

Chapter 1:

The Diversity of Cities and Visions for Urban Futures



Quick facts

1. Cities are here to stay, and the future of humanity is undoubtedly urban, but not exclusively in large metropolitan areas.
2. Urbanization will continue to be a transformative, but uneven process that will require differentiated responses depending on the diversity of the urban context.
3. The worst-case scenario of urban futures will have disastrous consequences for cities; thus, resulting in economic uncertainties, environmental challenges and exacerbate existing vulnerabilities.
4. A business-as-usual approach will result in a pessimistic scenario of urban futures characterized by the systemic discrimination and exclusion of the poor in urban agendas.
5. With concerted policy action, it is possible for cities to avoid either of the high damage or pessimistic scenarios and instead emerge into a more optimistic urban future.

Policy points

1. The emergence of urbanization as a global mega-trend is intertwined with the existential challenges that the world has faced in the last 50 years.
2. Building economic, social and environmental resilience, including appropriate governance and institutional structures, must be at the heart of the future of cities.
3. The disruptive nature of COVID-19 and the emerging global uncertainties are all stark reminders that urban areas need to be prepared for an ever-changing and unpredictable future.
4. Any vision for an optimistic future of cities must embody a new social contract with universal basic income, health coverage and housing.
5. Localizing the New Urban Agenda and SDG 11 is the most promising pathway to the optimistic scenario of urban futures.



1.1 What Futures for Cities?

Policymakers, researchers and urban residents have long been preoccupied with the future of cities, particularly in charting the divergent demographic, economic, social, environmental and policy pathways that will lead towards more sustainable outcomes.¹ This preoccupation is due to a greater recognition in the multilateral system of the role that urban areas play in securing sustainable futures across a range of key global issues, including climate change, inclusive economic growth, poverty eradication, housing, infrastructure, basic services, productive employment, food security and public health.² Analysis of a range of urban futures offers an investigative and diagnostic view on how cities can be prepared for an ever-changing world. Such analysis can also explore the drivers and scenarios behind the aforementioned pressing global challenges, all of which have an increasingly urban dimension.

Recently, the future of cities agenda has assumed a greater level of importance and urgency given the disruptive impacts of COVID-19 and its implications for urban areas.³ In this regard, governments, international agencies, the private sector and scholars, among others, are critically examining what the future of cities portends in the aftermath of COVID-19.⁴ While the early days of the pandemic in 2020 created a temporary crisis of confidence in the urban future as many of the world's largest cities saw their populations shrink and their residents disappear from public spaces, a broad consensus is that urbanization remains a powerful twenty-first century mega-trend. Indeed, there is now an emerging sense of optimism that the crisis may provide us with the opportunity to build back better, stronger, more inclusively, greener and safer based on the impacts and lessons learned from the pandemic. COVID-19 provides the opportunity to look back, correct past mistakes and transform cities globally for future resilience, inclusion, green growth and economic sustainability.⁵

In casting an eye on the future, we must also establish crucial links with the past. That imperative compels us to embrace the overarching role of multilateralism, especially the interrelationship between the various development agendas



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adopted in the last decade, in the quest to find long-term solutions to global challenges such as the ongoing pandemic, climate change, inequality and rising poverty. Since 2020, armed conflict has also taken centre stage among pressing challenges that impede sustainable urban development. Years old conflict has persisted in Syria and Yemen, while new conflicts have flared up in Ethiopia, Myanmar and Ukraine. The seizure of power in Afghanistan by the Taliban in 2021 was also tumultuous for human settlements across the urban-rural continuum. These conflicts are reminders that the spectre of war remains an enduring threat even in the twenty-first century. Ultimately, however, the lessons from the pandemic offer an opportunity to reflect on the role of local governments in driving the direction of city diplomacy amid global systemic disruptions.⁶ The world must maintain its focus on delivering the global development agendas and local governments are key players at the forefront of that effort. Local governments have not only embraced these agendas, but they were actively involved in their negotiation.⁷



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The emerging “new normal” seeks to bring us closer to the solutions and behavioural changes that address the structural problems of the past and set us on the path to a more sustainable future. For instance, the short-term environmental gains that accompanied the lockdown during the peak of the pandemic in 2020 are an indication of the willingness of people to comply with government directives and alter their behaviour for the common good. Urban areas are best placed to foster the behavioural and lifestyle changes that are necessary to ensure the transition to resilient and sustainable urban futures. Cities remain central to the sustainable development trajectory as planned urbanization provides the foundation, institutions and prosperity that are crucial in the efforts to build back better, more inclusively, greener, safer and smarter.

Most cities are not able to meet the triple objective of being economically productive, socially inclusive and environmentally sustainable.⁸ Consequently, transformation in cities and communities along certain priority areas are required to achieve the Sustainable Development Goals (SDGs). These priorities include ensuring access to a clean water supply, functional sanitation, and appropriate sewage and waste disposal; providing sustainable and efficient

mobility; promoting more compact, safe and healthy settlements; and enhancing resilience against climate change, extreme weather events and disease transmission.⁹ All of these priorities resonate with measures taken to mitigate the impacts of COVID-19 and achieve more sustainable urban futures.

The United Nations gave us a glimpse into the future in 2014 when it collated 202 contributions from scientists in response to the question “What do you think the world will be like in 2050?” These responses were synthesized to 95 ideas and the scientists were invited to vote on their ideas. Table 1.1 shows the top 15 ideas that were voted as the likely futures if the world continues in the business-as-usual historical path of incremental improvements in reaction to perceived crises, instead of a shift towards a long-term perspective anticipating the troubles ahead.¹⁰ The standout ideas are accelerating climate change, inequality, poverty and unsustainable consumption of natural resources. Many of these issues are unfolding in urban areas (as indicated in the shaded areas of Table. 1.1), which account for 56 per cent of the world’s population. In just six years, many of these anticipated future outcomes have been accelerated by the impacts of the COVID-19 pandemic.

