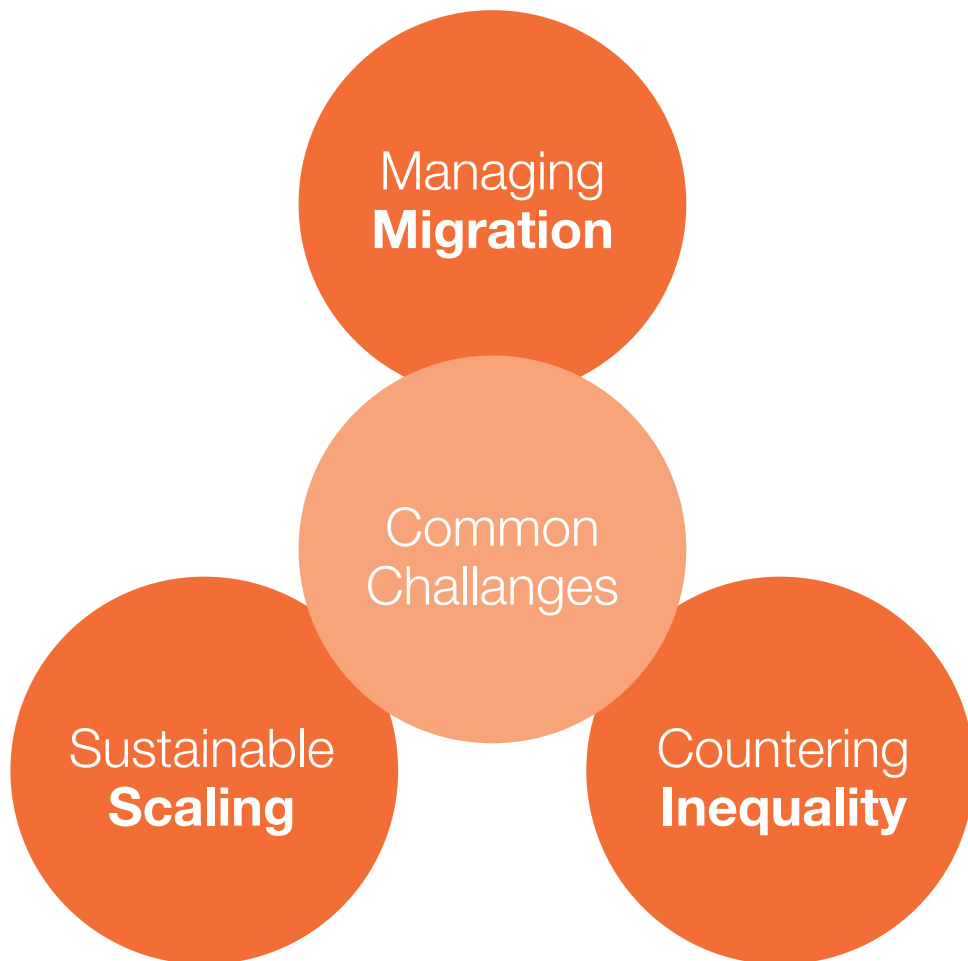

Common Challenges

Across our discussions a number of issues were raised repeatedly and focused on three significant, inter-related, macro-drivers of change. We see these as the common challenges impacting the majority of the world's cities.



