest city in 2030, its total population is expected to be smaller than it is today. In contrast, African mega-cities Lagos and Nairobi will grow by around 4% every 5 years between now and 2025.²¹

Large and small cities are increasingly merging to form new mega-city regions. These mega-city regions often result from the unplanned growth which can be a

¹⁷ <http://esa.un.org/unpd/wup/Country-Profiles/Default.aspx>

¹⁸ UN data available at: <http://esa.un.org/unpd/wup/CD-ROM/Default.aspx>

¹⁹ <http://esa.un.org/unpd/wup/Highlights/WUP2014-Highlights.pdf>

²⁰ UN data available at: <http://esa.un.org/unpd/wup/CD-ROM/Default.aspx>

²¹ *ibid*

corollary of rapid urbanisation, and are characteristic of the developed world.²² However, large city-regions are also growing, albeit at a slower pace, in some mega-cities in upper income nations such as London and Los Angeles. In some cases, mega-city regions form when one particularly large city sprawls to such an extent that it envelops a smaller city or town. This has been witnessed in Bangalore, Mexico City and Cairo. In other countries, two cities of similar size may grow ‘into’ each other’s metropolitan areas, as has been observed in San Diego-Tijuana.²³ As urbanisation continues apace, we can expect urban mega-city regions – particularly in the developing world - to increase in size and number.

Figure 3: Five Largest Cities in the World by Population²⁴

Year	No 1 City	No 2 City	No 3 City	No 4 City	No 5 City
1950	New York	Tokyo	London	Osaka	Paris
1970	Tokyo	New York	Osaka	Mexico City	Los Angeles
1990	Tokyo	Osaka	New York	Mexico City	Sao Paulo
2010	Tokyo	Delhi	Mexico City	Shanghai	Sao Paulo
2030	Tokyo	Delhi	Shanghai	Mumbai	Beijing

ii. Large cities (1 to 10 million)

A large city, with a population of between 1 and 10 million people, often represents the largest city within a given national system. Indeed in 79 countries, including Australia, Ethiopia and Uruguay, the largest city has a population of between 1 and 5 million people at present. Cities towards the bigger end of this group are already predominantly located in the developing world, and although the numbers of large cities will grow across the world over the next few decades, their developing world predominance will become even more pronounced. China already has ten cities with populations between 5 and 10 million people, and will add six more by 2030. The number of African cities of the same size is expected to quadruple to twelve in 2030.²⁵

It is not only in population terms that the centre of gravity is shifting South and East. The world’s most significant economic ‘centres of gravity’ are also moving to the developing world, and towards Chinese cities in particular. Eight European cities will drop out of the global top 50 cities by GDP by 2030, while nine new Chinese cities will join that group, taking the Chinese total to 17 – more than in North America and four times more than Europe.²⁶

iii. Medium sized cities (500,000 to 1 million)

Urban agglomerations with between 500,000 and 1 million inhabitants – and particularly those in Africa and Asia - are amongst the fastest growing urban agglomerations in the world. In 2014 they account for 26 of the world’s 43 fastest-growing cities. These medium sized cities are currently home to 363 million people, but that figure is expected to rise to 509 million in 2030. Nonetheless, the global

²² Although some mega-regions do result from government planning, as in China for example.

²³ UN State of the World’s Cities 2012/ 13Needs a source

²⁴ Compiled using UN data available at: <http://esa.un.org/unpd/wup/CD-ROM/Default.aspx>

²⁵ <http://esa.un.org/unpd/wup/Highlights/WUP2014-Highlights.pdf>

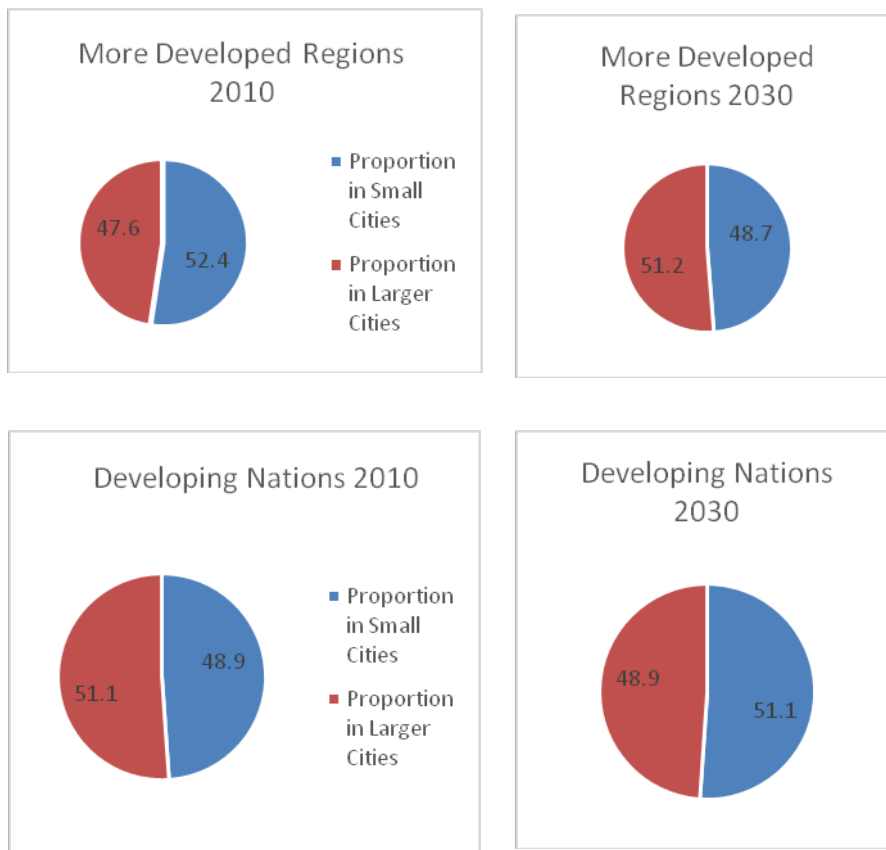
²⁶ www.oxfordeconomics.com/Media/Default/landing-pages/cities/oe-cities-summary.pdf

proportion of urban residents living in medium sized cities will remain at its present level of around 10%.²⁷

iv. Smaller cities (less than 500,000)

Almost two thirds of Europeans live in cities with fewer than 500,000 citizens. More than half of Africa’s urban dwellers also live in this type of city. In the developing world, the proportion of urbanites living in small cities is expected to increase slightly in the future. In more developed regions, the proportion is expected to fall as more people move to bigger cities (Figure 4). Nonetheless, cities with populations of less than half a million will remain highly significant *everywhere*, remaining home to almost half of the world’s urban population by 2030.²⁸ Smaller cities will continue to play important roles in future systems of cities as catalysts and secondary hubs in facilitating localised production, transportation and transfer of goods, people, trade, information and services.²⁹

Figure 4: Proportion of urban resident in smaller cities (fewer than 500,000 citizens) and larger cities (more than 500,000 citizens) in more developed regions and developing regions in 2010 and 2030³⁰



²⁷ <http://esa.un.org/unpd/wup/Highlights/WUP2014-Highlights.pdf>

²⁸ UN data available at <http://esa.un.org/unpd/wup/CD-ROM/Default.aspx>

²⁹ www.citiesalliance.org/sites/citiesalliance.org/files/CIVIS%20SECONDARY%20CITIES_Final.pdf

³⁰ Charts compiled using UN data available at: <http://esa.un.org/unpd/wup/CD-ROM/Default.aspx>

The uneven nature of urbanisation means that the **systems of cities** within countries are also developing in distinctive ways, which will affect the future of all cities within that system. Some different types of systems of cities include:

i. Countries or regions with a primate city

Many countries, in both the developing world and more mature economies, have systems of cities which are characterised by the concentration of significant proportions of the national urban population, wealth, financial flows and production in one city, which is usually – but not always – the capital. This is often true in smaller and medium sized nations. Urban primacy is the norm in most developing countries that are in the early stages of urban transition.³¹ In general, urbanisation in Africa features a conspicuous degree of primacy.³² As urban transition continues, growing resources allow for a de-concentration of people and wealth.³³ It is not yet clear how the future patterns of urbanisation will shape the systems of cities within African countries. Government policy can affect primacy – for example Latin American countries have also largely displayed monocentric city systems to date (e.g. Argentina, Peru, Ecuador, Mexico, Chile), but this trend appears to be changing with increased government support for secondary and smaller cities (see below).

Mature, upper income nations may also be characterised by monocentricity – primacy is particularly prevalent in smaller countries, for example the UK, Austria, Greece, and Scandinavian and Baltic countries. There is some concern that ‘lock-in’ or ‘path-dependent’ development may result in an increasing degree of primacy in countries which already display monocentric systems of cities. As a historical indicator of this propensity, primate cities (worldwide) grew at an average rate of 3.1% per year between 1990 and 2000, compared to an average of 2.5% for all types of cities.³⁴ Typically, national governments have tried to disperse wealth and urbanisation benefits across a territory, and minimise the degree of primacy in their system of cities. But within an increasingly internationalised economy, primate cities also offer nations a mechanism for cross-border competitiveness for contested investments and specialised opportunities that provide an alternative logic for continued concentration.

ii. Countries or regions with a divided system of cities

For historic political and geographical reasons some countries have seen systems of cities evolve with wide variation in economic make-up, demographic composition and political pluralism. For example, cities in coastal China are, on the whole, wealthier than those in the country’s hinterlands, as Figure 5 shows. The country’s five wealthiest cities by GDP - Beijing, Shanghai, Guangzhou, Shenzhen and Tianjin - are all close to the country’s eastern coast.³⁵ This asymmetry is partially attributable to the fact that much of China’s recent economic development has been led by the rapid expansion of exports. China established 15 free trade zones in coastal areas, most of which are located near cities with major ports. In addition, 15 export processing zones were established, again mostly in coastal areas.³⁶

³¹ UN State of the World’s Cities 2008/9 Needs a source

³² UN State of the World’s Cities 2012/ 13 Needs a source

³³ UN State of the World’s Cities 2008/9 Needs a source

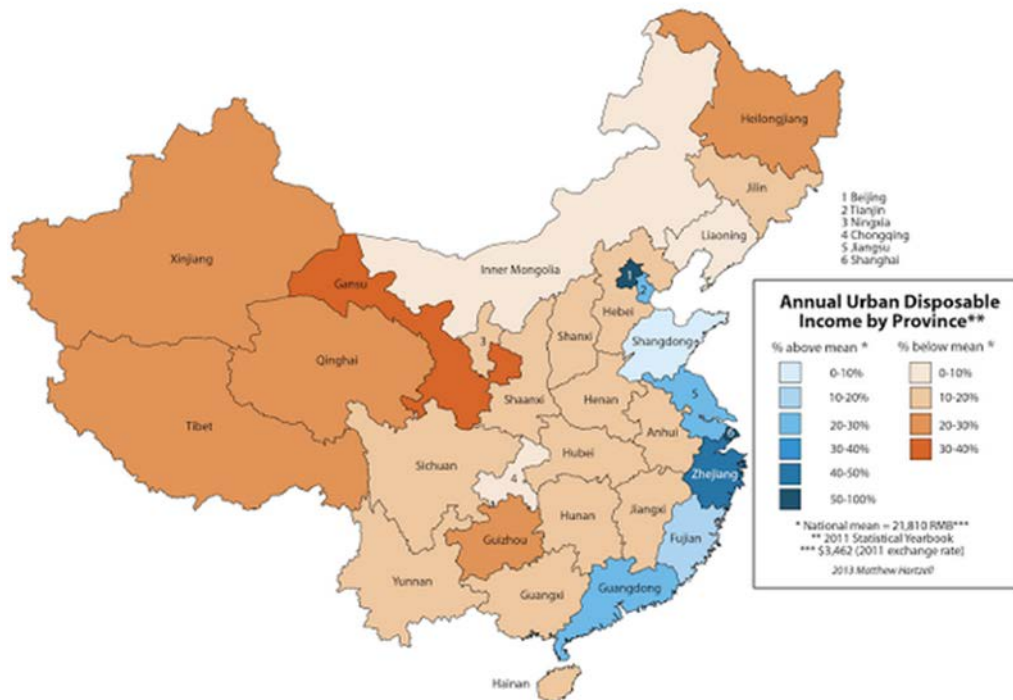
³⁴ *ibid*

³⁵ www.tealeafnation.com/2014/03/map-half-of-chinas-gdp-comes-from-major-cities/

³⁶ www.frbsf.org/economic-research/publications/economic-letter/2009/april/interprovincial-inequality-china/

Asymmetry can also characterise developed world city systems. For example, northern and central Italian cities are typically richer than their southern counterparts due to the productivity effects of industrialisation.³⁷