From a demographic perspective, a glimpse into the future, points to a world that will continue to urbanize over the next three decades – from 56 per cent in 2021 to 68 per cent in 2050, with urban areas absorbing virtually all the future growth of the world’s population (Figure 1.1).¹¹ Whatever urban-to-rural migration occurred temporarily during the COVID-19 pandemic is not forecasted to alter the fundamental reality of a predominantly urban world. This trend line implies that the level of urbanization will increase by 12 percentage points over the next three decades, which translates to an increase of 2.2 billion urban residents, with most of these living in Africa and Asia. All regions of the world are expected to become more urbanized in the next 30 years, although highly urbanized and more developed regions are expected to stabilize or experience a decline in the rate of urban growth. Unequivocally, this tells us that cities are here to stay, and that the future of humanity is undoubtedly urban, but not exclusively in large metropolitan areas (Chapter 2).

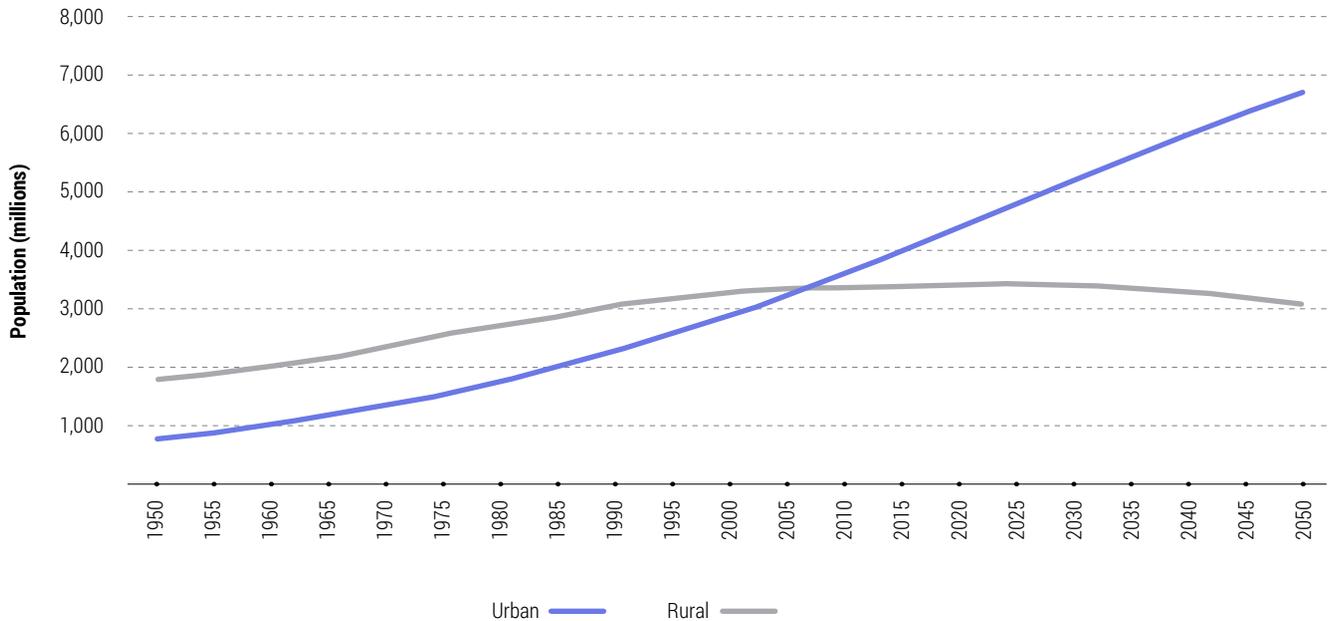
The increase in urbanization is intertwined with the existential challenges that the world has faced in the last 50 years.¹² These challenges include long-term stresses like climate change and income inequality, as well as immediate

Table 1.1: Top 15 crowdsourced answers to the question “What do you think the world will be like in 2050?”

Idea	Score
Global collapse of ocean fisheries before 2050	90
Accelerating climate change	89
There will be increasing inequity, tension and social strife	86
Global society will create a better life for most, but not all, primarily through continued economic growth	86
Persistent poverty and hunger amid riches	86
Humanity will avoid “collapse induced by nature” and has rather embarked on a path of “managed decline”	83
Two-thirds of world population will be under water stress	83
Urbanization will reach 70 per cent (+2.8 billion people in urban areas, -0.6 billion in rural areas)	83
The number of people going hungry will be reduced by 500 million people, still leaving 250 million with insufficient food	83
Continued lack of understanding of the complex non-linear dynamics of ecosystems	80
Food production peaks around 2040 at a level 60 per cent above today’s current levels, in terms of tonnes of food per year	75
Gross world product keeps growing until the second half of the twenty-first century, but at an ever-decreasing rate	75
Temperatures and sea levels will continue rising, as will the share of renewable energy use	75
Massive human interference with phosphorus and nitrogen cycles well beyond safe thresholds	75
Greenhouse gas (GHG) emissions will increase by 70 per cent, from 48 to 83 GtCO ₂ -equivalent. Most of the increase will be in Brazil, Russia, India, China and South Africa (BRICS).	75

Source: UNDESA, 2014a.