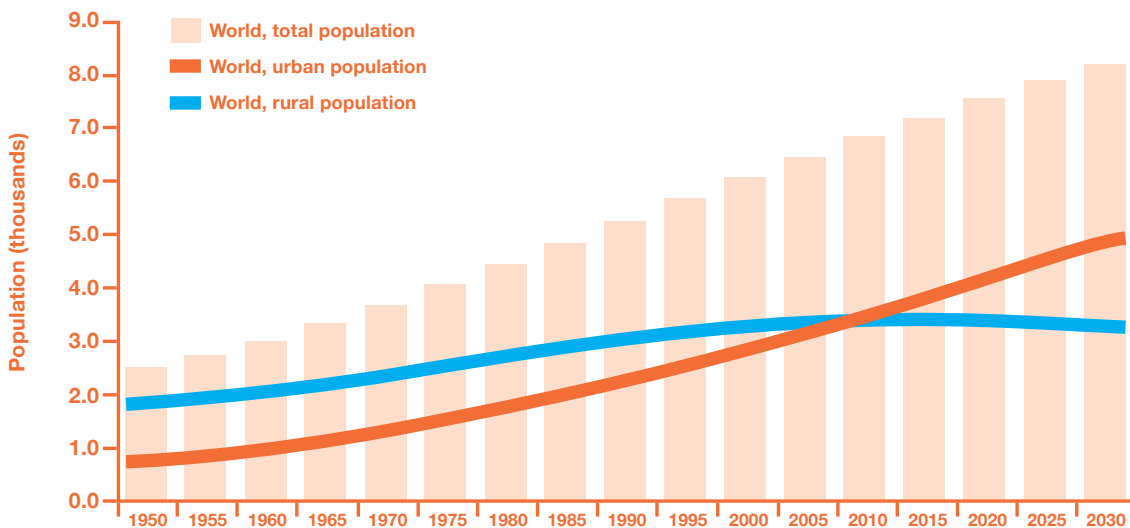
CHALLENGE 1: Managing Migration

The facilitation of internal and international migration to cities is set to be one of the defining features of 21st century city management.

Over the past 30 years, the world's urban population has risen from 1.6 billion to 3.9 billion. In the next 20 years it is expected to surpass 6 billion, with most of the growth now taking place in cities developing countries, those in Africa particularly. Growing migration to cities in most regions is set to be one of the defining shifts taking place for the rest of the century. If managed successfully, accommodating this vast influx of people has the potential to generate huge growth and stimulate an expanding middle class enjoying better living standards; but getting it wrong will set the scene for worsening pollution, urban sprawl, congestion, increasing inequality and rising social tension. Many governments are nervous. Only a few feel able to absorb all new arrivals, many of which may be unplanned and unforeseeable. The majority, it seems, have only limited contingency strategies in place. A key question will be around how urban planners best manage a transition to migration readiness?



THE URBAN AND RURAL POPULATION OF THE WORLD, 1950-2030



Source (i)

Pace of Change

According to the LSE Cities research project, around 32 people every hour, day and night, are now moving into Shanghai, 39 into Kinshasa and Jakarta, 42 into Mumbai and Karachi, 50 into Dhaka and 58 into Lagos.⁵ This is all pretty much one-way traffic, is happening 24/7 and shows no sign of slowing down. There are many reasons for this ranging from the desire for a better quality of life or the need to flee conflict to escape the impacts of climate change or the desire to find a release from the grinding harshness of rural life.



Coping Strategies

The scale and pace of this movement is having a huge social, cultural and political impact. Changes that used to take centuries are now occurring in only a few decades, generating huge challenges, including unplanned slums, excessive pollution, destruction of the environment and gaping inequality. Such is the magnitude of these challenges, **some governments have become doubtful of their ability to cope and have tried to either slow the process down or disperse the problem.** As far back as 2013, a UN study⁶ of all 193 member-states found that 80% had policies to reduce rural to urban migration. This is more pronounced in poorer countries. 88% of the least developed countries reported they wished to reduce the rate of migration to urban areas.

Given the amount of change underway, many cities are being forced to rethink how they plan their infrastructure and services to cope with fast-rising and yet sometimes statistically invisible populations. Some policies have been designed to slow or halt the rural-urban migration. These range from China's infamous 'hukou' system of residency rights to rural tax and investment incentive schemes in places like Mozambique. Others try to address urban sprawl by, for example, scrapping height restrictions on buildings. One tangible problem is creating enough space for roads: Manhattan is 36% tarmac compared to some unplanned African suburbs where as little as 5% of the land is road. In Saudi Arabia the government has decided to build entirely new super-cities to ease the pressures of the rapid growth of Jeddah and Riyadh, and the Egyptian government is following suit, establishing 20 new cities to divert people away from Cairo. It has plans for 45 more, including a 700 sq. km new capital 'New Cairo'.

In many countries, regulation lags behind urbanisation, which often means that basic services, like schools, transportation, public spaces and land rights, are not being properly delivered to the millions of people living in informal urban settlements, in part because of the speed of urban growth. Although the ambition is to plan for a better infrastructure, many urban leaders are taking too long to do so, which means that by the time a plan has been agreed, large-scale immigration and the consequent muddle of rambling, informal development has already taken place.