Figure 5: Annual urban disposable income in China, 2011³⁸



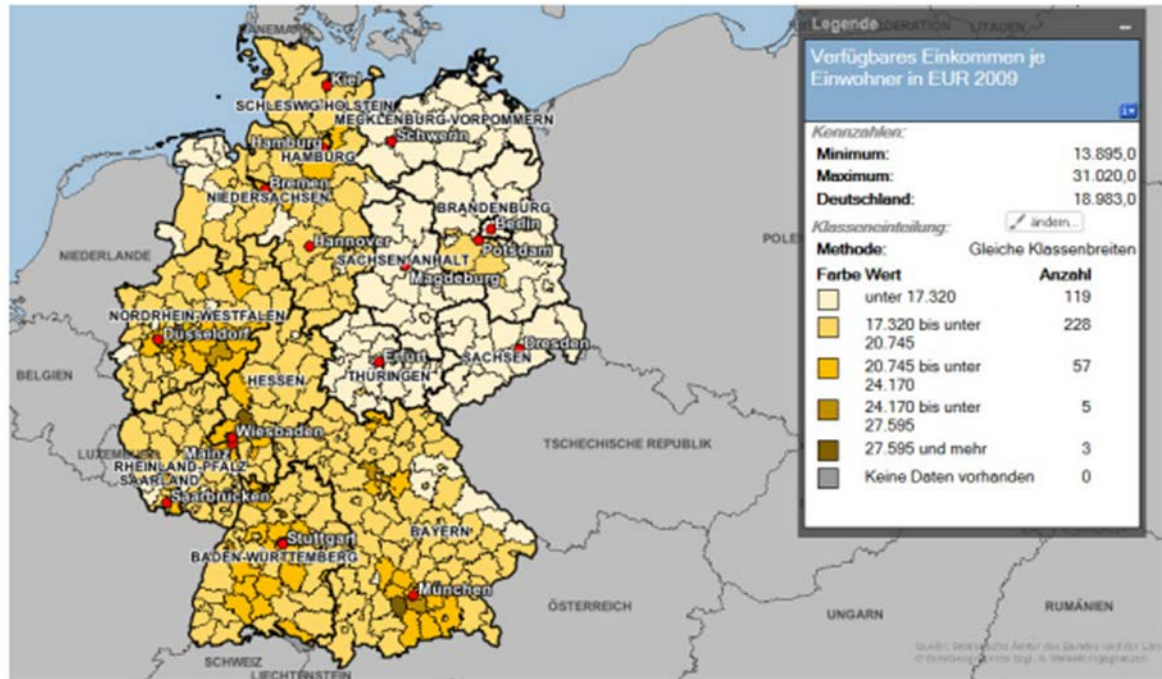
In upper income nations, the decline of heavy manufacturing and deindustrialisation has left patches of struggling cities in some countries. For example in the UK, cities in the North have struggled with the decline of coal, steel, shipbuilding and textile industries which were based in the region's cities. The 'Rust Belt' of US cities such as Cleveland, Detroit and Buffalo has suffered a similar fortune. Historical and political influences have also created divided systems of cities. In Germany, the differing fortunes of East and West Germany have not been substantially erased by re-unification: as Figure 6 shows income levels in and around East German cities such as Dresden, Erfurt and even Berlin remained lower than those in West German counterparts such as Munich, Hamburg and Dusseldorf. In Colombia, the patterns of colonial resource extraction created a system of cities with very limited internal connectivity. The urbanisation disparities between North Korea (60.3% urbanised in 2011) and South Korea (83.2% urbanised in 2011) show this stark politically induced asymmetry at a regional level.³⁹

³⁷ OECD Territorial Reviews: Italy 2001 available at: www.oecd-ilibrary.org/urban-rural-and-regional-development/oecd-territorial-reviews-italy-2001_9789264193420-en;jsessionid=88pfrn5174gub.x-oecd-live-01
http://books.google.co.uk/books?id=gKZP8_Tp27UC&pg=PA158&dq=north+south+gap+italy&hl=en&sa=X&ei=LpQNVN
[XGB8jN7Ab64ICiDg&ved=0CCAQ6AEwAA#v=onepage&q=north%20south%20gap%20italy&f=false](http://books.google.co.uk/books?id=gKZP8_Tp27UC&pg=PA158&dq=north+south+gap+italy&hl=en&sa=X&ei=LpQNVN)

³⁸ Matthew Hartzell images taken from <http://matthartzell.blogspot.co.uk/2013/09/chinas-economic-disparity-in-maps.html>, also cited on www.theatlantic.com/china/archive/2013/09/mapping-chinas-income-inequality/279637/

³⁹ CIA World Factbook available at: www.cia.gov/library/publications/the-world-factbook/fields/2212.html

Figure 6: Income polarisation in Germany, 2009⁴⁰



iii. Countries or regions with polycentric city systems

Some national city systems are characterised by a network of cities of similar size and/or economic power - in other words they are polycentric, and potentially complementary. Larger upper income nations, such as the USA, Germany, Japan, Canada and Australia, often have polycentric systems. So too, do some smaller upper income countries such as Switzerland, Netherlands, Poland, and Spain. Their mature economies and slow projected rates of future growth, make it likely that this polycentricity will persist in the future. In the developing world, some Latin American systems of cities (e.g. Colombia, Brazil) are witnessing a change from monocentric patterns of development to polycentric and urban corridor forms, encouraged by national policies aimed at promoting growth of intermediate cities.⁴¹ Arab States are also expected to display increasing polycentricity in the future.⁴²

These three types of national system of cities are by no means the only scenarios, but they do represent three broad trends. Country size, character of economic development, and the nature of governance systems (e.g. whether more or less centralised/decentralised) play significant roles in shaping how such system emerge and evolve.

2.3 Challenges for the future

Some future challenges are common to all cities across the world. For example, every city needs to plan for, and mitigate, the effects of future climate change (although some cities, for example those located in coastal regions, may be more at risk from its effects than others). Equally, global issues such as terrorism, epidemic disease and drugs trafficking are universal issues that all cities will have to tackle in future. However it is

⁴⁰ <http://demographicleipzig.wordpress.com/2012/06/13/germanysaxonyleipzig/>

⁴¹ Ibid and www.mckinsey.com/insights/urbanization/urban_world

⁴² UN State of the World's Cities 2012/ 13Needs a source

important to recognise that different cities face unique combinations of future challenges. A broad categorisation of future challenges is possible according to city size and level of development, but with the caveat that no city faces exactly the same future or challenges as another:

i. Large cities in upper income nations

Major challenges facing large cities in upper income nations include:

Ageing infrastructure

In many established cities, infrastructure installed during the early phases of industrialisation is coming to the end of its operational life cycle. Existing systems are coming under increasing strain due to population growth and the effects of climate change, and in some cases infrastructure is becoming obsolete; no longer able to meet regulatory requirements or changing service expectations.⁴³ A recent report by the Centre for an Urban Future illustrates the scale of the problem in New York City, where it was found that 37% of subway signals have exceeded their useful life, 63% of cargo facilities at JFK airport are “non-viable”, 24% of the water that enters distribution mains never reaches customers due to leaks and other diversions and 11% of bridges are structurally deficient. It is estimated that \$47bn is needed over the next four to five years simply to bring the city's ageing infrastructure to a state of good repair.⁴⁴ Other large established global cities face problems of similar proportions. Financing such large scale improvements is clearly challenging even for the wealthiest of cities. There are also challenges in the logistical difficulties and economic impact of interrupting functioning systems for repair works.

Ageing populations

Cities across developed nations, and particularly in Europe and North-East Asia, are experiencing low fertility rates and already have aged populations that will continue to age up to 2050.⁴⁵ Within Europe, a dramatic increase in very old people is an important aspect of this ageing: the number of those aged 80 and above will sharply increase: if the present trend continues this would result in a doubling every 25 years. In the next 30 years, this age group will represent more than 10% of the population in many EU cities.⁴⁶ Japanese cities are also ageing rapidly. In Tokyo, more than a third of citizens will be over 65 by 2040, and nearly half are predicted over 65 by 2100.⁴⁷ Ageing populations place a significant burden on welfare systems, and make it increasingly important to ensure that public infrastructure services and design provide attractive conditions for different age groups and family types.⁴⁸ Although older persons in most OECD countries receive support from social security systems, their poverty rate tends also to be higher than the population average.⁴⁹

⁴³ www.cee.siemens.com/web/ua/en/products_and_solutions/energy/Documents/MegaCity_Challenges_en.pdf

⁴⁴ www.gothamgazette.com/index.php/opinion/5151-needed-infrastructure-improvements-must-get-dedicated-funding-forman

⁴⁵ www.pewresearch.org/fact-tank/2014/02/04/the-countries-that-will-be-most-impacted-by-aging-population/ UN State of the World's Cities 2012/13 and

www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2013.pdf

⁴⁶ http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/citiesoftomorrow/citiesoftomorrow_final.pdf

⁴⁷ www.telegraph.co.uk/news/worldnews/asia/japan/9519203/Tokyo-population-to-halve-in-next-90-years.html and http://ajw.asahi.com/article/behind_news/social_affairs/AJ201306120055

⁴⁸ Second State of European Cities Report 2010Needs a source

⁴⁹ www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2013.pdf

Inequality and social cohesion

The attractiveness of established world cities to national and international migrants alike mean that they are often melting pots of a huge diversity of people with different economic, cultural, social and ethnic characteristics. The largest cities in the developed world are microcosms of the world at large – for example London’s 4 million workers speak more than 260 different languages. In Amsterdam people from 174 countries live and work together.⁵⁰ These cities face the challenge of managing that diversity, maintaining social cohesion, and ensuring that they are places where everybody is welcome and their integrity is respected.

Increasing competition for global leadership

Today, major urban areas in developed regions are, without doubt, economic giants. McKinsey Global Institute found that half of global GDP in 2007 came from 380 cities in developed regions, with more than 20% of global GDP coming from 190 North American cities alone. However, by 2025 one-third of these developed-market cities will no longer make the top 600 wealthiest cities. By 2025, 136 new cities are expected to enter the top 600, all of them from the developing world and overwhelmingly—including 100 new cities—from China.⁵¹ The economic powerhouses in developed regions face the complex challenge of maintaining their global competitiveness in the face of this enhanced competition from the developing world.

ii. Small cities in upper income nations

Small cities in upper income nations will struggle with many of the same challenges as their larger counterparts. However there a number of additional issues which may particularly impact on these smaller cities:

Population decline

The effect of net migration into cities in upper income nations is that most are continuing to grow (albeit slowly) despite (often) declining fertility rates. However, this is not the case in all cities, and some smaller cities and cities located in peripheral or ‘lagging’ regions, particularly in Central and Eastern Europe, are beginning to shrink as Figure 7 shows . The trends shown in this figure are supported by more recent annual data provided by the EU Urban Audit.⁵² Shrinkage of a city is not necessarily a problem in and of itself, but can pose challenges – for example newly vacant buildings can reduce the capital value of real estate, and a diminishing tax base can effectively increase the per capita cost of public infrastructure such as schools, hospitals and libraries, possibly making them commercially unviable.⁵³

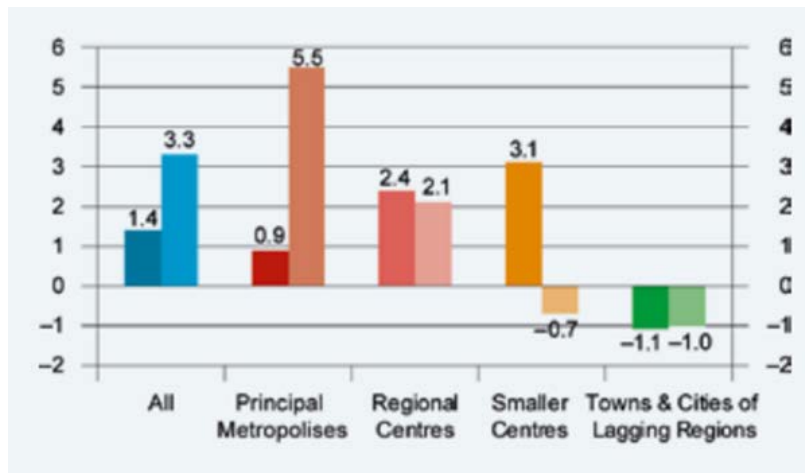
⁵⁰ www.amsterdameconomicboard.com/download.php?itemID=219

⁵¹ www.mckinsey.com/insights/urbanization/urban_world

⁵² http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/citiesoftomorrow/citiesoftomorrow_final.pdf

⁵³ *ibid*

Figure 7: Percentage Demographic Change in Europe between 2001 and 2004 by City Type⁵⁴



Note that the Core city area in each category is shown in the dark colour, whilst the larger urban zone is shown in the right hand, lighter column.

Competing globally

The largest cities within a national system of cities are generally predisposed to a global market orientation, scope and function. They are important logistical centres and trading hubs, and the size of their labour markets generally makes them particularly attractive to businesses and workers. However, globalisation has opened up cities of *all* sizes to global competition, and smaller cities may face greater difficulties in forming globally competitive offerings and attracting foreign investment, workers and visitors, being limited by the diversity of their economies, the size of their workforces and their restricted ability to benefit from agglomeration economics and economies of scale. As Richard Florida has put it:

*“Rampant globalisation exposes smaller, niche cities to an onslaught of ferocious global competition.....the world is heading toward a single globalised system of cities, with ever large cities at the top and much more volatility and turbulence for small and medium size ones. This will likely reinforce the position of the New Yorks, Londons, Tokyos, Sao Paolos and Shanghais of the world, while smaller and medium size cities face far greater turbulence and volatility.”*⁵⁵

Economic restructuring

Cities in developed nations have been experiencing transition to post-industrial economies over recent decades. Some smaller cities (particularly in Europe, North America and Japan) which generally have less diverse economies than their larger national counterparts, have found it difficult to adjust to the decline of manufacturing industries, to diversify and revitalise their economies, and to retain capital and attract investment. These problems threaten to persist in future as these declining cities face outmigration and become increasingly disadvantaged and disconnected from their national system of cities. The low-skilled unemployed face serious challenges in upgrading their skills and reintegrating into the labour market.⁵⁶ Cities which have

⁵⁴ http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/citiesoftomorrow/citiesoftomorrow_final.pdf adapted from Second State of Cities Report 2010 ? ibid

⁵⁵ www.citylab.com/work/2012/03/why-some-cities-lose-when-others-win/1611/

⁵⁶ ibid

historically been dependent on single sectors, especially traditional manufacturing or raw material based industries, are among those facing the stiffest challenges.

iii. Larger cities in developing world

Throughout the developing world the sheer pace of urbanisation is creating a range of future challenges for cities, which are often compounded by a lack of institutional capacity. Although some national governments have begun to decentralise service delivery and fiscal powers to local levels of government, generally these lower tiers do not have enough resources to manage the growth of their cities.⁵⁷ Particular issues for the largest cities in the developing world include:

Inadequate transport infrastructure and severe congestion

The rate of urbanisation in the cities of the developing world typically means that delivery of infrastructure is much slower than the city's growth. Many large cities in the developing world are characterised by public transport that is overcrowded and overused, and by severe congestion resulting from inadequate road infrastructure. PWC's Cities of Opportunity report rated the public transport systems of 30 global cities in 2014. Mega-cities in the developing world took seven of the ten bottom spots.⁵⁸ Continuing population growth, urban sprawl and pressures from climatic hazards threaten to worsen this situation over time.