Figure 1.1: Urban and rural population of the world (1950-2030)



Source: UNDESA, 2019b.

shocks. The risk of zoonotic viruses came to the forefront with the COVID-19 pandemic, which triggered the worst public health crisis in a century and the worst economic recession since the Great Depression. The armed conflict in Ukraine that began in February 2022 has led to the most destructive urban warfare since World War II. These challenges will leave their imprints on the future of cities in different ways. The concentration of greenhouse gases as measured by carbon dioxide, driven mainly by human activities, especially the burning of fossil fuels, has been increasing since 1958 and currently stands at 413.64 ppm.¹³ The Intergovernmental Panel on Climate Change (IPCC) report Climate Change 2021: The Physical Science Basis notes that global warming of between 1.5°C and 2°C will be exceeded during the twenty-first century unless net carbon emissions decline by 45 per cent by 2030 based on 2010 levels.¹⁴ This report was a call to action for sustained reduction in the use and production of fossil fuel and massive investments in clean energy projects and infrastructure to the tune of US\$4 trillion annually by 2030 to get the world on track for net zero emissions by 2050.¹⁵

However, current plans by governments to produce fossil fuels up to 2030 are incompatible with limiting global temperatures to 1.5°C. Global energy markets have been in flux since Russian military operations in Ukraine began

and the long-term consequences of that conflict remain to be seen. Many countries have signalled their intention to stop importing Russian oil and gas, but it is as yet unclear if this geopolitical shift will accelerate the adoption of renewable energy or shift consumption to other sources of fossil fuels. Regardless of recent events, Chapter 5 notes that the transition to net zero is marked by lack of ambition and policy pitfalls. The assessment of recent national energy plans and projections shows that governments are in aggregate planning to produce around 110 per cent more fossil fuels in 2030 than would be consistent with limiting global warming to 1.5°C, and 45 per cent more than would be consistent with limiting warming to 2°C, on a global level.¹⁶ By 2040, this excess is expected to grow to 190 per cent and 89 per cent respectively. While many governments have pledged to lower their emissions and even set net zero targets, they have not yet made plans to wind down the production of the fossil fuels, which generate most emissions.¹⁷



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Growing inequality in the face of increasing global income is an indication that the gains in real income have been beneficial to the very wealthy in all countries and to the rising middle class in developing countries

We have also witnessed continuous growth in the world economy: doubling since 2000 to US\$66.2 trillion in 2010 and increasing to US\$84.7 trillion in 2020.¹⁸ At the same time, inequality, which has been increasing for more than 70 per cent of the world's population,¹⁹ is expected to rise further on account of the impacts of COVID-19. Growing inequality in the face of increasing global income is an indication that the gains in real income have been beneficial to the very wealthy in all countries and to the rising middle class in developing countries.²⁰ The bleak prospects for low-skilled workers and young people in the labour markets of low-income countries in the aftermath of COVID-19 point to increasing levels of inequality and higher vulnerability to extreme poverty; as between 65 and 75 million more people are estimated to fall into extreme poverty in 2021 compared to pre-pandemic projections.²¹ High rates of inflation globally as well as disputed food supply chains due to the conflict in Ukraine are putting further strains on the lowest rungs of the economic ladder. We cannot envision a bright future for cities when inequality appears to be on the rise globally and extreme poverty looms in certain regions. Chapter 3 discusses what needs to be done to prevent poverty and inequality from becoming permanent features of the future of cities.

Rapid urbanization and the globalized nature of cities have added new layers of urban health risks as the world has increasingly witnessed the spread of zoonotic diseases such as avian influenza, severe acute respiratory syndrome (SARS), Ebola and most recently, COVID-19. As cities seek to recover from the impacts of the pandemic, the UN-Habitat report *Cities and Pandemics: Towards a More Just, Green and Healthy Future* makes a case for a new social contract in the form of universal basic income, universal health coverage and universal housing.²² This proposal is further discussed in this chapter and in Chapter 3.

Demographic responses to COVID-19 indicate a new pattern of secondary cities as subregional hubs that connect the 62 per cent of the world's population living in smaller cities, towns and rural areas with the 22 per cent that live in larger metropolitan regions.²³ Following the outbreak of

the COVID-19 pandemic, many urban dwellers, especially those in large cities, fled. More affluent residents retreated to second homes in the countryside. Middle-class families moved to smaller towns that offered more affordable housing. Low-income residents saw service sector jobs decimated and left in search of economic opportunity. The cumulative effect was a net decline in major cities. For example, United States Census data shows the largest net declines in population from 2020 to 2021 were in Los Angeles County (179,757) and Manhattan (113,642).²⁴ Although such net population declines might be temporary, this reshuffle has implications for the role secondary cities can play in the future as more workers in knowledge-based fields work remotely or adopt hybrid modes of working.

This territorial reorganization raises the question of what will happen with small- and medium-size cities as they become increasingly important in the regional landscape? Will accelerated digitalization prompted by the COVID-19 pandemic undo the economic advantages of large cities?²⁵ On the contrary, can economies of scale and agglomeration effects show their capacity to re-energize new urban activities in the aftermath of shocks and threats?

These concerns raise key questions about the future of cities, especially the kind of cities needed to support humanity in a predominantly urban world. How do we envisage and reimagine the future of cities? What do we want our cities to look like? What are their different possible transitions and trajectories? What are the possible scenarios for growth and development? What are the most desirable outcomes and the likelihood of achieving them?