Success in Parts

Some countries have been more successful. China for example, in an attempt to accommodate the rush to the cities, has spent 8.5% of its national income on infrastructure each year for the last 35 years, far more than Europe and America (2.6%) or India (3.9%). Yet even there, many cities still cannot cope with the speed of urban development which has, quite literally, supersized them, seemingly overnight. Many of them were large already, and now more than 100 have populations exceeding one million.

China also has true “megacities”, those whose populations exceed 10m. Of the 30 cities worldwide that match this definition, it boasts six: Shanghai (23m), Beijing (19.5m), Chongqing (13m), Guangzhou (12m), Shenzhen (11m) and Tianjin (11m). A further ten contain 5 to 10m people. At least one of these, Wuhan, will pass 10m within a decade. In addition, 3,500 new urban areas are planned in the next few years. Massive spending on infrastructure has hugely improved connections. But congestion is appalling, air pollution a real health hazard and perhaps more importantly in the Chinese context, residents are complaining. To address this in April 2017 the Central Committee and State Council announced plans for a completely new city, Xiongan, 100 km SW of Beijing. Planned to be three times the size of New York this will be designated a Special Economic Zone and is intended to be a model for future urban design, placing particular emphasis on innovative development, ecological protection and improving people’s well being.

Turning to Latin America, a UN-Habitat report suggests that the urban transition, as traditionally conceived, is almost complete. Despite paying a significant social, economic and environmental cost for this, today almost 80% of the South American population live in a city and there are high hopes that they will experience a “new cycle of urban transition”, heralding improved living conditions and a better quality of life. The report argues that, thanks to devolution of planning, local governments now have valuable experience that bodes well for the ability to face the future.⁷ The region’s 198 large cities - defined as having populations of 200,000 or more - together contribute over 60% of current GDP. The ten largest cities alone generate half of

that output. Looking ahead, the McKinsey Global Institute estimates that this is expected to grow to 65% over the next 15 years. This is equivalent to around 6% of projected global GDP growth, more than 1.5 times the contribution expected from large cities in Western Europe, and closer to the growth contribution anticipated from India’s large cities.

The African subcontinent faces different challenges. It is the only region where urbanization does not correlate with poverty reduction. For the last two decades’ urban growth has been around 3.5% a year. In part this was caused by migration but looking ahead natural demographic growth due to higher birth rates and lower childhood mortality is expected by some to double by 2050 and quadruple by 2100, and is likely to make an increasingly significant economic contribution. To date, planners have done little to accommodate the influx. According to UN-Habitat 61.7% of urban Africans in sub Saharan Africa live in a slum where only 40% of residents have access to a proper toilet, a figure which has not changed since 1990..In Nairobi, around two thirds of the population occupy 6% of the land. The relative prosperity in North African countries is mainly attributed to better urban development strategies, including investment in infrastructure and in upgrading urban settlements. But bad planning means that, overall, many cities are growing unsustainably faster in size than in population. Lagos, the capital of Nigeria, is typical: it doubled in population between 1990 and 2010 but tripled in area.

Between 1980 and 2010, the population of S.E. Asia’s cities grew at an unprecedented scale - by around one billion. United Nations projections suggest they will add another billion by 2040. Recent economic successes have lifted hundreds of millions of people out of poverty and created a rapidly growing urban middle class that now numbers almost 2 billion people. Nevertheless, it is also home to the world’s largest urban slum populations and the largest concentrations of people living below the poverty line

International Migration

Much of this growth can be attributed to rural to urban migration but international migration is also on the rise. Together Asian and Middle East cities added more international immigrants than either Europe or North America between 2000 and 2015. Many are often relatively localised as migrants often still want to remain in touch with their origins, keeping a common language for example. For instance, the World Bank estimates that 1.5 million migrants from Burkina Faso live in the Ivory Coast - that makes Burkinabe immigrants more numerous than Indians in Britain or Turks in Germany. In India there are more immigrants from Bangladesh than there are Mexicans in America.

Contrary to many media reports, and with the important exception of many European nations and the US, the general public is more likely to be in favour of migration than against it, according to findings of an IOM-Gallup report.⁸ However in much of the West, the fear of an influx of low-skilled workers has become an increasingly contentious, even hostile, political issue. Voters in host countries often perceive migrants as a threat to their livelihoods and living standards. Many in the US are, for example, wary of incomers and there is fierce debate raging whether migrants hold down the wages of native workers. In Britain this argument is also made, but alongside this there is added popular discourse around migrants putting pressure on public services, particularly the nationalised health service. Although shown by many experts to be, at the very least, debatable, this is what many in the UK firmly believe to be true.