Population housing and slums

Few city governments in the developing world have the power, resources, or capacity to provide their rapidly growing populations with the land, services, and facilities they need. The result is unplanned growth and mushrooming illegal settlements with primitive facilities, overcrowding, and rampant disease. An estimated 1 billion people currently live in slums lacking access to basic infrastructure and services such as water, sanitation, electricity, health care and education, and the UN predicts that this number could rise to 3 billion by 2050.⁵⁹ Already, more than half of urban dwellers in countries of sub-Saharan Africa and 40% in Asia lack access to basic sanitation.⁶⁰

Figure 8: Proportion of urban population in developing nations living in slums⁶¹



⁵⁷ www.un.org/en/development/desa/policy/wess/wess_current/wess2013/Chapter3.pdf

⁵⁸ www.pwc.com/us/en/cities-of-opportunity/2014/assets/cities-of-opportunity-2014.pdf

⁵⁹ <http://sustainabledevelopment.un.org/content/documents/2843WESS2013.pdf>

⁶⁰ Baker et al 2012 needs a complete reference, cited in:

www.un.org/en/development/desa/policy/wess/wess_current/wess2013/Chapter3.pdf

⁶¹ Source: www.cee.siemens.com/web/ua/en/products_and_solutions/energy/Documents/MegaCity_Challenges_en.pdf

Demographic challenges

There is considerable heterogeneity in the projected demographic trends for the largest cities of the developing world. By 2030 Africa's cities will feel fundamentally different to those of Asia and other continents: they will be overwhelmingly young, with an explosion in the under-14 population. This represents an opportunity for African cities, but also a significant risk as they seek to absorb millions of young people into their labour forces.⁶²

The size of households in the developing world is in general decreasing, which means that households are increasing in number. McKinsey Global Institute estimates that the world's 600 most economically productive cities will see the formation of 250 million additional households by 2025. An estimated 85% of these households will form in the cities of emerging regions; half of the total will be in China's cities alone. This growth will place inevitable stress on housing stock.⁶³

Environmental problems

Air and water pollution, waste management and degradation of green areas are issues in most large cities around the world, and are particularly extreme in the mega-cities of the developing world. In London and Tokyo, for example, air quality has improved over the last 50 years. In Shanghai and Kuala Lumpur, it has deteriorated.⁶⁴

Social and economic inequality

Whilst rural areas are currently home to a majority of the world's poor, the World Bank estimates that by 2035 cities will be the predominant locations of poverty.⁶⁵ In cities however, unlike in the countryside, poor citizens live in close proximity to the very rich. In general, income inequalities are higher in the developing world than in developed nations,⁶⁶ and inequalities within urban areas are generally most pronounced in emerging mega-cities.⁶⁷ The extent of the future challenge of reducing urban inequality varies across the developing world. In Latin America and the Caribbean it is declining, but in Asia the economic urban divide is widening. African cities are currently the most unequal in the world, but the future outcomes of its continuing urbanisation are not yet clear – some African cities are managing to close inequality divides, whilst in others divides continue to grow.⁶⁸ Inequality in developing world cities often manifests itself spatially, with wealthier citizens choosing to reside on the outskirts of cities where they enjoy greater privacy, have bigger homes and are spared having to use public transportation.⁶⁹

⁶² www.oxfordeconomics.com/Media/Default/landing-pages/cities/oe-cities-summary.pdf

⁶³ www.mckinsey.com/insights/urbanization/urban_world

⁶⁴ www.cee.siemens.com/web/ua/en/products_and_solutions/energy/Documents/MegaCity_Challenges_en.pdf

⁶⁵ *ibid*

⁶⁶ UN State of World's Cities 2010/11 http://sustainabledevelopment.un.org/content/documents/11143016_alt.pdf

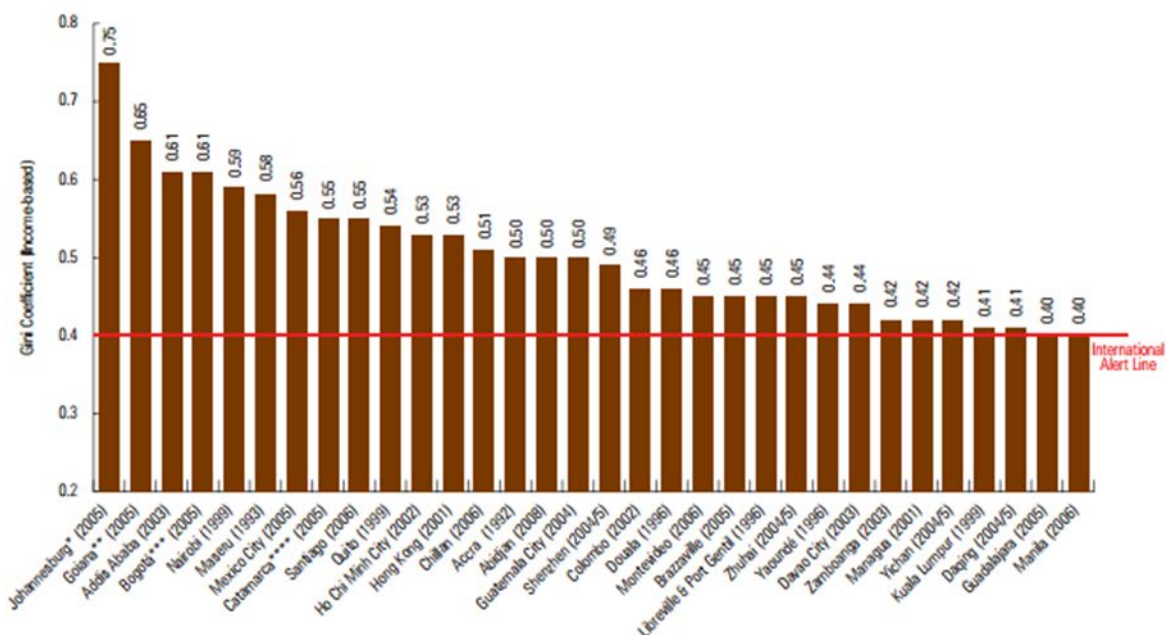
⁶⁷ www.cee.siemens.com/web/ua/en/products_and_solutions/energy/Documents/MegaCity_Challenges_en.pdf

⁶⁸ UN State of World's Cities 2010/11 – available at:

http://sustainabledevelopment.un.org/content/documents/11143016_alt.pdf

⁶⁹ www.un.org/en/development/desa/policy/wess/wess_current/wess2013/Chapter3.pdf

Figure 9: Most unequal cities in the developing world 1993-2008⁷⁰



* In addition to other seven South African cities: East London (0.75), Bloemfontein (0.74), East Road (0.74), Pietermaritzburg (0.73), Pretoria (0.72), Port Elizabeth (0.72), Dublin (0.72) and Cape Town (0.67)
 ** In addition to other six Brazilian cities: Fortaleza (0.61), Belo Horizonte (0.61), Brasilia (0.60), Curitiba (0.59), Rio de Janeiro (0.53) and São Paulo (0.50)
 *** In addition to other three cities in Colombia: Barranquilla (0.57), Cali (0.54) and Medellín (0.51)
 **** In addition to other two cities in Argentina: Buenos Aires (0.52) and Formosa (0.44)

Source: UN-HABITAT, Global Urban Observatory, 2009. Data from UN-ECLAC, UN-ESCAP, UNU and other sources.

iv. Smaller cities in developing world

Smaller cities in the developing world face many of the same problems as their larger counterparts, and indeed often experience these problems in an aggregated form, because they generally have fewer human, financial and technical resources at their disposal. Particular issues for smaller developing cities include:

- **Weak economies** and inadequate links with more economically dynamic cities.⁷¹ A major challenge for smaller cities is developing an economy which meets the needs of citizens and local firms and has good links with larger trading centres.
- **Inadequate infrastructure for provision of basic public services.** Smaller cities - especially those with under 100,000 inhabitants—are notably underserved in housing, transportation, piped water, waste disposal and other services.⁷² Infant and child mortality can be high in small cities as a result of inadequate access to public health facilities.⁷³ Public services which are provided are often of low quality.⁷⁴
- **Weak Urban Governance** – including poor urban planning capacities, deficient institution building and failures to adjust to changing land development conditions.⁷⁵

⁷⁰ UN State of World's Cities 2010/11 needs a source

⁷¹ www.un.org/en/development/desa/policy/wess/wess_current/wess2013/Chapter3.pdf

⁷² www.unfpa.org/swp/2007/english/notes/notes_for_indicators1.html#14

⁷³ www.un.org/en/development/desa/policy/wess/wess_current/wess2013/Chapter3.pdf

⁷⁴ ibid

⁷⁵ ibid

Case study: Gaborone, Botswana

Gaborone exemplifies many of the challenges which are faced by smaller cities in the developing world. A small administrative post for much of its recent history, the city has grown rapidly, from 17,700 people in 1971 to a projected 500,000 by the year 2020.

The city's rapid growth has created a range of problems which threaten to worsen as population continues to boom. The challenges it faces include low-density sprawl; high unemployment rates; high poverty rates (currently at 47%); the proliferation of the informal sector; high HIV/AIDS prevalence rates; residential segregation; and insufficient infrastructure, as well as inadequate water supply and sanitation. Although Gaborone benefits economically to a certain extent from revenue generated by Botswana's diamond mines, nonetheless the very poor live in unplanned informal settlements which are difficult to reach and not connected to water and sewage systems.

Adapted from the UNFPA State of the World Population (2007)

2.4 National level future challenges

It is not only cities which face different challenges in their diverse futures. National governments are also dealing with different imperatives when managing their national system of cities. For example, countries with a dominant or primate city are typically concerned to accelerate the development and competitiveness of their secondary and tertiary tiers of cities, so as to rebalance national economies and minimise inter-regional disparities without jeopardising the success of their leading city/ies.

National governments with divided city systems are similarly concerned to promote growth of their less competitive cities and achieve better connectivity and collaboration between their cities, which can be costly. Leaders and policymakers will be concerned that continuing imbalance may have serious consequences for national unity and political stability.⁷⁶

National leaders in countries with polycentric city regions have a completely different set of future concerns. They will want to ensure that, as far as possible, cities within their national systems develop complementary rather than competing roles. They may calculate that it is better for cities within a given region to work together in clusters, so as to gain sufficient critical mass to be internationally competitive. This 'cluster' strategy is being developed in China and considered in the North of England.

Varying paces of urbanisation and different economic and demographic contexts also create different considerations when planning the future of national systems of cities. For example, whilst Indian leaders will need to manage the rapid transition from a rural to an urban economy in their urbanisation policies, national leaders in Poland or Portugal are likely to be more concerned with preventing outmigration from their cities.

⁷⁶ www.un-documents.net/ocf-09.htm#II.1

3. Global scan - thinking about the future of cities

Section 2 has shown that cities around the world face a complex array of futures, and will need to grapple with their own distinct challenges. Equally, national governments face strategic choices and tasks in planning for the future of their national systems of cities. This section of the paper explores how bodies at different geographical scales are engaging with the future of cities in practice. We look first at how national governments, and other bodies concerned with national systems of cities, are thinking about the future of their cities. We then explore how inter-governmental and transnational institutions are engaging in the same exercise at the regional system level. This section concludes with a series of short case studies of local city/metropolitan level studies and initiatives that illustrate how cities around the world are organising for their own futures.

3.1 National level

A number of national governments have begun the process of re-assessing the trajectory of their urbanisation. Some national level studies of future cities are initiated by government, and others by the national business community or international consultants.

i. Norway: Cities of the Future

Cities of the Future is a collaborative project between the Norwegian Government and the 13 largest cities in Norway which aims to reduce greenhouse gas emissions and make the cities more liveable. The six-year programme, which commenced in 2008, is currently in its final year. The cities involved in the programme are Oslo, Bærum, Drammen, Sarpsborg, Fredrikstad, Porsgrunn, Skien, Kristiansand, Sandnes, Stavanger, Bergen, Trondheim and Tromsø. Together, their inhabitants represent almost half of the population of Norway.⁷⁷

⁷⁷ www.regjeringen.no/en/sub/framtidensbyer/cities-of-the-future.html?id=548028

Figure 10: Cities involved in Norway's Cities of the Future Project⁷⁸



The Cities of the Future programme envisions a future in which Norway's cities are compact and densely built urban areas which favour walking and cycling instead of using cars, and which have fewer roads but more parks and green space. The programme aims to make better use of available resources, and develop effective measures to encourage greener cities. It seeks to help city municipalities to share their climate friendly city development ideas with each other and with the business sector, the regions and the national government. The programme emphasises that if it is to be successful, co-operation is required from a number of different stakeholders:

- From the business sector to make green products commonplace.
- From the government to avoid building workplaces where there is no tram or bus.
- From citizens, so that cities are built where people want to live.⁷⁹

The participating cities have each developed action plans, working together with the government and neighbouring local and regional authorities, industry, businesses, organisations and the general public. These action plans function as binding agreements between the government and the cities, detailing their commitments around land-use and transport, energy and buildings, consumption and waste and climate change adaptation.⁸⁰

⁷⁸ www.regjeringen.no/en/sub/framtidensbyer/the-participating-cities-.html?id=548188

⁷⁹ www.regjeringen.no/en/sub/framtidensbyer/cities-of-the-future.html?id=548028

⁸⁰ www.regjeringen.no/en/sub/framtidensbyer/the-participating-cities-.html?id=548188

ii. China: continuing urbanisation as a plank of national economic policy

In March 2014, the Chinese Government published its *National New-type Urbanisation Plan*. The Plan reaffirms China's commitment for "human-centred and environmentally friendly" urbanisation, and targets a new growth model that is more based on domestic services and consumption than the country's traditional export-led model. The plan looks ahead to 2020 and heralds the start of a six-year phase of state-led transport and infrastructure construction that will move a further 100 million people into cities.