1.2 Pandemic Lessons for the Future of Cities

The disruptive nature of the COVID-19 pandemic is a stark reminder that urban areas need to be prepared for dynamic and unpredictable futures. The pandemic clearly exposed the soft underbelly of cities and their vulnerability to shocks. Cities across the world were totally unprepared for the magnitude of the economic and social impacts of the pandemic. We live in an age of global threats and disruptions that require concerted action, which can only be achieved in the spirit of solidarity and cooperation, as no single government or multilateral agency can address such threats alone.²⁶ The world must therefore be better prepared to predict, prevent, detect, assess and effectively respond to threats in a highly coordinated manner.²⁷



Subway train passengers with protective masks, Sofia, Bulgaria © Shutterstock

Box 1.1: Five lessons from the COVID-19 pandemic

Reflecting on the nature of and responses to the COVID-19 pandemic helps us filter some key lessons for the urban world, which is likely to witness other epidemics and even pandemics in years to come. As such, cities must be prepared for a dynamic and unpredictable future.

- i. The pandemic crossed territorial boundaries despite border closures. Geographic exclusion and social privilege had limited efficacy. Highly contagious disease teaches us that a threat anywhere is a threat everywhere. Effective response to a global threat calls for multilateral collaboration that complements and reinforces national and local efforts in a spirit of solidarity, mutual respect and cooperation.
- ii. The pandemic reminded us that well-planned cities can better manage contagion when they provide density without residential overcrowding, enhance accessibility, limit urban sprawl and provide room for public green spaces. Integrated urban planning that promotes socio-spatial equity and green, well-provisioned neighbourhoods for people's health and well-being is critical for adaptation and resilience for the future.
- iii. No one level of government and no single ministry, department or agency was able to address the pandemic on its own. The most effective and efficient urban governance framework in the face of dynamic, unpredictable urban futures proved to be multilevel governance with multi-stakeholder collaborations from the micro level (neighbourhood) to the meso level (sectoral) to the macro level (regional to global).
- iv. Effective responses defined the pandemic on a broader perspective beyond the health domain, recognizing the socioeconomic, political and built environment factors that aggravated risks and vulnerabilities. Socio-spatial inequalities manifest in the urban services divide, which presented nodes of weakness in curbing the spread of the virus. Bridging the gap and addressing multidimensional urban poverty and inequalities in access to water, sanitation, basic health, adequate housing and digital tools are crucial for building resilient urban futures.
- v. The post-pandemic city is not the same as the future city. While emergency responses to the pandemic offered us a glimpse of a radical shift in daily urban life, their social and environmental benefits were short-lived. Realizing the green, inclusive, sustainable urban futures will require deliberate long-run transformative interventions closely attuned to the demands of local contexts and backed by adequate resources.

The pandemic revealed and amplified long-standing weaknesses in the social structure of cities, resulting in disproportionate impacts on specific segments of the population, especially vulnerable and marginalized groups. Key lessons emerging from the COVID-19 pandemic are that urban areas must invest in preparedness, which requires developing the economic, social, environmental and institutional resilience to respond to a wide range of shocks, including having contingency plans for the most vulnerable groups (Box 1.1).²⁸

If the world were to experience another pandemic or major threat in the future, would urban areas be sufficiently prepared to respond based on the lessons learned from the COVID-19 pandemic? Would cities have developed a robust

system of resilience to respond to and withstand such a threat? To meet this challenge, urban futures must reduce inequality and poverty; foster productive and inclusive urban economies that provide opportunities for all; and adopt environmental policies and actions that mitigate and adapt to climate change, promote clean energy and protect ecosystems – all of which are facilitated by responsive planning and governance systems in which with finance, innovation and technology play overarching roles.

The unpreparedness of cities to address pandemics and related shocks is an indication that the current process or model of urbanization is inadequate on several grounds. In many contexts, the outcome of this process of urbanization is environmentally, socially and economically

unsustainable.²⁹ Under such conditions, the process is, to some extent, dysfunctional and even erodes the inherent value of urbanization.³⁰ Disease modellers are quick to note that COVID-19 will not be the last pandemic that cities will face; new outbreaks of other pandemics and major health emergencies will occur³¹; cities will experience recessions, natural disasters, armed conflict and social unrest, among other shocks. As has often been repeated over the last two years: a threat anywhere is a threat everywhere and no one is safe until everyone is safe.³²

Our urbanizing world must be adequately equipped to respond effectively to a broader range of shocks and ensure the transition to a more equitable, inclusive, green, resilient and healthy future. If not, millions of city dwellers in different parts of the world will continue to live in a future that is unfolding without the necessary scaffolding against the many threats to humanity that eclipse their dream of a better urban future. It is therefore in the interest of countries that urban futures embody a well-functioning system of cities alongside institutions that can cope with future crises and prepare for a societal reset. Such cities can help galvanize resources from multiple sources to invest in robust health infrastructure as part of city resilience development programmes, including urban development, management and governance.³³

The pandemic has raised the profile of cities even further as being key to building more resilient and inclusive societies, and central to countries' recovery strategies.³⁴ Beyond

the primary concern of the public health emergency and containing the virus to protect societies, as shown in Chapter 7, the pandemic has compelled cities to reconsider how spaces are planned and used, how services are delivered and how equitable development and economic growth can be resumed to achieve more just, inclusive and equitable societies.

The future of cities is one that should embody the fundamental principles of human rights, greater equality, trust, compassion and solidarity. Building economic, social and environmental resilience, including appropriate governance and institutional structures, must be at the heart of the future of cities. Economic resilience with new fiscal sustainability frameworks, societal resilience with universal social protection schemes, climate resilience with greener investments and stronger multilevel collaboration to confront future shocks – these elements must be the main building blocks of a resilient future that can withstand and respond to the various threats and shocks that urban areas face.