Positive Migration

Elsewhere, public attitudes to migration are more sympathetic. When we ran our Beirut workshops in 2016, the inflow of refugees from Syria to Lebanon had just passed 1.5m. Added to the 500,000 Palestinian refugees already in the country, that made a migrant population of 2m in a total of only 6m by the middle of 2016 - there was 1 refugee for every 2 Lebanese nationals. This put into context the 2015 European resistance to 1m refugees being absorbed by a population of 500m. Yet, Beirut does not seem to be distracted from its core focus on growth and development and is steadfastly seeking to follow a master plan to complete the rejuvenation of its Central District and makes the city better for all.⁹

In truth, while concerns around cultural dilution, instability and crime intensify populist agendas, for nations with naturally declining domestic populations (primarily in Europe and the US), there is really no long-term option but to support the economic immigration lever. Certainly many who participated in the Future Agenda discussions see migration not only as a 'gap-filling' force in the short term but also a foundation for sustained future growth. They also suggested that increasing cultural diversity brings understanding and so makes nations more influential on the world stage. This is supported by the OECD view which states that migrants contribute to labour-market flexibility, pay more in taxes than they receive in benefits, boost the working age population, bring in new skills, add to human capital and fill importance niches in new and old sectors.¹⁰



CHALLENGE 2: Countering Inequality

Providing equitable access to all elements of urban life including transport, sanitation, healthcare, education and work to facilitate economic growth and cement social stability.

“While cities are powerful engines of opportunity, innovation, and progress, they are also home to growing concentrations of poverty and vulnerability.”
– Carrie Thompson, USAID, 2016.¹¹

Although economic globalization has created great wealth, it is increasingly clear that its benefits are very unevenly distributed. Affluence has accumulated at the very top of the income scale while the wages paid for service and manufacturing jobs have stagnated or declined.^{12,13} Increasingly, we are beginning to understand the harms that this does to society, and yet it seems to have become an almost inevitable part of the story of development. **With more people moving to cities, so widening differences in access to housing, transport, sanitation, healthcare, education and jobs continue to extend the gap between rich and poor.** And although migrant communities may suffer most, urban inequality is rising independent of the numbers of new arrivals.

The GINI coefficient, the most commonly used measure of inequality, shows that some of the

areas of highest inequality are the mega-cities.¹⁴ A coefficient of zero equates to perfect equality while one of 100% represents maximum inequality. The cities of Rio de Janeiro, Bangkok and Sao Paulo all have coefficients over 50%. Not far behind in the rankings come Moscow, Shanghai, New York, Mexico City, Los Angeles and London. South Africa is the most unequal country with a GINI coefficient over 60%.

Over the past few decades’ inequality between countries has also become an issue. In 2002 Americans were, on average, nine times richer than Latin Americans, 72 times richer than sub-Saharan Africans, and 80 times richer than south Asians.



CITIES WITH HIGHEST GINI COEFFICIENTS

1.	Salvador	65%	9.	St Petersburg	48%
2.	Rio de Janeiro	62%	10.	New York	47%
3.	Sao Paulo	55%	11.	Mexico City	46%
4.	Bangkok	54%	12.	Los Angeles	45%
5.	Bogota	53%	13.	Shanghai	44%
6.	Santiago	52%	14.	Chicago	44%
7.	Moscow	50%	15.	London	44%
8.	Tbilisi	49%			

Source (ii)



How Much is Enough?

The key question is how much inequality society can accommodate. Many believe we are at a tipping point, with organisations such as the World Economic Forum suggesting it now poses a material risk to the continued strength of the global economy. Clearly more could be done to address the problem.

In terms of urban development, spatial design has a significant role to play. To date many urban projects, large and small, have contributed to the physical reinforcement of inequality; the proliferation of gated communities is a very good example, as is the scarcity of basic infrastructure in poorer districts. Looking ahead, planners need to include integrated design as a way to assimilate poorer communities into wider city life without compromising the ongoing development of the city.