The Plan aims for every city in China with over 200,000 residents (of which there are more than 600) to be connected into the national rail and motorway system by 2020, and all larger (500,000+) cities to be accessible by high-speed rail. It also addresses the problem of temporary unregistered migrants in cities, by pledging to grant 100 million migrant workers permanent urban housing registration permits (hukou) by 2020.⁸¹

Since 2012, the Chinese national government has also been committed to smart cities, drawing on international models and collaborations. As of 2014 the Ministry of Housing and Urban-Rural Development (MOHURD) has approved over 190 cities (75+ larger prefecture level cities, the rest county-level cities, districts and townships) to be eligible for its Smart City Pilot Program. More than 80 have already signed plans. MOHURD has pledged nearly £100bn (1tn RMB) for smart city initiatives in four areas:

- Planning, design and construction methods
- Energy supply systems and networks
- Transport and mobility systems
- Communication methods⁸²

The Ministry selects the cities in tandem with the provincial governments. Traffic management is often a key priority behind these projects, moving from standalone management structures to more interconnected platforms for information sharing purposes.

"The Smart City involves the integrated use of modern science and technology, the integration of information resources, combined business application systems, and strengthening the model of urban planning, construction and management."

Ministry of Housing and Urban Development, November 2012.⁸³

iii. Poland: legislating for a new urban landscape

In March 2014, the Polish Ministry of Infrastructure and Development presented a new draft National Urban Policy *Krajowa Polityka Miejska*, which is currently out for consultation and will be voted on for approval by the end of the year. The Strategy aims to strengthen the capacity of cities in Poland to generate sustainable growth, new jobs

⁸¹ Anderlini, Jamil (2014). 'China reveals blueprint to expand urbanisation'. Financial Times. Mar 17. Available at <www.ft.com/cms/s/0/ea62ecc2-ad89-11e3-af3e-00144feab7de.html#axzz2wJ31yMRB>. Accessed 2014 Apr 14.

⁸² MOHURD (2014). 'General Office of the Ministry of Housing and Urban Construction Notice on national smart city pilot work'. Available at <www.mohurd.gov.cn/zcfg/jsbwj_0/jsbwjjskj/201212/t20121204_212182.html>. Accessed 2014 Apr 16.

⁸³ Ibid

and improved quality of life. It represents the Polish government's first attempt to fit public policies to the needs and opportunities of cities.⁸⁴

The objective of the National Urban Policy is to create cities which are competitive, strong, integrated, cohesive and sustainable and efficient. The policy focuses on ten key themes related to Polish cities' biggest challenges:

- spatial development;
- social engagement;
- transport and urban mobility;
- low-emission economy and energy efficiency;
- urban revitalisation;
- investment policy;
- economic development;
- environmental protection and adaptation to climate change;
- demography; and
- management of urban areas.⁸⁵

The strategy suggests changes in the national legal framework which are necessary if national urban policies are to develop. The Infrastructure Ministry will also create knowledge centres to be used by local urban policymakers.⁸⁶

iv. Uganda: managing urban growth to 2025

Urbanisation in Uganda is low (only 15% of the population lived in urban areas in 2010)⁸⁷ but rapidly increasing, as poverty and conflict drive rural populations towards the nation's cities. By 2035 the country is expected to be 30% urbanised. The country's system of cities features a strong degree of primacy, with the capital Kampala currently generating 50% of GDP.⁸⁸ Challenges faced by Ugandan cities include:

- Absorbing migrants into urban economies in a productive way;
- Strained regional transportation systems, particularly for daily commuters (of which there are one million in Kampala);
- Balancing urban income distribution which is highly unequal at present;
- Slum dwellings – 60% of Kampala's population live in slums;
- Food insecurity as a result of rising urban food prices;
- Sanitation, particularly the contamination of underground water sources by pit latrines.⁸⁹

⁸⁴ www.ceec.uitp.org/poland-national-urban-policy-progress

⁸⁵ http://ec.europa.eu/environment/land_use/pdf/Starzewska.pdf

⁸⁶ www.ceec.uitp.org/poland-national-urban-policy-progress

⁸⁷ <http://esa.un.org/unup/unup/p2k0data.asp>

⁸⁸ www.citiesalliance.org/node/432

⁸⁹ Ibid and Brown (2014) *Uganda's Emerging Urban Policy Environment* available at <http://link.springer.com/article/10.1007/s12132-014-9224-6>

In recognition of these challenges, the Ugandan national government is developing a national urban policy. The Cities Alliance (a global partnership formed of members from local authorities, national governments, non-governmental organisations and multi-lateral organisations) is assisting with development of the policy and the country's strategic plan for managing its urban growth up to 2025. The Alliance is providing a grant of \$450,000 grant for the project, whilst local partners and other organisations will provide an additional \$405,000. The policy will provide specific directions to guide urban investments and will focus on:

- Enhancing competitiveness in the urban sector to drive economic growth;
- Articulating strategies to improve urban sector planning, development and management, service delivery, livelihood and urban governance; and
- Providing strategies to promote social inclusiveness.⁹⁰

v. Brazil: an evolving national approach to cities

Brazil's 20th century governments had a long and largely unsuccessful record of discouraging urbanisation because of perceived social costs. But in 1988 the passing of the Federal Constitution (FC) reshaped the way Brazil's cities are governed and thought about. The FC provided the first constitutional framework for the development of land and urban management. It formally recognised the principle of autonomy for municipal governments, the social function of housing, democratisation, the upgrade of informal settlements and the need to combat land speculation. In the 1990s some of the principles of the FC began to shape urban policy. Urban master plans, environmental laws and land regularisation laws were signed at the local level.

Figure 11: Brazil's 20 metropolitan areas with population in excess of one million⁹¹



⁹⁰ www.citiesalliance.org/node/432

⁹¹ Observatório das Metrôpoles (2010). *Regiões Metropolitanas do Brasil*. Available at <www.observatoriodasmetrôpoles.net/download/observatorio_RMs2010.pdf>. Accessed 2014 April 2.

Nonetheless, in response to slow legislative progress, the National Forum of Urban Reform (NFUR) was created. The NFUR campaigned vigorously in the 1990s for a federal law and government department to regulate urban policy, and for a national fund for social housing. Breakthroughs on all of these goals were achieved by 2005, most notably in 2001 when the constitutional principles of urban policy were enacted in the City Statute.

The 2001 City Statute broke from Brazilian tradition by requiring that the rights of property owners must be balanced against social needs and citizens' 'right to the city'. All cities with more than 20,000 inhabitants were given five years to submit urban master plans.⁹² The legislation armed municipalities with legal and fiscal tools to empower these master plans. Taxation, transfer duties, construction, sub-division and utilisation orders could now also be used to shape planning. Private and voluntary sector partnerships were welcomed to participate in planning and urban operations under a more transparent legislative framework. The progress that the City Statute set in motion in empowering cities in the last decade and encouraging future thinking has set the standard in Latin America and across other developing economies.⁹³

Brazil's move towards a more focused national urban policy accelerated under President Inácio Lula da Silva's administration. In 2003 a Ministry for Cities (MoC) was established, largely a result of the campaigning of the NFUR. The MoC was divided into four secretariats, which remain today: housing, environmental sanitation, public transport and mobility, and land and urban programmes. Each is supervised by an executive secretariat with a remit to build capacity in the municipalities.⁹⁴

Under the Lula administration, the 2007 growth plan entitled *Plano de Aceleração do Crescimento* (PAC) increased investment into urban logistics, energy, social services and housing. This cycle of investment continues, and has had a clear impact in reducing poverty in the larger cities and extending government service provision. It has also raised ambitions among Brazil's medium size growing cities to avoid the problems experienced by its larger counterparts and become more past sustainable and competitive areas.

Brazil's urban agenda has become much more focused in recent years. The major challenges are, first, to ensure that its largest cities maintain and improve service standards as their infrastructure footprints and densities continue to grow. There are also concerns to ensure that congestion is tackled and connectivity investments match economic agglomeration demand, and to overcome financial and regulatory constraints to close the housing deficit.

"We are now looking at cities systemically. When we talk about urban reform, we are referring to three things: Urban mobility - mass public transportation - sanitation and housing. These three things are the structure of urban life in any city in the world."

Dilma Rousseff, Feb 20th 2014⁹⁵

⁹² Cities Alliance and Ministério das Cidades (2010). *The City Statute of Brazil, A Commentary*. Available at <www.ifrc.org/docs/idrl/945EN.pdf>. Accessed 2014 Apr 2.

⁹³ Wilson Center (2009). *Democracy and The City: Assessing Urban Policy in Brazil*. Available at <www.wilsoncenter.org/sites/default/files/CUSP_Brazil_web.pdf>. Accessed 2014 Apr 2.

⁹⁴ Fernandes, E. (2007). *Implementing the urban reform agenda in Brazil*. *Environment and Urbanization* 2007 (19:177).

⁹⁵ Ministério das Cidades (2014b). 'Ministro Aguinaldo Ribeiro diz que os investimentos em mobilidade urbana retomaram o planejamento urbano'. Feb 20. Available at <www.cidades.gov.br/index.php/o-ministerio/noticias/4709-ministro-aguinaldo-ribeiro-diz-que-os-investimentos-em-mobilidade-urbana-retomaram-o-planejamento-urbano-.html>. Accessed 2014 Apr 2.

vi. India: a new national framework for cities

In 2010 the McKinsey Global Institute completed a two-year study into India's urban development, entitled *'India's urban awakening: Building inclusive cities, sustaining economic growth'*. The study argues that cities are critical to India's future economic growth – they are likely to house 40% of the population by 2030, will account for more than 70% of the country's GDP and 68 cities will have a population of more than 1 million people (compared to 42 in 2010).⁹⁶

The report identifies serious challenges in India's contemporary approach to urbanisation, suggesting that it is particularly deficient in the areas of:

- Water supply and sewerage treatment
- Public transport
- Vehicle congestion
- Parks and open space
- Formal housing

MGI argue that the current approach to urbanisation could lead to India's cities suffering from urban gridlock and decline.

Nonetheless, the report identifies that urbanisation holds massive potential for India, and opportunities are visible. In order to make the most of the opportunities it has available, the report estimates that India needs to invest \$1.2tn in capital expenditure in its cities over the next 20 years, a figure which is almost eight times the level of spending in 2010. MGI recommend that India taps into five sources of funding used in cities around the world—monetised land assets, higher property taxes, user charges that reflect costs, debt and public-private partnerships, and formula-based government funding. By doing so, it concludes that its largest cities could generate as much as 80% of the funding they require from internal sources.⁹⁷

⁹⁶ From India's Urban Awakening, available at: www.mckinsey.com/insights/urbanization/urban_awakening_in_india

⁹⁷ www.mckinsey.com/insights/urbanization/urban_awakening_in_india

MGI argues that India can ‘turn its cities around’ within a decade by focusing on five key elements:

Figure 12: MGI’s recommended operating model for Indian cities⁹⁸

India’s urban operating model should focus on five elements



SOURCE: McKinsey Global Institute analysis

In May 2014, India’s Bharatiya Janata Party (BJP) led by Narendra Modi, swept to power in the country’s general elections, defeating the incumbent Congress party, primarily through promising a focus on economic growth.⁹⁹ There are some early indications that the new government are addressing (at least some of) the five elements outlined by MGI. The government has announced plans in its inaugural budget to build 100 new smart cities across the country, which will feature the latest technology and infrastructure, integrated waste management and advanced transport systems.¹⁰⁰ The smart cities will be developed as satellite towns of larger cities and by modernising existing mid-sized cities.¹⁰¹

The smart cities are to be partially **funded** by central government, which has set aside Rs 7060 crore (Rs 70.6 Billion) in the budget 2014-15 for the project¹⁰² but the government is also holding discussions with states, local bodies, and foreign countries which have shown interest in funding urban development.