1.3 The Diversity of Urban Futures

The future of cities is inextricably linked to the diversity or plurality of the urban context, which varies in terms of the nature and scale of urbanization, demographic size, socio-spatial configuration of settlements, economic composition and linkages to the global economy, degree of informality, culture, local challenges, and local political and institutional

Table 1.2: Urban population and level of urbanization (2015–2050)

Region	Urban population (million)								Percentage urban							
	2015	2020	2025	2030	2035	2040	2045	2050	2015	2020	2025	2030	2035	2040	2045	2050
World	3 981	4 378	4 774	5 167	5 555	5 938	6 312	6 680	53.9	56.2	58.3	60.4	62.5	64.5	66.4	68.4
More developed regions	979	1 003	1 027	1 049	1 070	1 090	1 108	1 124	78.1	79.1	80.2	81.4	82.7	84	85.4	86.6
Less developed regions	3 002	3 375	3 747	4 117	4 485	4 847	5 204	5 556	49	51.7	54.3	56.7	59	61.3	63.4	65.6
Africa	491	587	698	824	966	1 125	1 299	1 489	41.2	43.5	45.9	48.4	50.9	53.6	56.2	58.9
Asia	2 119	2 361	2 589	2 802	2 998	3 176	3 335	3 479	48	51.1	54	56.7	59.2	61.6	63.9	66.2
Europe	547	556	565	572	580	587	593	599	73.9	74.9	76.1	77.5	79	80.6	82.2	83.7
Latin America and the Caribbean	505	539	571	600	626	649	669	685	79.9	81.2	82.4	83.6	84.7	85.8	86.9	87.8
North America	290	304	319	334	349	362	375	386	81.6	82.6	83.6	84.7	85.8	86.9	88	89
Oceania	26	28	30	32	34	36	39	41	68.1	68.2	68.5	68.9	69.4	70.2	71.1	72.1

Source: UNDESA, 2019b.

Table 1.3: Urban rate of change 2015–2050

Region	Average Annual Rate of Change of the Urban Population (per cent)							Entire Period
	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050	2015-2055
World	1.90	1.73	1.58	1.45	1.33	1.22	1.13	1.48
More developed regions	0.50	0.46	0.44	0.40	0.36	0.32	0.28	0.39
Less developed regions	2.34	2.09	1.88	1.71	1.56	1.42	1.31	2.09
Africa	3.58	3.44	3.32	3.19	3.04	2.89	2.71	3.17
Asia	2.16	1.84	1.58	1.35	1.15	0.98	0.84	1.41
Europe	0.35	0.30	0.28	0.26	0.25	0.22	0.17	0.26
Latin America and the Caribbean	1.30	1.15	1.00	0.85	0.72	0.59	0.47	0.87
North America	0.95	0.96	0.92	0.84	0.75	0.67	0.62	0.82
Oceania	1.42	1.30	1.24	1.18	1.15	1.12	1.07	0.89

Source: UNDESA, 2019b.

systems.³⁵ Every major region of the world has its unique features and development outcomes, which must be reflected in policies for achieving better urban futures. Ideally, this diversity implies that every city will have to design its future journey to reflect the unique combination of opportunities and constraints that it faces.³⁶ Urbanization will continue to be a transformative, but uneven process that will require differentiated responses. At the same time, there are areas of convergence across the urban context. Cities create wealth, enhance development, fulfil aspirations, harness human progress and increasingly deploy new technologies to address diverse challenges. The future of cities should reflect to varying degrees the challenges and opportunities that cities face.

This section explores the diversity of urbanization in different contexts with a view to drawing out the implications for the future of cities. The issues to be addressed in the future of cities can be classified into two broad categories: those that affect developed and developing countries. There are overlaps within such simplified categorization, which is not intended to be exhaustive but rather illustrative of some of the trends and challenges of the diversity of the urban context in different settings to which the future of cities must address.³⁷

1.3.1 The state of urbanization in developed regions

While the global urban transition witnessed over the last three decades has been phenomenal, the level, pace and processes driving urbanization are uneven across the world. The process of urbanization is much advanced in the developed

regions of the world where 79 per cent of the population reside in urban areas (Table 1.2). This trend will continue, albeit slowly, as 87 per cent population is expected to be urban by 2050. While the level of urbanization in developed countries is high, the rate of urban population growth is low, declining and even negative in some countries. Urban population is expected to grow at 0.46 per cent annually between 2020 and 2025 and 0.40 per cent between 2030 and 2035 (Table 1.3).

Current and expected urban growth in the developed world will be driven partly by international migration, mainly from developing countries, which accounts for about one-third of urban growth,³⁸ and for 55 per cent of the global migration stock.³⁹ This trend will continue into the foreseeable future since the population in most developing countries is expected to increase in the decades to come, thus placing migration pressure on future generations.⁴⁰ Increasing waves of international migration have meant that urban areas in all parts of the world are increasingly becoming multicultural, which both enriches cities and brings new challenges.

While cities can generate a lower ecological footprint per capita when they follow compact urban development patterns, the high rates of urbanization in developed regions



The future of cities should reflect to varying degrees the challenges and opportunities that cities face

do not always translate to environmentally sustainable urban form. Urban areas in developed regions, particularly the US, have the largest ecological footprints in the world. High levels of resource consumption, widespread dependence on private automobiles, large-scale waste generation and low-density suburban sprawl eroding agricultural land are all key environmental issues for the future of cities in developed regions. Urban densities in developed countries have been declining, thus aggravating the problem of urban sprawl.⁴¹ Findings from a global sample of cities with over 100,000 inhabitants show that between 2000 and 2015, the physical extent of urban areas in North America and Europe grew much faster than their population, thereby consuming more land for urban development.⁴² This trend has profound implications for energy consumption, greenhouse gas emissions, climate change and environmental degradation.