Inequality is not only about money; more importantly perhaps it is also about access to services such as health and education. Poor access to education, for example, has been identified as being one of the main limits to social development. As LSE's Professor Ricky Burdett recently pointed out, "If one takes education levels of the population in different parts of the city, the quality of education utterly correlates with the availability of, and accessibility to, transit facilities, whether a subway, bus, rapid transit system, or bicycle network. In other words, the better the infrastructure, the higher the educational levels. It is fundamental to remember that decisions made about whether to invest in one form of public transport over another have an impact on the way our children and grandchildren are educated."¹⁵ An

efficient, safe and affordable transport system that enables people to easily get to school or to work is therefore a vital component of social integration. A successful example of this can be seen in Bogotá which now has the highest literacy rate in Latin America, in part because its transport policies have taken the locations of public schools into account.

A Rich Country Problem Too

Urban inequality is not simply a developing world problem. The United States ranks poorly compared to other advanced economies when it comes to income inequality and social mobility. **Across the Americas the United States has one of the highest rates of child poverty** and comes second only to Brazil in terms of the percentage of children living in poor households. As well as having the largest number of millionaires in the country, New York City also has neighbourhoods such as Harlem and the Bronx where average incomes are well below the official poverty threshold. The decline in manufacturing, the legacy of racial segregation policies and the over concentration of the poor in central urban areas are all partially to blame for this.

The Influence/Need Gap

Although many Future Agenda discussions focus on those living below the poverty line, in Singapore it was highlighted that **governments are often made up of the wealthy elite, many of whom are out of touch with wider societal needs.** This can be exacerbated by the extent of influence the wealthy are able to extend over government policy including those concerned with planning

and shaping cities.¹⁶ The power of wealth is evident across many industries of course, some of which impact city planning and development. A 2015 Oxfam report noted that 20% of the world's 1,645 billionaires have interests in the financial and insurance sectors, a group which spends millions on lobbying policymakers in Washington and Brussels and on political campaign contributions, and which saw its cash wealth increase by 11% in the 12 months to March 2014.¹⁷ Some see that this sort of overt influence is unfair and undermines the democratic process; others are more sanguine believing that the overt power of the rich has always been part and parcel of life. They suggest that people in general care less about inequality than they do about economic opportunity, so the focus should be on avoiding stagnation, particularly of the middle classes, and not curbing the excesses of the very rich. The real question, of course, is whether we can actually ignore the rich, or whether in accommodating them, or leaving them be, we are actually prevented from catering for the poor.

Attracting the Highly Skilled

Attracting highly skilled workers to a city often leads to improvement in local amenities, such as the quality of schools, and cultural and entertainment opportunities. Theoretically this has the potential to benefit both the rich and the poor. However, often when an area becomes more attractive, more people want to live there and this has a knock on impact on the availability and affordability of housing supply. Affordable accommodation can sometimes become beyond the reach of low skilled workers. Even those who have, relatively speaking, well-paid jobs can become 'priced out' and so many up-and-coming cities risk becoming islands for the rich, and too expensive for the poor. Key workers such as carers, cleaners and policemen are obliged to move away, while those who need to, and are prepared to, work in city centres, often face a long and arduous commute.

Cities need workers at all levels, not just the professional elites. Concerns are growing about how to rebalance the situation, with many planners exploring measures to stop high house prices driving a working class exodus from urban areas.¹⁸ In London a recent report by the University of Westminster and Dolphin Living found that providing subsidised rental

homes to key workers resulted in a benefit to the capital's economy of £27,000 per household, not just through their spending power but their wider contribution to the economy, which far exceeds the salary they take home. To cite one example, a nurse will treat thousands of patients a year, getting them back to health and into the workplace.¹⁹

Bringing highly skilled workers to an area is not enough to guarantee high wages in a city; the right firms must come too. Knowledge-intensive industries such as technology and finance thrive on the clustering of workers who share ideas and expertise. The economies and populations of metropolises like London, New York and San Francisco have flourished because of this. Success often attracts success; so wealthy cities typically attract multiple high profile, high paying firms such as Apple and Google in London or Microsoft in Beijing. Successful companies pay more, so their workers have more to spend on their homes and in their local community. Some cities are more attractive than others in this regard; McKinsey identifies just 32 which it expects will generate one-quarter of the \$23 trillion in urban consumption growth projected from 2015 to 2030.²⁰



Without concentrated action, rising inequality will continue to have a destabilising impact on many societies, and especially on urban areas. Inequality narrows the tax base from which municipalities raise the revenues needed to provide essential public services. It also weakens the collective political will to make social and infrastructure investments. What's more, it makes it even more expensive to be poor by limiting access to services and raising the price of private-sector goods and services. To take one example, without access to the mains supply, many living in poverty are obliged to drink bottled water at over 100 times the cost of tap water.²¹ In this way, the problems of inequality are compounded.