Infrastructure development will also be a priority for the new government according to the new Urban Development Minister who recently announced “*My ministry will reach out to every state as urban infrastructure development is one of our top priorities to improve the quality of live and regulate growth of metros and decongest cities*”.¹⁰³

In terms of the **governance** limb of MGI’s operating model – central government has been clear of the important role that states will play in the future of the nation’s cities. In a

⁹⁸ From India’s Urban Awakening, available at: www.mckinsey.com/insights/urbanization/urban_awakening_in_india ibid

⁹⁹ www.bbc.co.uk/news/world-asia-india-29026072

¹⁰⁰ http://articles.economictimes.indiatimes.com/2014-05-30/news/50211247_1_nda-government-infrastructure-development-venkaiah-naidu

¹⁰¹ www.thehindu.com/business/budget/rs-7060-crore-for-100-smart-cities/article6198022.ece

¹⁰² www.thehindu.com/business/budget/rs-7060-crore-for-100-smart-cities/article6198022.ece ibid

¹⁰³ http://articles.economictimes.indiatimes.com/2014-05-30/news/50211247_1_nda-government-infrastructure-development-venkaiah-naidu

recent announcement, Urban Development Minister, Venkaiah Naidu, said “*it is the urban local bodies and state governments which will have a vital role in the execution of the [smart city] project. We have to take the state governments on board.*” The Indian central government is meeting with all state governments on 12 September 2014 to decide on the broad framework of the smart city project, as well as to discuss urban infrastructure development and housing.¹⁰⁴

vii. Sri Lanka: metro cities to 2030

After its protracted civil war, Sri Lanka is now committed to becoming an upper middle-income gateway country by 2016. The nation’s *Urban Vision* is defined in the government’s new development policy framework – the *Mahinda Chintana*. This Vision aims to develop a system of **competitive, environmentally sustainable, well-linked cities clustered in five metro regions and nine metro cities up to 2030**.¹⁰⁵

Consistent productivity growth in the Colombo Metropolitan Region (CMR), in the west of the country, is the centrepiece of the plan. The CMR needs to become more competitive with other Asian cities, especially in IT, financial services and other business services fields. For the fast-growing urban centres outside the capital (including Kandy and Jaffna), the challenge is to develop long-term strategies with broad stakeholder buy-in. The government plans to boost connectivity by building a motorway network to link most cities.

The national policy is distinctive in that it **recognises the limitations around the functions, capacity, and resources of Urban Local Authorities** (ULA) which delay the implementation of urban plans and create inefficiencies in service provision. Sectoral plans are currently not integrated with the urban plans. Responsibilities for providing urban services are fragmented among central government agencies and two parallel systems of government (devolved and deconcentrated). The Vision calls for institutional and policy reforms to leverage the economic benefits of improved connectivity and urban infrastructure.

As such the major priorities looking forward are:

- preventing the rise of informal settlements on the periphery of cities
- removing the constraints on the supply of land and housing finance
- well-targeted housing assistance and livelihood programmes
- re-positioning local authorities as competent and accountable service providers with proper financial and human resources.

Create stronger incentives to stimulate efficient and sustainable land use and property development.

The UN has recommended that addressing Sri Lanka’s institutional and policy constraints in planning, finance, city management, and land and housing development requires a multipronged strategy based on four pillars:

¹⁰⁴ www.newindianexpress.com/nation/Smart-City-Project-Govt-Calls-Meeting-With-States-on-Sept.12/2014/09/04/article2414491.ece

¹⁰⁵ www.unhabitat.lk/downloads/wburbanpolicy.pdf

Pillar I: Strategic and integrated national, regional, and urban planning

- a national- and provincial-level vision and strategy for Sri Lanka's cities to support economic specialisation and complementarities among regions and urban areas.
- reforms to realign planning functions at the regional and urban levels by strengthening the role of the provinces and delegating urban planning functions to ULAs as their capacities increase.

Pillar II: Sustainable financing and improvements of regional and urban infrastructure

- financing strategy and plan for catalytic regional investments to improve connectivity and regional competitiveness,
- expand the menu of financing instruments with a focus on leveraging private capital and expertise in partnership with the public sector.
- land-based finance to share the gains in land values created by public infrastructure investments via a centrally sponsored scheme for infrastructure finance to mobilise private capital for projects with high economic returns.

Pillar III: New tools for performance-based city management and finance

- integrated capacity-building of ULAs to build the basic functions of city management
- incentives to make ULAs relevant actors for urban development and to strengthen accountability for local service delivery.
- performance-based model of municipal finance
- better institutional co-ordination mechanisms for more efficient provision of metropolitan and urban services.

Pillar IV: Efficient and sustainable land and housing development for improved city liveability

- Market-based land disposal and conversion tools such as land pooling and land banks to stimulate efficient land development.¹⁰⁶

viii. Myanmar

McKinsey Global Institute was asked in 2013 to carry out a study of Myanmar's economy up to 2030. In the resultant report, *Myanmar's Moment: Unique Opportunities, Major Challenges* the consultancy has argued that urban planning is critical to meeting the (achievable) challenge of quadrupling national GDP to \$200bn annually. Myanmar has three large cities – Yangon, Mandalay and Naypyidaw – and a handful of smaller cities. McKinsey Global Institute predicts that, although most of Myanmar's population live in rural areas at present, the country's urban population could expand to 18 million by 2030, more than double of current numbers.¹⁰⁷

The study has confirmed that Yangon must compete with regional counterparts to attract investment and talent. In order to be competitive in terms of infrastructure, regulation and human resources, the study sets out some key priorities:

¹⁰⁶ www.unhabitat.lk/downloads/wburbanpolicy.pdf

¹⁰⁷ www.mckinsey.com/insights/asia-pacific/myanmars_moment

- **Planning proactively for urban expansion, putting in place a modern planning system;**
 - Shrinking the plethora of different ministries and government bodies involved in urban planning, often through their ownership of land and buildings.
- **Investing in infrastructure**
 - \$150 bn is needed for new urban infrastructure
 - 10,000 kilometres of new roads, 113 million square feet of residential buildings, 27 million square feet of commercial floor space and 140 hospitals – in the next 17 years.
 - Facilitating investments is key
- **Considering governance**
 - Ensuring that government authority is rationalised and able to make decisions as effectively and efficiently as possible.
 - New thinking on the governance structure of the larger cities - constitutional or other changes so that local bodies have the authority and money required to manage urban growth properly. MGI suggest that the elected mayors model could work well in Myanmar.¹⁰⁸

ix. Australian cities: the effect of changing political leadership on future city thinking

Australia is one of the most urbanised nations in the world.¹⁰⁹ 75% of its population live in the country's 18 largest cities, which have populations of over 100,000.¹¹⁰ A report by the Australian Treasury in 2010 predicted that the country's population will grow to approximately 36 million by 2050 – an increase of around 13 million. Most of this population growth is expected to take place in the country's four largest cities, Sydney, Melbourne, Brisbane and Perth.¹¹¹ This population growth presents major challenges for the national government, not least in terms of providing affordable and accessible housing - there will be a need for 3.2 million additional homes to meet underlying demand.¹¹² Other long-term challenges facing Australia's cities include: the need to improve productivity growth; create safe community spaces; meet the needs of an ageing population; ensure an inclusive and cohesive society; and address the implications of climate change.¹¹³

In 2011, the Australian Ministry for Infrastructure and Transport released a major publication on the future of cities entitled ***Our Cities, Our Future—A National Urban Policy for a productive, sustainable and liveable future***. This document represents the first time that the Australian Government has sought to outline its overarching goals for the nation's cities and to indicate how it intends to play a role in making them more productive, sustainable and liveable. The publication also forms a critical component of the Australian Government's wider *Sustainable Australia* framework which seeks to

¹⁰⁸ www.mckinsey.com/insights/asia-pacific/myanmars_moment ibid

¹⁰⁹ Our Cities, Our Future Report available at: www.infrastructure.gov.au/infrastructure/pab/files/Our_Cities_National_Urban_Policy_Paper_2011.pdf

¹¹⁰ State of Australian Cities 2010 Report Needs a source

¹¹¹ www.infrastructure.gov.au/infrastructure/pab/files/NUPBP_Complete.pdf

¹¹² www.infrastructure.gov.au/infrastructure/pab/files/NUPBP_Complete.pdf ibid

¹¹³ Our Cities, Our Future Report available at: www.infrastructure.gov.au/infrastructure/pab/files/Our_Cities_National_Urban_Policy_Paper_2011.pdf

ensure that Australia remains ‘a prosperous, fair and environmentally sustainable society’.¹¹⁴

Our Cities, Our Future is a long-term framework which seeks to guide policy development and public and private investment in cities by articulating a set of goals, objectives and principles. Three key goals for the future are outlined:

- **Productivity:** “To harness the productivity of Australia’s people and industry, by better managing our use of labour, creativity and knowledge, land and infrastructure.”
- **Sustainability:** “To advance the sustainability of Australia’s natural and built environment, including through better resource and risk management.”
- **Liveability:** “To enhance the liveability of our cities by promoting better urban design, planning and affordable access to recreational, cultural and community facilities.”

The interaction of these goals with a defined set of objectives and principles is shown in Figure 13.

Figure 13: National urban policy goals, objectives and principles¹¹⁵



The National Urban Policy professed to commit the Australian Government to its outlined principles and objectives for all future activities and investments which impact on major cities. For example, infrastructural investments would be made in accordance with the

¹¹⁴ ibid

¹¹⁵ ibid

stated plans and principles. However, the policy was developed by the Labor government of 2007 -2013 not the current coalition government which came to power in 2013. As a result, major changes are expected, and already being realised, in the government's approach to cities. In particular, the Major Cities Unit - which provided advice on developing Australia's 18 biggest cities - has recently been disbanded.¹¹⁶ As such Australia presents an example of how political (dis) continuity can affect the progress of national-led approaches.

The new government supports some future city ideas which are not set out in the National Urban Policy. For example, the incumbent Environment Minister has expressed support for a National Liveability Index (which would frame specific liveability targets for each city) and for integrated planning commissions for each capital city. These commissions would involve all three tiers of government as well as planning, social and business sectors, and would develop 30-year plans for the country's biggest cities.¹¹⁷

3.2 Global studies: UN Habitat, Oxford, Mckinsey Global Institute, PwC, UK DfID, UNICEF, EU Commission, and others

Supranational organisations are also considering the future of cities, either at the regional scale, or by studying different national systems of cities and drawing general or unifying conclusions.

i. World Bank urbanisation reviews

The World Bank Urbanisation Reviews are major analytical projects that seek to better understand the economic intricacies of mass urbanisation and steer evidence-based policymaking. The Reviews have their origin in the World Bank's World Development Report 2009 which identified for the first time the concept of 'systems of cities' – the idea that all cities exist in an interdependent national or continental system, whose size and relationships determine each city's functions, specialisations and opportunities for manoeuvre.¹¹⁸

The Reviews provide in-depth economic analysis of a range of target nations and aim to give policymakers as full a picture as possible of the effects of urbanisation and a rigorous understanding of the policy decisions which can obtain the best possible results from the process.¹¹⁹ Several fundamental principles, which are largely drawn from the World Development Report 2009, underpin the work:

- Countries need to urbanise to achieve middle-income status
- Countries need at least one global city to achieve high-income status.
- Urbanisation is a powerful force for economic growth and poverty reduction - higher densities, shorter distances and lower divisions are the building blocks for economic success.
- Urbanisation has almost always been accompanied by deprivation, pollution and congestion (but these issues can be solved).

¹¹⁶ www.news.com.au/national/commonwealth-agencies-to-be-cut-by-abbott-government/story-fncynjr2-1226724733088

¹¹⁷ Achieving the 30 and 50 Year Plan for our Cities: Urban Policy and Research Vol 31 Issue 3 p255-256 (2013)

Available at: www.tandfonline.com/doi/full/10.1080/Ujp3B2Tk-gc#.VAb-mvldXCk

¹¹⁸ Clark and Clark (2014) Nations and the Wealth of Cities: A New Phase in Public Policy.

¹¹⁹ www.citiesalliance.org/ca_projects/detail/25008

Urbanisation Reviews have been undertaken to date in China, India, Vietnam, Sri Lanka, Indonesia, Korea, Colombia, Brazil, Uganda, Nigeria, Ghana, Morocco, Tunisia, Jordan, Georgia and Turkey.¹²⁰

The Reviews assess urbanisation across five areas: economy, welfare, demography, the physical environment and administration. Examples of findings and recommendations include:

- In **Colombia**, the Urbanisation Review found that high commodity prices, improvements in macro-economic and financial management, diversification of trading partners (particularly through stronger links with China) and safe integration into international financial markets have been the main drivers for the country's recent success. The review concludes that *'the efficient management of cities and urban areas will be the key determinants of whether Colombia will be able to cash in on a potential growth dividend to reduce poverty and inequality'* and identifies Colombia's priorities as:
 - Deepening economic connectivity between the system of cities
 - Enhancing co-ordination on a regional and metropolitan scale; and
 - Fostering efficiency and innovativeness in how cities finance themselves.¹²¹
- The **Indonesian** Urbanisation Review finds that if Indonesia is to leverage urbanisation for economic growth, a core area of focus and priority will have to be *'the development of mechanisms that optimize and coordinate development at a scale more complex and much larger than a city: rather, at the scale of metropolitan areas that may include one or more cities'*. The report also provides recommendations for cities of different sizes: whilst the country's largest cities, Jakarta and Surabaya, require further investment, the national government should also promote growth in the rapidly agglomerating metropolitan and mediumsized cities. These cities need higher quality and more expensive infrastructure, particularly infrastructure that supports connectivity with major centres and ports. Within small cities the focus should be on the delivery of basic services.¹²²
- The Urbanisation Review in **India** identifies three priority areas for India's policymakers:
 - *Land Policy*. In order to enhance productivity, policymakers should invest in the institutional and information foundations to enable land and housing markets to function efficiently, while deregulating the intensity of land use in urban areas. Better co-ordination between land use and infrastructure planning will be necessary to achieve this goal.
 - *Infrastructure Services*. Rationalising 'the rules of the game' for infrastructure service delivery, so that service providers are incentivised to reach out to poorer neighbourhoods and peripheral areas.