1.3.2 Urban priorities for the future of cities in developed countries

The urban conditions, trends and processes in developed countries suggest certain key issues that should be addressed in the transition to more sustainable urban futures. These are highlighted below and discussed in greater detail in different chapters.

Inequality and social exclusion

Over the past four decades, rising inequality especially in urban areas has been widespread in developed countries. Consequently, social exclusion, urban segregation and persistent pockets of destitution and poverty are increasingly common features in cities of developed countries (Chapter 3). Nonetheless, levels of inequality in developed countries are generally lower than in developing countries, which indicates greater access to public goods and services and the existence of institutions that implement more egalitarian policies. While the levels of inequality across Western Europe have been widening since the 1980s, this region remains the most egalitarian in the world. Conversely, the US has the highest income inequality among developed countries and is currently experiencing its highest levels of inequality in the last 50 years.⁴³ The most unequal US cities have become more unequal, as eight of the ten most unequal cities experienced an increase in their Gini coefficients between 2010 and 2018.⁴⁴



Over the past four decades, rising inequality especially in urban areas has been widespread in developed countries

A key issue to be addressed in cities of developed countries are manifestations of the various forms of exclusion and marginalization that migrants and other minority groups face, many of which have been worsened by the impacts of COVID-19.⁴⁵ Developed countries can address the systemic inequality in urban areas through a wide range of policies aimed at creating more equitable cities as discussed in Chapter 3.

Climate change and environmental issues

Climate change remains a top priority in the global development agenda. Developed and leading industrial countries will have to play a key role in addressing the challenge of climate change as only a handful of countries have strengthened their targets to reduce emissions. In Europe, 70 per cent of cities are in low-lying areas less than ten metres above sea level. Except for the Baltic coastline, a majority of European cities have experienced an increase in sea levels and this risk is projected to increase along with global sea-level rise.⁴⁶ North American cities are also at risk, especially those on the Gulf of Mexico and Atlantic seaboard, with more than 90 cities experiencing regular flooding, a number that is set to double by 2030.⁴⁷ The New Urban Agenda envisions future cities and human settlements that build resilience and reduce their disaster risk while simultaneously promoting clean energy and pursuing sustainable consumption and production patterns in order to protect ecosystems and preserve biodiversity.⁴⁸

Addressing cultural diversity

Growing waves of international migration have meant that urban areas in developed countries are increasingly transformed into heterogeneous, multi-ethnic, multicultural and multilingual spaces. Among the most culturally diverse cities are San Francisco, US; Sydney, Australia; New York; London, UK; Toronto, Canada; and Brussels, Belgium. In these cities, foreign-born residents account for 35–58 per cent of their population.⁴⁹ Megacities in developed countries have become microcosms of the world at large. For instance, the 4 million workers in London speak more than 240 languages.⁵⁰ Migrant populations offer significant creative cultural contributions and open new opportunities for shrinking cities in Europe and North America, which have experienced deindustrialization, ageing populations and low birth rates.⁵¹ Over the past 15 years immigrants have accounted for 47 per cent of the increase in the workforce in the US and 70 per cent in Europe.⁵²

Experience shows that managing diversity occurs at the local level through everyday experiences and encounters. The importance of neighbourhood context and relationships



Repair work in the city to replace water pipes in the city of Samara, Russia © Shutterstock

formed at the micro level are key ingredients for social harmony across racial, ethnic, religious and linguistic backgrounds. In addition, public policies can help integrate new arrivals like migrants, refugees and internally displaced persons into their host communities. Culturally-sensitive design and social supports can strengthen a sense of identity and belonging, thus transforming migration from a potential societal strain into an asset that can lead to urban regeneration and revitalization.

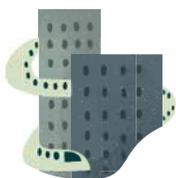
Ageing stock of urban infrastructure

One of the most important needs for all urban futures in developed countries is upgrading and modernization of their ageing stock of physical infrastructure – bridges, power transmission and distribution systems, water and sewerage pipelines, and sustainable transport infrastructure.⁵³ The challenge of ageing infrastructure arises from growth demands, rapid urbanization and development booms. Among developed countries only Australia and Japan have invested sufficiently over the years to meet or exceed their