In the US the decline in manufacturing, the legacy of racial segregation policies and the over concentration of the poor in central urban areas are all partially to blame for increased rates of poverty.²² Furthermore, the low-skilled, but good-wage jobs on factory lines that many used to climb out of poverty in the 20th century have largely disappeared. The question of how to offer opportunities to those who currently have none, will be one of the defining challenges of the next several decades.

Joined-up Resources

Given the inter-relationships between financial inequality and unequal access to transport, healthcare, and education, it is clear that **urban policy has to be increasingly integrated across multiple silos and, in most cities, this demands a far greater level of joined up action than has occurred in the recent past.**

As income inequality has risen sharply so the need to design a fairer city has become more pressing. An increase in social housing alongside limiting population density and creating better public spaces can make a difference, as will providing wider access to basic services such as banking, education and healthcare.²³ Mixed-income redevelopment in high poverty neighborhoods, along with the movement of poor people out of concentrated public housing will also help. But to what extent, some ask, can we engineer a more balanced society primarily from a planning perspective and how much will it be driven by a wider collection of actions?



CHALLENGE 3: Sustainable Scaling

Ensuring the sustainable development of infrastructure, the reduction of pollution and the creation of a safe, healthy environment in a time of accelerated urban expansion.

As the urban population and long-term de-densification trends continue, **the area of the planet covered by urban settlements will increase to more than 3 million sq. km between 2010 and 2050.**²⁴ Globally, never before have we seen such fast scaling of urban environments. If we are to avoid replicating the errors of LA, Las Vegas, Houston, Mexico City and their like, then cities must be planned sustainably.

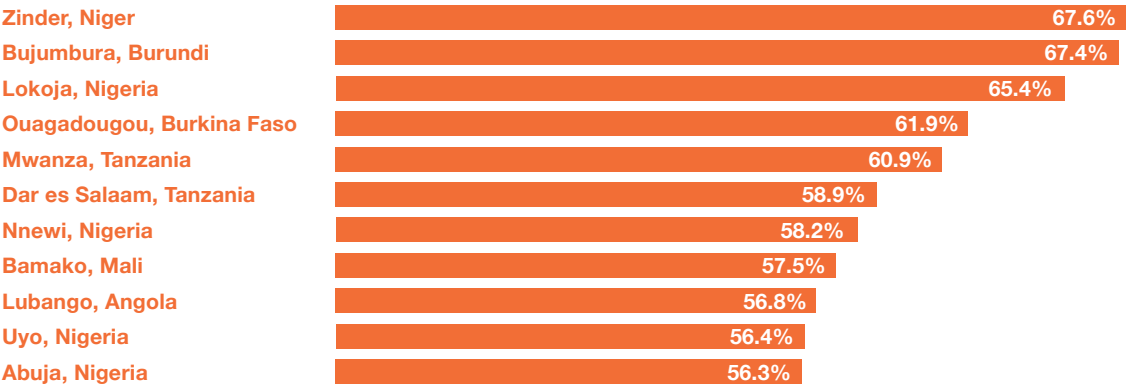
Most cities are messy sprawling places extending almost endlessly outwards. Even those we consider successful, such as Melbourne or Vienna are buckling under pressure to accommodate the sheer volume of people moving in and the problems that this entails: pollution, congestion and social cohesion, for example. Addressing these is, or should be, a priority.

For some with natural physical boundaries such as Mumbai and Manila, the implication of this is a relentless rise in population density; for others like Cairo, São Paulo and Karachi, unencumbered by physical constraints, the risk is of relentless

urban sprawl. It's not just the number of people, changes in living patterns and family and household composition mean that the size of households in most countries is now decreasing putting further strain on housing stock. Partly because of this, many cities are growing faster in size than in population.