¹²⁰ www.gib-foundation.org/content/uploads/2013/01/NonAsciiFileName011.pdf

¹²¹ Colombia Urbanization Review, available at: <https://openknowledge.worldbank.org/handle/10986/11955>

¹²² http://www.urbanknowledge.org/ur/docs/Indonesia_Report.pdf

- *Connectivity Improvements*. Invest in improving connectivity between metropolitan cores and their peripheries, as these are the areas that will attract the bulk of people and businesses over the medium term.¹²³

Overall, the initial pilot set of reviews identified that many middle-income countries must focus on land use planning, connectivity, inter-jurisdictional co-ordination and the attraction of infrastructure finance in order to create an efficient and productive urban system that will propel them into the higher income bracket.¹²⁴ These findings are detailed in a flagship report entitled ‘*Planning, Connecting and Financing Cities – Now*’ which, using insights from the Urbanisation Reviews, seeks to provide a framework for city leaders to think through the complex challenges that they need to resolve in order to prepare for and manage urbanisation.¹²⁵ The urbanisation ‘Rules’ that it recommends are detailed in Figure 14 below.

Figure 14: World Bank’s framework of rules for urbanisation arising from urbanisation reviews¹²⁶



Note: This framework draws on World Bank (2012a) and the findings from various country pilots under the Urbanisation Reviews.
Source: Urbanisation Review team.

Future Urbanisation Reviews are planned for South Africa, Senegal, Lebanon, Mexico and the Philippines.¹²⁷

ii. UNICEF urban data studies

Since 2010, UNICEF’s Urban Planning & Programming team has worked to give more visibility to the urban poor and to spotlight people-driven solutions that can be scaled up by governments. UNICEF is focusing on improving data and policy that can draw

¹²³ www.scribd.com/doc/126733272/Urbanization-beyond-Municipal-Boundaries

¹²⁴ <https://openknowledge.worldbank.org/handle/10986/11955>

¹²⁵ www.urbanknowledge.org/ur.html

¹²⁶ www.urbanknowledge.org/ur/docs/UR_Overview.pdf

¹²⁷ www.urbanknowledge.org/ur.html and www.gib-foundation.org/content/uploads/2013/01/NonAsciiFileName011.pdf

attention to urban poverty.¹²⁸ Improved data has enabled the production of statistics and figures such as that shown at Figure 15.

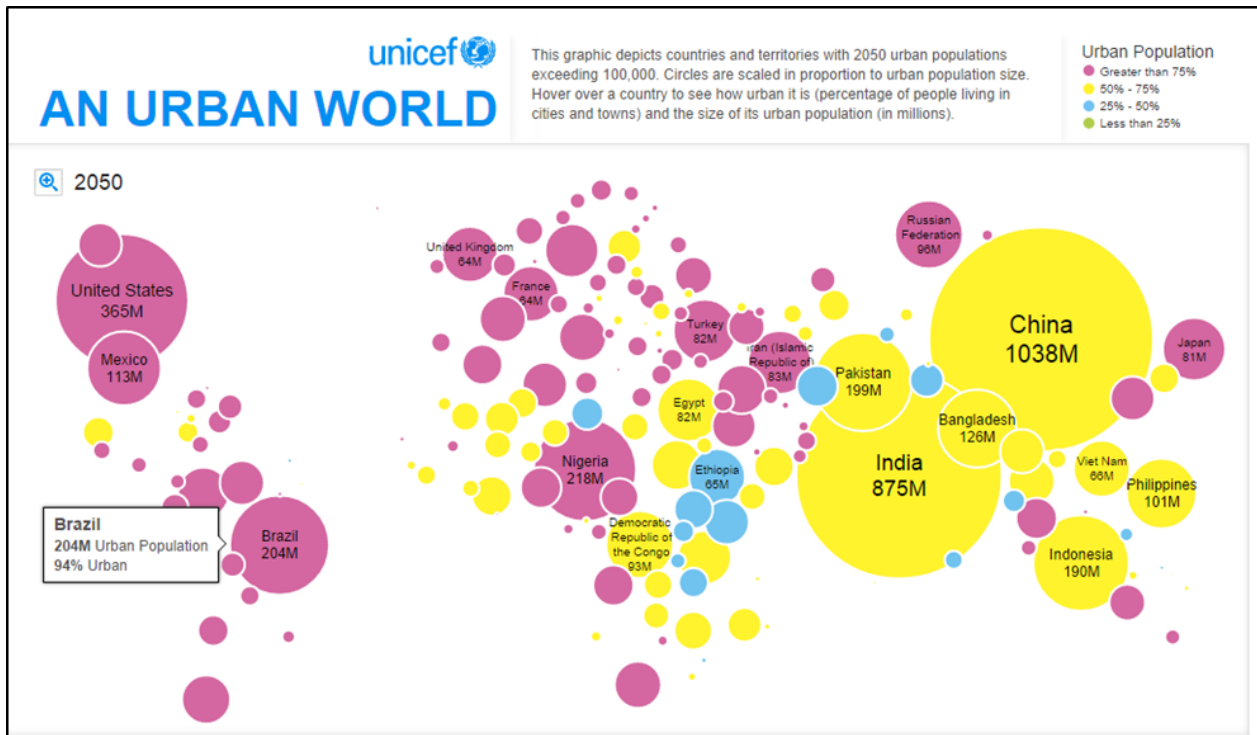
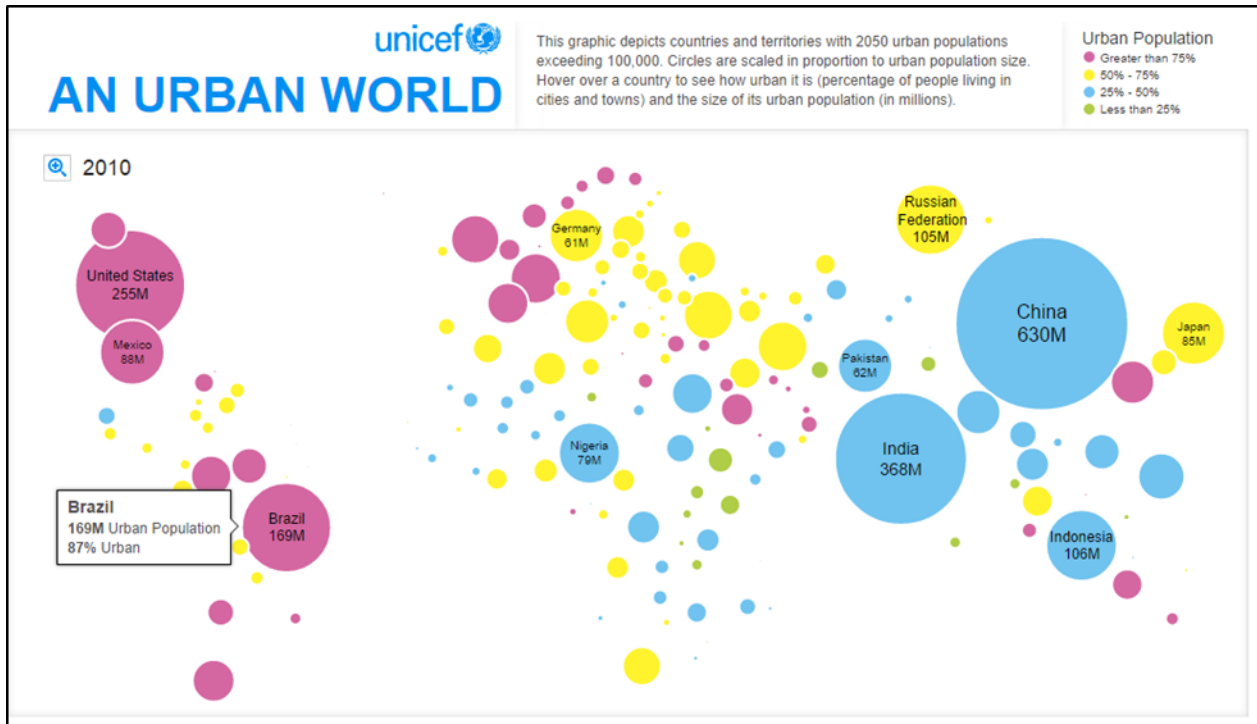
Data oriented studies/workstreams to date have included:

- *Latin America and the Caribbean*: a project which uses census data for households in Mexico City, Buenos Aires, Rio de Janeiro, Sao Paolo, and Santiago de Chile, and measured three characteristics in each household: whether the income was above or below the national poverty line; the average number of years of schooling of adult members; and the condition of the dwelling itself. This survey was intended to more accurately gauge the number of children living in urban slums and examine intra-urban disparities.
- *Accra, Ghana*: A UNICEF Multiple Indicator Cluster Survey (MICS) focused on five densely populated and underprivileged suburbs, and resulted in a better understanding of the patterns of disadvantage.
- *Manila, Philippines*: The “Safe and Friendly Cities for All” programme, which UNICEF, UN Women and UN Habitat launched in 2011, is helping to make sure that informal settlers who live in slums in Mandaluyong, Pasay and Quezon City in Metro Manila are counted, recognised and surveyed to determine what aid they need.¹²⁹

¹²⁸ www.worldwewant2015.org/node/298204

¹²⁹ www.worldwewant2015.org/node/298204 ibid

Figure 15: UNICEF’S urban world maps – showing urban populations in 2010 and 2050 (projected)¹³⁰



¹³⁰ www.unicef.org/sowc2012/urbanmap/

iii. OECD territorial reviews

In operation since 2001, OECD territorial reviews offer unprecedentedly thorough diagnosis and prognosis for a variety of metropolitan areas in OECD countries. Reviews are carried out at the national, regional and metropolitan levels. Countries, regions and cities reviewed to date have been:

Year	Countries Reviewed	Cities/Metropolitan Areas Reviewed	Regions Reviewed
2014	Netherlands	-	-
2013	Ukraine; Brazil	Antofagasta	Puebla-Tlaxcala, Mexico
2012	-	The Chicago Metropolitan Area	Skåne, Sweden; Chihuahua, Mexico; Småland-Blekinge, Sweden
2011	Slovenia; Switzerland	The Gauteng City Region	NORA Region (Faroe Islands, Greenland, Iceland and Coastal Norway)
2010	Sweden	Venice	Guangdong, China
2009	Chile	Toronto; Copenhagen	Pan Yellow Sea Region
2008	Poland; Portugal	Cape Town; Istanbul	-
2007	Luxembourg; Norway	Madrid	Yucatan, Mexico; Randstad Holland
2006	France	Newcastle; Milan; Stockholm	The Mesoamerican Region
2005	Finland; Japan	Seoul; Busan	-
2004	Czech Republic	Mexico City; Athens; Montreal	-
2003	Mexico	Melbourne Metropolitan Region; Helsinki	Vienna-Bratislava (Austria, Slovak Republic); Oresund Region
2002	Canada; Switzerland	Siena	Moravska Trebova-Jevicko, Czech Republic; Champagne-Ardenne, France; Tzoumerka, Greece.
2001	Korea; Hungary; Italy	Bergamo; The Valencian Central Districts	Teruel, Spain;

OECD TR recommendations for cities, which – as a result of the membership of the organisation are largely cities, based in upper income nations - typically involve:

- Developing a sustainable competitiveness agenda to enhance productivity, including a focus on innovation;
- Recognising the importance of cultural diversity;
- Infrastructure policies to encourage mobility and modal integration
- Well thought out green policies
- Greater openness and willingness to learn and engage with external actors
- Improving the current governance framework by
 - intensifying strategic planning at the metropolitan level
 - unifying the fragmentation of leadership across political boundaries
 - clarification of competencies and fiscal responsibilities.

In promising emerging metropolitan areas, such as Mexico City, OECD Reviews argue that future growth is premised on headquarters, educational institutions, Foreign Direct Investment and improved cultural resources. Typical recommendations include:

- strengthening levels of human capital;

- improved flexibility in the regional labour market;
- overhauling infrastructure;
- resolving widespread poverty;
- more cross-border collaboration to improve regional transport infrastructure; and
- moving governance from voluntary co-operation to more integrated and enforced implementation

OECD work emphasises that cities should be considered in a more integrated way, and on a national level, via a national urban strategy that can achieve coherence across different sectoral policies.

The OECD's principles for regional development for the future include:

- A broad development strategy that covers a wide range of factors that affect the performance of local firms;
- Focus on endogenous assets, rather than on external investments and transfers;
- Focus on opportunity rather than disadvantage;
- Negotiated governance involving regional and local government, and to a lesser extent, national government¹³¹

iv. **World Economic Forum: Urban Development Initiative and Global Agenda Council on Competitiveness**

The WEF's 2-3 year Future of Urban Development initiative is leveraging the leadership platform of the Forum to provide a setting for mayors, ministers, the private sector, and experts to jointly think through the major urban challenges of the 21st century. It supports the collaborative proposal of new models for infrastructure, urban design, mobility and energy.¹³²

Within the initiative, a number of Steering and Advisory Boards serve as partners to Partner Cities, working hand-in-hand with mayors and senior officials to strategise solutions and identify interventions that can apply globally. Active cities include Tianjin, Moscow and Bangkok.

The WEF has also created a Global Agenda Council on Competitiveness, which in 2012 identified cities as a key area for further study, given the role they play in stimulating national competitiveness. The outcome of this further study is a report, published in August 2014, entitled 'The Competitiveness of Cities'. The report applies a four-part taxonomy of drivers of city competitiveness to 26 cities in 'mini' case study form and seven further cities (Dubai, Singapore, Detroit, Bilbao, Monterrey, Ningbo and Surat) in full case studies. The four drivers of city competitiveness outlined in the report are:

- Institutions
- Policies and regulation of the business environment

¹³¹ *Trends in urbanization and urban policies in OECD Countries: What Lessons for China?* (2010): available at: http://books.google.co.uk/books?id=kqNKpU7yfOkC&dq=oeed+on+endogenous+assets,+rather+than+on+external+investments+and+transfers%3B+%E2%80%A2%09Focus+on+opportunity+rather+than+disadvantage%3B&source=gbs_navlinks_s

¹³² www3.weforum.org/docs/IP/2012/IU/WEF_IU_Future_Urban_Dev_2Pager.pdf

- "Hard connectivity"(core physical infrastructure), and
- "Soft connectivity" (the city's social capital).