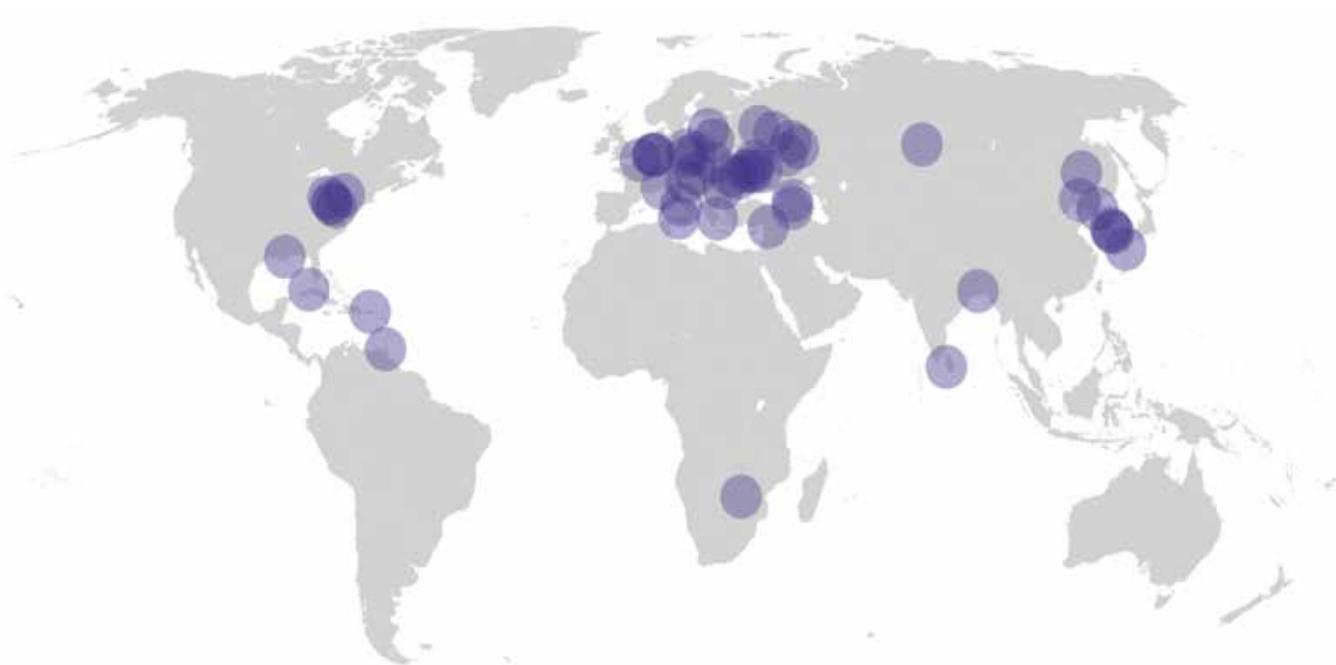
infrastructure needs.⁵⁴ Conversely, Germany, the UK, and the US face major gaps to meet their current urban infrastructure spending commitments.⁵⁵ The city of New York has more than 1,000 miles of water pipe over 100 years old and its ageing sewer system is a major contributing factor to flooding.⁵⁶ London’s iconic public transport system, the Underground, has passed its centennial anniversary and its managers have warned that they may enter a period of “managed decline” in 2023 without national funding commitments.⁵⁷

Shrinking cities

Nearly half of the cities in developed regions are shrinking. Most of the 52 cities globally that have experienced population decline since 2000 are in Europe and North America (Figure 1.2). These cities were home to 59 million people in 2018, down from more than 62 million in 2000. Shrinking cities are the outcome of a decline in the regional economy or cities’ economic base with the population migrating elsewhere. In the US, more than 40 per cent of cities with at least 10,000 residents have lost population between 1980 and 2010.⁵⁸ These cities are located mostly in the deindustrialized region known as the Rust Belt, where population loss has led to high rates of unemployment, blight and violent crime. Unlike in some post-industrial regions of Europe, shrinkage in US conurbations occurs largely in the urban core, while suburban regions continue to grow.⁵⁹



One of the most important needs for all urban futures in developed countries is upgrading and modernization of their ageing stock of physical infrastructure

Figure 1.2: Cities where the population declined between 2000 and 2018

Source: UNDESA, 2018a.

Urban shrinkage generates vast challenges such as how to sustain the cost of under-utilized infrastructure and address the negative effects of urban blight that come with huge swathes of vacant housing units, as well as commercial and industrial facilities. Shrinking cities pose an urban governance challenge of managing decline in a smart way to ensure that public services such as education or healthcare are still available to residents in the face of budget constraints.⁶⁰ However, the low cost of land and abundance of existing building stock also makes shrinking cities places of opportunity for enterprising and creative architects, artists, designers and entrepreneurs.

Ageing population

In addition to shrinking cities, developed countries have experienced population ageing. In Europe, the ratio of the size of the working-age population (aged between 20 and 64 years) relative to the total number of older persons (aged 65 years or over) fell from 3.9 in 2001 to 2.9 by 2020; this ratio is predicted to decrease to 1.6 by 2080.⁶¹ Such demographic shifts can have significant implications for government revenue, pension funds, healthcare and social services. An ageing population can also lead to labour supply shortages and economic decline.⁶² It is therefore critical that these issues are factored into decision-making and planning for the future of cities. In

planning for a growing older population, cities across the region are beginning to support active ageing by creating public spaces, transport and buildings that are accessible for people with restricted mobility.

Economic restructuring

Over the last few decades, developed countries have witnessed the process of industrial relocation as firms seeking to reduce labour and operating costs have relocated to developing countries or to less developed areas within the developed world.⁶³ In many cities, jobs in heavy manufacturing and mining have disappeared entirely on account of deindustrialization, economic restructuring and globalization. Secondary cities in developed countries have been particularly affected by these changes because of their less diversified economies, as they are often dependent on a single sector such as traditional manufacturing or raw material-based industries. These cities have faced challenges in adjusting to the decline in manufacturing as few have successfully revitalized and diversified their economies in order to retain capital, human resource and attract investment.⁶⁴ In the absence of bold economic recovery programmes, the prognosis for this group of cities appears pessimistic. As urban analysts note: “These problems threaten to persist into the future, as declining cities face outmigration and become increasingly disadvantaged and disconnected from their national system of cities”.⁶⁵

1.3.3 The state of urbanization in developing regions

In developing regions, 52 per cent of the population currently reside in urban areas. This figure is expected to grow to 57 per cent in 2030 and to 66 per cent in 2050 (Table 1.1). Developing countries have the fastest rate of urbanization, with an annual urban growth rate averaging 2.1 per cent between 2020 and 2025. The implication of this trend is that future urban growth will take place mainly in the developing regions of Africa and Asia, where the planning systems and public institutions are least equipped to deal with the challenges of rapid urbanization.