It is perhaps in Africa where, with it's fast rising population and ongoing shift to city living, that the challenge of sustainable scaling is most significant. It is the world's fastest urbanising continent. **In 1950, sub-Saharan Africa had no cities with populations of more than 1m. Today, it has around 50.** The fastest growing metropolises, such as Nairobi, are expanding at rates of more than 4% per year compared to the average global urban population growth rate of 1.84% a year.²⁵ Looking at specific cities the numbers can be eye watering. Antananarivo, capital of Madagascar is growing at 5.1% a year while Abuja and Port Harcourt in Nigeria are ticking along at 6.2% and 5.1% respectively. Ouagadougou, capital of Burkina Faso, is experiencing population growth of 7.2% while Mbouda in Cameroon is the continent's fastest growing city at 7.8% annually. Unsurprisingly governments are finding it difficult to provide residents with even the most basic services of housing, water supply, sewerage and solid waste disposal.

FASTING GROWING CITIES. Estimated Urban Growth 2016 to 2025



Source (iii)



The core problem is that these metropolises are spreading indiscriminately. In Africa land ownership is often made up of a patchwork of smallholders, so developments emerge wherever a deal can be made. In the jumbled districts that result, far too little space is set aside for roads, parks and other “liveable” amenities. Even middle-class districts often lack sewers and mains water. No one even mentions public parks. Inevitably this will have consequences. Shlomo Angel of New York University has studied seven African cities in detail: Accra, Addis Ababa, Arusha, Ibadan, Johannesburg, Lagos and Luanda. He calculates that only 16% of the land in new residential areas developed since 1990 has been set aside for roads - about half as much as planners think ideal. Worse, 44% of those roads are less than four metres wide. For governments, retrofitting will be difficult, expensive and time consuming. There is hope however, urban authorities in centres like Narok and Kisumu in Kenya, and Moshi in Tanzania are beginning to make positive changes and are investing in improved risk assessments and urban upgrading as well as smarter land use, as the potential for future problems is better understood.

Ideally today’s fast-growing cities need to establish expansion areas that can accommodate growth, make space for arterial roads and public spaces, and secure the rights for both. Effective use of

expansion area planning would allow for changes in the way streets can be built and the necessary infrastructure installed. The model should be simple, efficient and flexible, attractive to residents and simultaneously economically competitive. **Experts point to densely populated cities like Paris and Hong Kong as the potential blueprints for sustainable living** rather than the distributed sprawls of Los Angeles and Mexico City. After all, dense living creates efficiencies - Hong Kong uses around 5% of its GDP to move people and goods around; in LA the figure is over 40%.

Given several of the metropolises in Asia and the Middle East are effectively being built from scratch, the opportunity exists to get scaling right from the start. But time is of the essence, as many are expanding faster than planners can draw up the necessary designs. For example, a city such as Dubai, which some expect to grow from 4m in 2016 towards a population of 20m or even 30m over the next 30 years, risks suffering long term challenges as a result of piecemeal development. Unlike the thriving city-state of Singapore, it does not seem to have a comprehensive master plan that can ensure the creation of sustainable communities for example. Without it, Dubai’s developers risk creating just another longitudinal urban sprawl that spreads along the coast to Abu Dhabi.

In some locations, such as Cairo and Seoul, we see what has been described as over-urbanisation – they are cities whose rate of urbanization outpaces their industrial growth and economic development. Mitigating against this elsewhere is a common aspiration. Different approaches are being taken at a planning level. For instance, **in many regions establishing satellite cities and networks of ‘midi-cities’ is seen as a preferred route to more singular mega-city development.** Connected by fast infrastructure, these can act collectively but in a sustainable manner.

“Satellite cities differ from suburbs, subdivisions, and bedroom communities in that they have municipal governments distinct from that of the core metropolis and employment bases sufficient to support their resident populations.” – Kai Larsen, Citylab, 2012.²⁶

In China, the network model is in full sway. In South East China high-speed trains and super-fast broadband are used to connect a number of smaller cities and create a more coherent centre of population of about 40m. Nine cities including Guangzhou, Shenzhen, as well as the smaller Zhaoqing, Foshan and Dongguan are now gaining from mutual cooperation but without simply morphing into continuous urban sprawl across the whole of the Pearl River Delta.

Irrespective of whether it's extending a market town or a mega-city, there is a call for clear leadership and an integrated approach to link economic development, social change and healthcare, with better transport, access to open spaces and sustainable housing. Often seen as best in class here are Amsterdam's Structural Vision,²⁷ the Singapore Urban Redevelopment Authority's Master Plan²⁸ and the London Plan.²⁹

MAP OF SE CHINA CITIES NETWORK



Source (iv)