Following the case studies, conclusions are made in relation to each taxonomic driver, leading to four overall observations on city competitiveness:

- Successful cities are flexible and adapt quickly to changing conditions.
- The taxonomy of drivers is one of interactive parts, not of elements in isolation. The important factor is the interaction of all four parts.
- Cities have big differences in their natural and policy endowments, and hence in their conditions for reform. The right mix of priorities must be tailored to specific conditions and stages of city development – different cities will have different priorities.
- Reforms at the municipal level are usually more feasible than at the national level, and urbanisation trends enlarge these possibilities. Cities should 'grasp this opportunity, experiment with new rules and put reforms on a fast track'.¹³³

v. The European Union: Cities of Tomorrow

In 2011, the European Commission undertook a 'reflection' on the future of the Union's cities, which formed part of the Commission's wider discussions on the future of regional policy. The reflection programme involved academic experts and representatives from cities and European associations who considered: the shared challenges of European cities (today and in the future), visions and models of future cities and governance issues for the cities of tomorrow.

The end-goal of the reflection process was to be able to identify good practices and policies which could serve as inspiration at a local, regional, national or European level.¹³⁴

The process culminated in the production of a report entitled *Cities of Tomorrow: Challenges, Visions, Ways Forward*. The report advances familiar EU values for cities, envisioning the European city of tomorrow as a democratic and diverse city with high levels of social cohesion, strong environmental credentials and an engine of economic growth. It argues that cities have to adopt a more holistic model of sustainable urban development, and must develop governance systems which are capable of combining formal government structures with flexible informal governance structures, building shared visions, and ensuring coherent spatial development.¹³⁵

vi. UK Department for International Development, Future Proofing Cities

The UK Department for International Development (DfID) has created a report, *Future Proofing Cities*, in collaboration with University College London and Atkins. It deals with the urgent risks and opportunities that emerge with the rapid urbanisation of cities in developing countries and the juxtaposition between the need for rapid growth and poverty reduction whilst avoiding the pitfalls of unmanaged urban growth.

'Future proofing' as described in the report focuses on the mitigation of climate change, and responding to new environmental and social challenges in a way that catalyses

¹³³ www3.weforum.org/docs/GAC/2014/WEF_GAC_CompetitivenessOfCities_Report_2014.pdf

¹³⁴ http://ec.europa.eu/regional_policy/archive/conferences/citiesoftomorrow/index_en.cfm

¹³⁵ http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/citiesoftomorrow/citiesoftomorrow_summary_en.pdf

urban development over the long term. As such it overlaps considerably with the concept and requirements of 'resilient' cities espoused by other organisations.

The *Future Proofing Cities* report conducts risk assessments of 129 cities in the developing world and bands them into five typologies based on their most likely risks. It provides over 100 solutions and recommendations 'which can be taken now to manage... future risks'.¹³⁶ These include:

- Using multiple-benefit solutions that positively impact upon variety of factors and provide the greatest holistic return.
- Securing sources of finance that can withstand governmental or market shock and particularly utilising environmental finance avenues.
- Undertaking risk diagnostics.
- Strengthening governance and delivery systems
- Improving upon the data that underpins decision making.
- Identifying risks to investment portfolios to catalyse private investment.¹³⁷

vii. McKinsey Global Institute: the City 600

The McKinsey Global Institute has identified 600 urban centres which will generate 60% of global GDP in 2025. Its research shows that by 2025, one-third of the present-day leading developed-market cities will no longer make the top 600, and instead 136 new cities will take their place – mostly from China and India. These cities will host an enormous surge in middle-class households as well as influxes of global talent. Indeed there will be up to 1 billion new consumers in emerging market cities by 2025. Furthermore the emerging power cities will begin, according to MGI, to experience some of characteristics familiar to large developed cities – infrastructure strain, challenges around de-industrialisation, and an ageing demographic.¹³⁸

MGI explain that it is not just emerging mega-cities driving growth, but also the '**middleweight**' cities - with populations of between 150,000 and 10 million. By 2025, 13 middleweights are likely to have become mega-cities, Chicago and 12 others, mostly in China. Its Cityscope database of over 2,000 metropolitan areas explores the GDP and population projections for a record number of cities.

In 2012, a follow up report from MGI *Urban World: Cities and the Rise of the Consuming Class* has turned its attention to how cities can be solutions to the stresses of economic and demographic change, as long as they invest strategically and ahead of time. MGI warn that without clear preparation: "*cities may lock in inefficient, costly practices that will become constraints to growth later on.*"¹³⁹

¹³⁶ www.futureproofingcities.com/

¹³⁷ http://r4d.dfid.gov.uk/pdf/outputs/urbanisation/FPC_Report_FINAL.pdf

¹³⁸ www.mckinsey.com/insights/urbanization/urban_world

¹³⁹ MGI (2012), 'Urban World: Cities and the rise of the consuming class', available at www.mckinsey.com

MGI particularly focuses on the urgent role of buildings, infrastructure and transport in allowing emerging cities to become middle-income success stories. It has established that

- By 2025, cities need to have built floor space equivalent to 85% of all existing residential and commercial building stock, requiring investment of \$80tn
- Capacity of ports will need to more than double to meet consumer demand, requiring \$200bn of investment
- Water demand will surge by 40%, requiring investment of \$500bn by 2025.

Cities are advised to:

- plan ahead for sufficient housing and effective transport and ensure sufficient finance for operational and capital costs for such infrastructure.
- avoid congestion, pollution and public service meltdown or risk a lack of competitiveness and ultimately growth.
- Carry out a full and realistic SWOT analysis on the city as the basis for future strategies.
- Ensure connectivity to new geographic sources of growth and power.
- Engage with the private sector to develop expertise in urban problem-solving.¹⁴⁰

viii. Oxford Programme for the Future of Cities

The Oxford Programme for the Future of Cities aims towards rethinking the city as a flexible and dynamic space that better responds to evolving circumstances. The programme seeks to identify, in a range of contexts, a number of questions around city flexibility including:

- Who benefits from a flexible city?
- How can we better understand ideas of governance, livelihoods and development?
- How can flexibility be applied practically given the inherent competition of interest within a city?¹⁴¹

The work at Oxford seeks to overcome the factional and inefficient character of urban learning, as policy ideas need to be urgently shared and learnt. The Emergent Governance Research line describes the challenges faced to implement solutions given existing institutional reach and jurisdiction of conventional forms of government. Its Everyday Urban Life research threads also explores challenges of inequality and social injustice. A final research strand is the use of Infrastructure and Technology – which is addressed as a part of the city that is particularly prone to long-term lock-in as metropolitan planning and transport solutions are constructed with time horizons in the decades and often centuries. This research explores how to avoid destructive urban path dependencies.¹⁴²

¹⁴⁰ *ibid*

¹⁴¹ www.futureofcities.ox.ac.uk/about-us

¹⁴² www.futureofcities.ox.ac.uk/research

3.3 Sub-national and metropolitan ‘future of city’ studies and future focused plans

Long-term and future oriented strategic planning has long been used to establish a range of principles and a focus for infrastructural investment to guide the location of urban development. In the earlier state-led period, the focus of strategic planning was on the need for a comprehensive ‘blueprint’ approach. More recently, more liberal perspectives in governance had challenged the role of strategic planning frameworks in favour of market facilitation and project realisation. Since 2000, however, there has been a rebirth of interest in approaches to collaborative strategic planning. These have emphasised the creation of integrated and cohesive frameworks amongst major stakeholders. A number of cities have been at the forefront of longer term planning, that takes into account infrastructure and business needs:

i. London

The **London Infrastructure Plan 2050** was launched by the Mayor of London in July 2014 and is the city’s first attempt to set out the full range of infrastructure requirements for the UK’s capital over the next 50 years.

The report explains that by 2050, London is expected to be home to more than 11 million people placing a series of challenges upon its infrastructure, including public transport (where demand is expected to increase by 50% by 2050), energy (which will see a 20% demand increase) and water (21% demand increase by 2040). The report also anticipates a need for at least 600 new schools and colleges, 50,000 new homes *per year*, and additional airport capacity.

The plan outlines that infrastructure is critical to London’s future global competitiveness: arguing that rising prosperity for all depends on increased productivity, which itself relies on good infrastructure. The plan sets out detailed recommendations for how London’s infrastructure challenges might be met, which include:

- Development of Crossrail 2 and possibly further Crossrail projects.
- Doubling of the capacity on the capital’s rail network.
- A series of new river crossings
- An inner orbital road tunnel.
- A new four runway hub airport to be located in the Thames estuary, to the east of the capital.
- An extra 9000ha of accessible green space and more spaces for cycling and walking.
- Improving rail links to other urban areas in the Southeast region

The plan argues that London should be able to accommodate its growth, at least until 2025, within existing boundaries, and cites Arup’s estimate of £1.3tn as the amount which will need to be invested in the city’s infrastructure between 2014 and 2050. The plan argues that fiscal devolution is vital if the city is to meet these costs, as increased powers at the local level would give the city greater financial control over its transport, housing and other investments, and provide a base against which to borrow prudently. Devolution would also allow public sector land and other assets to be utilised more intensively and efficiently. The plan makes clear that there is plenty of scope for collaboration on major infrastructure projects with the private sector.

A consultation on the London Infrastructure Plan 2050 will run for three months and the Mayor is expected to publish a final report in early 2015.¹⁴³

ii. Barcelona

30 years on from its first metropolitan plan, the Barcelona Metropolitan Region (AMB) updated its strategic plan in 2011. *Strategic Metropolitan Plan for Barcelona – Vision 2020* includes plans to protect green space, a move from mixed traffic to segregated traffic, from a radial transportation system to a more balanced network, and an increase in secondary road networks and public transportation.¹⁴⁴

The vision of the plan is that:

“By 2020, as a global metropolis and capital of Catalonia, the AMB will have reinforced relationships with the emerging cities of the world and the city capital of the Mediterranean. It will exercise economic and social leadership in line with its values and competitiveness factors”¹⁴⁵

Barcelona is envisioned as the gateway to the south of Europe and therefore the main logistics hub of the Euro-Mediterranean zone.

In order to achieve its 2020 Vision, Barcelona is focused on promoting: the stimulus of new clusters and new transversal growth-driving sectors on a world scale; the creation of new companies and better trained and educated staff; and the revitalisation and updating of traditional industrial capital and local economies of agglomeration.¹⁴⁶

iii. Sydney

The Committee for Sydney is an independent leadership group which acts as a ‘champion for the whole of Sydney’. Its members include major companies, universities, not for profit organisations, local governments and key cultural, sporting and marketing bodies, all of whom share a passion for Sydney and the role it plays as Australia’s global city.¹⁴⁷ In 2014, the Committee set up a taskforce to campaign for changes to the city and to draft a **Sydney 2054** strategy collaboratively with government. The strategy aims to overcome the challenges of the city’s dispersed metropolitan government and to enhance co-ordination across the city’s numerous local councils, bringing together the west and east of Sydney in a ‘One Sydney’ approach. The Committee is also welcoming input from citizens and from young leaders (through a Sydney’s Future Leaders sounding board).

Sydney 2054, although still in formation, will integrate a strategy for jobs, liveability and urban development, transport and housing connectivity, productivity, social participation, governance and infrastructure investment. Particular focuses will be:

- Improving liveability;
- Fixing the city’s urban sprawl;

¹⁴³ www.london.gov.uk/media/mayor-press-releases/2014/07/mayor-of-london-issues-stark-wake-up-call-on-capital-s

¹⁴⁴ Regional Studies Blog (2011), www.thersablog.com/2011/05/barcelona-metropolitan-plan.html

¹⁴⁵ www.pemb.cat/wp-content/uploads/2011/07/PEMB-2020-angles-WEB.pdf

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¹⁴⁷ www.sydney.org.au/what-makes-us-different

- Making housing more affordable, and bringing jobs closer to citizens' homes;
- Improving inequality and social inclusion.

On present trends, Melbourne will overtake Sydney to become Australia's number one city by 2053. Therefore, the Committee have emphasised that the strategy will *not* be 'more of the same but bigger'. Instead it will look to drive innovation in new sectors, and capitalise on Sydney's assets in new ways.

iv. New York City region

The **Regional Plan Association (RPA)** is the oldest urban research organisation in the United States, and prepares long-range plans and policies to guide the development of the 31-county New York-New Jersey-Connecticut metropolitan region. Its three previous plans (in 1929, 1968 and 1996) have provided a blueprint and inspiration for the region's transport, open space, infrastructure and economic development.

The RPA is in the process of developing its fourth regional plan, and has begun an expanded phase of civic engagement and knowledge-sharing from global peers. The Association's 2014 report *Fragile Success* outlined the challenges currently facing the New York region. These include fragmented regional decision making across three state governments, the economic de-coupling of the City from the wider region, stagnant real incomes for the bottom 75% of wage-earners, the development impact of technology sector growth, the need for renewal at the Port Authority, supply of housing, and the vulnerability of regional systems to climate change-related weather events. Despite the city's successes in areas such as reducing crime, improving schools, and public space, New York still risks a future of extremely unequal access to opportunity, and congestion that harms productivity and quality of life. It also has a regional governance 'fog' that is more confused than many of its international competitors. This, combined with a broken relationship with federal government, means a lack of will to deliver the infrastructure projects and systems that will make the region future-proof.¹⁴⁸

The RPA's International Advisory Committee has advised that the RPA's Fourth Plan should:

- Mobilise the full range of resources for cross-border coalitions to ensure implementation.
- Engage with citizens to make them active Plan monitors and 'co-owners', based on clear economic, inclusiveness and liveability targets.
- Build the case for increased investment in transport and infrastructure systems.
- Consider recommending a rise in transit fares, combined with 'beneficiary pays' funding techniques for a major programme of expansion, upgrades and technological improvements, delivered by a reformed Port Authority and Metropolitan Transportation Authority.

The Committee's full set of suggestions are now being considered by RPA, as input to their work ahead of the Fourth Plan's eventual launch in 2016.¹⁴⁹

¹⁴⁸ <http://issuu.com/theplanner/docs/june-2014?e=9786644/8164920>

¹⁴⁹ Ibid

v. Vancouver

Metro Vancouver 2040 is emblematic of the active steps many metropolitan governments are making to prepare for a low-energy and high-productivity future. Vancouver's regional growth strategy looks out to 2040 and provides a framework on how to accommodate the over 1 million people and 600,000 new jobs expected to be added to the city within that time frame. The Strategy, titled *Metro Vancouver 2040 – Shaping our Future* was adopted on July 29th, 2011, after being unanimously accepted by all local governments in the region.¹⁵⁰

The five goals of the Strategy address how to manage this growth in a way that enhances the liveability and sustainability of the region. The goals are:

1. **Create a Compact Urban Area**, a specific urban containment boundary, with access to a range of housing choices, and close to employment, amenities and services. Investment directed only to within the boundary.
2. **Support a Sustainable Economy**, protecting the land base and transportation systems required to nurture a healthy business sector.
3. **Protect the Environment and Respond to Climate Change Impacts**. Clean air, water and food. A connected network of habitats is maintained. Greenhouse gas emission targets met.
4. **Develop Complete Communities**. Diverse range of housing choices suitable for residents at any stage of their lives. Proper support for walking, cycling and public transport.
5. **Support Sustainable Transportation Choices**, through a compact, transit-orientated urban form

vi. Singapore

The Singapore Concept Plan, produced by the city-state's Urban Redevelopment Agency, is a strategic land use and transportation plan to guide development up to 2050-2060. Reviewed every ten years, this unusually long-term plan aims to ensure that there is sufficient land to meet anticipated population and economic growth, and to provide a good living environment. It operates in tandem with a shorter-term Master Plan which implements according to the overarching vision.¹⁵¹

The Concept Plan was last reviewed in 2011, and begins from a population target, which is currently 6.9 million by 2030. This projected growth will require an extra 5,600ha of land and the Concept Plan has therefore accompanied in 2013 by a Land Use plan which outlines the strategies to provide this physical capacity (including reclaiming additional land, developing some reserve land, intensifying new developments, and recycling low-intensity land). Beyond 2030, the city-state expects to have room for growth through further land reclamation, and the development of new growth corridors both in the north (from Woodlands to Punggol) and in the south (from Tanjong Pagar to Pasir Panjang Terminal).

¹⁵⁰ www.metrovancouver.org/planning/development/strategy/Pages/default.aspx

¹⁵¹ www.ura.gov.sg/uol/concept-plan.aspx?p1=View-Concept-Plan

Focus groups within the Concept Plan review team of 2011 focused on sustainability and identity, as well as quality of life. Their respective aims are for Singapore to be “a sustainable city and endearing home” and “an even more liveable and lively city, one which is inspiring, inclusively vibrant, and which residents love and are proud to call home.”¹⁵² The quality of life focus group proposed four themes for the future:

- Distinctiveness: An inspiring global and Asian city
- Proud home: Deepening the sense of community and ownership
- People-centricity: Catering for diversity while being 'age-friendly'
- At the cutting edge: Breaking new ground as a city of tomorrow

The sustainability focus group also made a number of recommendations:

- Strengthen green infrastructure
- Foster more sharing and ownership of sustainable practices
- Cherish and safeguard our built and natural heritage
- Enhance our people's experience of our built and natural heritage
- Involve the stakeholders and community in shaping an endearing Singapore¹⁵³

vii. Tokyo, Japan

Fiber City: Tokyo 2050 is a vision of the future of Tokyo that retrofits and recasts the balance between the natural and built environment. Conceived at Tokyo University, its principles emerge from four facts of urban life in Tokyo: decreasing population, an ageing society, environmental crisis, and earthquake potential.¹⁵⁴

Fiber City's vision is that a shrinking economy makes many facilities and houses surplus, freeing up land for a green city. Fiber City provides a model for better access to public transport, and reclamation of historic features like Edo canals and bridges that have been covered by elevated expressways. The plan is distinctive because it considers that the compact city model will only end up appealing to a 21st century population if the design and liveability principles are properly adhered to.

Key ideas encompassed within Fiber City are:

- The shrinking city of the future is accepted as ‘the normal state of affairs’
- Existing structures need not be destroyed but should be re-used in practical ways;
- The resolution of public transportation issues must be considered as part of an urban environmental strategy.
- Public transport is a fundamental right of the ageing population.¹⁵⁵

¹⁵² www.ura.gov.sg/uol/publications/research-resources/plans-reports/Concept%20Plan%202011/cpr_2011.aspx

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¹⁵⁴ <http://tokyogreenspace.com/2009/07/02/fiber-city-tokyo-2050/>

¹⁵⁵ www.fibercity2050.net/eng/fibercityENG.html

The project envisions:

- Creating a semi-lattice structure to the urban system, rather than a centre-periphery tree-based system. The semi-lattice is more flexible to future trends and metabolic shifts in the centre of gravity of a city over time.
- Maintaining the high-density rail network and concentrate populations along lines and adjacent to stations.

viii. Delhi

Although in the emerging world sub-national strategies are not usually as advanced, in **Delhi 2050**¹⁵⁶ city stakeholders have combined with international advisors to steer debate on the city's future. Delhi 2050 is an open process to fundamentally rethink the long-term future of Delhi, initiated in December 2010. Through a participatory and multi-disciplinary approach in 2010, four thinking models emerged that toured the city in May 2011, namely People (social issues, human behaviour, culture, heritage, and micro-economy), Planet (water, ecology, energy, waste, and food) and Profit (economy, mobility, densities). These themes were explored by representatives and experts of governments, knowledge institutes, engineers and designers from India and the Netherlands, including the Ministry of Urban Development and Delhi Development Authority.

¹⁵⁶ www.delhi2050.com/

4. Conclusions

There is no single ‘future of cities’.

Cities of different sizes, in different locations, are facing unique and distinctive futures. The populations of various cities are shrinking, growing, becoming richer, poorer, older, younger, more spread out and more concentrated. Accordingly, they face different challenges in securing the liveability and economic development outcomes that our new urban age demands. Nonetheless, despite this diversity, it is possible to create a *broad* categorisation of five challenges which almost all cities will face in the future:

4.1 Challenges for the future

Growth and change challenges – globalisation is changing the nature of city economies around the world. Whatever the direction or specific type of change, cities will need to adapt or even restructure in response to changing global markets. All cities will need to prepare long-term strategies for growth in order to ensure that they become or remain competitive. All cities have to become flexible and adaptive.

Infrastructural challenges – whether cities have infrastructural systems in place which need updating or repairing, or whether they need to build new systems from scratch, ensuring that infrastructural systems keep up with the pace of urban change is one of the biggest imperatives which city leaders will face in future. All cities have to find the means to invest and manage infrastructure for changing needs.

Environmental and social challenges – are many and varied, but will affect every city in some form or another. Climate change in particular is an issue which will need to be considered and dealt with to some extent by every city leader, but other challenges might include reducing crime and improving safety, responding to natural disasters or ‘man-made’ disasters such as terrorism and epidemics, securing social cohesion, or reducing pollution. Sustainability and liveability of cities is a common agenda for all city leaders.

Governance deficits and challenges – As most cities are becoming larger and more complex entities, the management and governance of city systems is inevitably also becoming more complex. A future challenge for most city leaders therefore will be ensuring that the governance of cities remains as open and transparent as possible, and that citizens themselves remain engaged with its democratic processes. In addition, as cities increasingly outgrow their formal administrative boundaries, and awareness grows of the importance of national (or even regional) systems of cities, it will also be a future challenge for city leaders to build positive relationships with other tiers of government, and other actors within the metropolitan area. Finally, city leaders are generally elected with 3-4-5 year mandates. This can create an institutionalised ‘short term’ perspective, even though most of the big issues facing cities require long-term solutions. Achieving consistency across political cycles then becomes a major imperative for facing cities.

Financial Challenges - other than a handful of very empowered city states (Singapore, Zurich, Hong Kong, Berlin, Hamburg, Bremen), most cities are dependent to a greater or lesser degree on other tiers of government and other ‘external’ parties (including the private sector, international financial institutions or even sovereign wealth funds) as sources of municipal finance. Almost all institutional frameworks are on a path towards greater de-centralisation and empowered self-government by cities or metropolitan

areas. The ability of local leaders to co-ordinate activities and combine financial resources is a critical objective on the path towards integrated solutions for cities. The distance still to travel and the pace of the change towards strong self-governing cities varies enormously from one nation to another. Raising sufficient funds for essential projects, whilst keeping municipal indebtedness low, is a challenge which will be near universal for city leaders in future.

4.2 Innovation and tools for the future

Just as every city will have its own unique combination of specific challenges in the future, so too must city leaders devise bespoke strategies and solutions to meet those challenges. Due to governance and investment deficits that most cities experience, city leaders have to invent new approaches and tools regularly. Within a city leader's toolbox there are an increasing number of tools, tactics and strategies, any one or combination of which they may consider using to enhance their city's future prospects. Many cities are already using some or all of these tools and approaches:

Strategic long term planning

As cities grow beyond their formal administrative boundaries, thinking about the future of cities can no longer be effectively carried out in silos by city authorities. Fostering collaborative working patterns with actors outside city boundaries will be a useful strategy for most city leaders. In addition, as a result of a) the limited powers and resources of formal city leaders and b) the increasing complexity and number of challenges that cities face, city authorities can benefit from the ideas and skills of other city stakeholders, from citizens to academics, business people and not for profit organisations when developing strategies for the development of their future city. It is increasingly common to see collaborative city plans or visions such as Sydney 2054, Florida 2060 and Barcelona 2020, which set a longer-term framework for their development.

Coalition building

Many city leaders recognise the importance of building longer-term coalitions for governance. These coalitions can be categorised into 5 different spheres:

- *Coalitions with citizens:* City leaders have to produce a long-term consensus with citizens about the needs of the city and the priorities for action. They must also engage their citizens in the behaviours and habits which reinforce the city's goals. For example, tackling climate change requires city leaders to encourage and support change in citizen behaviour.
- *Coalitions with civic society and the private sector.* Businesses and major institutions are critical partners for city leaders in building integrated agendas between asset managers and employers. Together, business and civic groups can fill 'gaps' in city leaders' formal powers, by utilising their own skills and contacts. They can be effective advocates, representing the city persuasively with higher tiers of government, and also have roles to play in marketing and promoting the city. Civic and business leaders can also help city leaders with the prioritisation of competing capital requirements, and with the implementation of major projects.
- *Cross party work on longer-term issues.* Although cross party work is always difficult, many city leaders realise that there is greater chance of consistency and success in policy intervention if they can form some common agendas across political parties. In

cities with fluidity and regular change in political leadership over consecutive electoral cycles, this type of coalition is particularly important in achieving real change.

- *Regional coalitions of neighbouring municipalities.* Today's cities have often sprawled beyond their formal administrative boundaries, with their functional economic areas spread across the jurisdictions of numerous neighbouring authorities. Metropolitan coalitions are therefore critical for dealing with the challenges of the growing cities and the fragmentation of metropolitan areas.
- *Coalitions with higher tiers of governments.* Engaging national and other higher tier governments in a long-term agenda for the development of the city is critical goal for all city leaders.

Increased powers at local level

Cities often lack the human, financial and technical resources or powers to implement necessary changes in urban systems, or to raise revenues to invest in projects and services that their cities need. There are increasing calls in both the developing world and in upper income countries for greater powers to be devolved to local governments, so that those who are closest to city challenges have the appropriate resources to address them.

Idea sharing and networking

Although cities face unique challenges and exist within distinctive contexts, the experiences of others – who perhaps have faced similar challenges in the past - can help in developing plans for the future. Working with higher tiers of government (as Delhi has done in Delhi 2050) and even seeking advice from international experts (World Economic Forum Urban Development Initiative) or other cities (Norway's Cities of the Future Project) can utilise the expertise and resources of others to make problems more manageable and can help city leaders to identify solutions. City networks such as CityNet or Metropolis also provide useful resources for sharing ideas and best practice.

Capacity building

There can be no 'one size fits all' model for city success. The success of future cities is therefore at least partially determined by the extent to which city leaders recognise and anticipate a city's own set of challenges and identify appropriate and effective solutions. Focusing on building the capacity and skills of city leaders *today* will ensure that they are better equipped to meet the challenges of tomorrow.

4.3 Conclusion

The world has started to take the future of cities agenda much more seriously in the last five years. The purpose of this paper has been to review what is being investigated and considered at the international level. The wide range of national, supranational and local studies reveal new methodologies for conceiving of the future of cities. The diversity of different kinds of cities, city systems, and systems of cities provide a rich framework to understanding urban diversity and for innovative learning. What this review reveals more than anything is that the future of the world's cities is a growing concern, as it becomes clearer that avoiding the mistakes of past cycles of urbanisation is critical to achieving the potential that the current cycle of global urbanisation has for human development and planetary sustainability.

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