Urbanization in the developing regions demonstrates considerable diversity. Latin America and the Caribbean, with 81 per cent of its population living in urban areas, has four of the world's largest megacities: Mexico City, Mexico; São Paulo, Brazil; Buenos Aires, Argentina; and Rio de Janeiro, Brazil. These megacities alone account for 17 per cent of the region's urban population and attract most of the foreign investment.⁶⁶ While cities in the region have become more egalitarian in the last two decades, income inequality remains relatively high. Latin America and the Caribbean is the only region where migration between urban areas is a significant driver of urban growth, accounting for nearly 50 per cent and due to several factors, with the pursuit of livelihoods being the most important.⁶⁷

Africa is the least urbanized, but most rapidly urbanizing, region in the world. Currently, 44 per cent of the region's population resides in urban areas (Table 1.1). By 2035, the region will have half of its population living in cities and will be predominantly urban by 2050 with six in ten persons living in urban areas. Urban growth rates in Africa currently stand at 3.4 per cent. While projected to decline in the years ahead, urban growth in Africa will remain the highest of any region. In many African countries, urbanization is occurring at lower levels of income compared to other developing regions.⁶⁸ This phenomenon has been referred to as the weakening of the historical link between urbanization and prosperity.⁶⁹ Urbanization is also taking place within the context of rising unemployment, financially weak municipal

authorities, weak governance structures, increasing levels of poverty and inequality, proliferation of slums and other forms of vulnerability. These are some of the key issues that will dominate the future of cities in the region.

Asia and the Pacific has 51 per cent of its population living in urban areas and accounts for 54 per cent of the world's urban population.⁷⁰ By 2050, it is expected that about two-thirds of the region's population will be living in urban areas. While Asia is one of the most rapidly urbanizing regions of the world, urban population growth has been declining since the 1980s, from an annual average of 3.83 per cent to the present rate of 1.84 per cent (Table 1.2). The process of urbanization in Asia is driven mainly by rural-urban migration. Urbanization in the region, especially South-East Asia, is strongly linked to economic transition and greater integration into the global economy, as many cities have become recipients of foreign direct investment, mainly in the form of the outsourcing of manufacturing by parent companies in developed countries.⁷¹ Despite the large number of megacities (18 if Japan is included and 16 if excluded), 54 per cent of Asia's urban population live in cities of less than 1 million people, while 16 per cent reside in megacities. This fact is a clear indication that the agenda for the future of cities in the region should in part focus on the key issues relating to secondary cities, in addition to those of megacities.

1.3.4. Urban priorities for the future of cities in developing countries

The diversity of the urban context in developing countries suggest certain key issues that should be addressed in the future of cities. These are briefly described below and discussed in greater detail in different chapters.

Poverty and inequality

As cities in developing countries seek better urban futures, poverty remains a persistent challenge that must be addressed (Chapter 3). It is estimated that one-third of all urban residents are poor, which represents one-quarter of the world's total poor with the majority residing in small cities and towns in developing countries.⁷² Based on historic trends, extreme poverty is projected to decline to 6 per cent by 2030.⁷³ However, COVID-19 has exacerbated poverty levels, thereby leaving the poor further behind and increasing the number of those newly living in poverty.⁷⁴

One projection of the increase in poverty due to COVID-19 estimates that as much as 500 million people or 8 per cent of the world's population fell into poverty.⁷⁵ This decline marks



future urban growth will take place mainly in the developing regions of Africa and Asia, where the planning systems and public institutions are least equipped to deal with the challenges of rapid urbanization

the first increase in global poverty of the last three decades. Countries in developing regions also have the highest levels of inequality. Inequality disproportionately affects vulnerable groups like women and girls, older persons, indigenous people, persons with disabilities, migrants, refugees and people living in poverty, all of whom are excluded from full participation in economic, political and social life (Chapter 3). As shown elsewhere, the outbreak of the COVID-19 pandemic has exacerbated these inequalities.⁷⁶

Infrastructure, housing and the challenge of slums

Cities in developing countries face the challenge of providing adequate infrastructure and basic services, without which a better urban future can be difficult to attain. The provision of infrastructure and basic services in developing countries is still very poor. For the hundreds of millions of low-income and poor households, improved water and sanitation remain a rarity; well-funded public education and quality healthcare are unavailable; and access to safe and affordable transport services, leisure and open space are minimal.⁷⁷ The lowest levels of infrastructure provision are to be found in Africa, where of the urban population, only 54 per cent have access

to safely managed water and only 23 per cent have access to sanitation. For Latin America and the Caribbean, 81 per cent of the region's urban population has access to safely managed water and 40 per cent have access to sanitation.⁷⁸ These averages mask huge intra-urban differences between well-off districts and poor neighbourhoods that lack the most basic of services, all of which contributes to the vulnerability of already marginalized settlements. Investing in infrastructure is therefore an absolute necessity for the future of cities in developing countries.



Cities in developing countries face the challenge of providing adequate infrastructure and basic services, without which a better urban future can be difficult to attain

Affordable and adequate housing remains an illusion for many in developing countries. The inaccessibility of this basic human need is reflected in the growth of slums,⁷⁹



People living in slum, Mumbai, India © Shutterstock

which forms part of the unfinished business of the urban agenda that needs to be addressed going forward especially in Africa and South Asia. Slums are one of the most enduring faces of poverty, inequality, exclusion and deprivation. Slum dwellers must contend with inadequate access to potable water, poor sanitation, overcrowding, poor-quality housing in hazardous locations, insecure tenure, risk of eviction, food insecurity, malnutrition, poor health, unemployment and stigmatization, all of which make them highly vulnerable to COVID-19 and other shocks.⁸⁰

While remarkable progress has been made in reducing the proportion of the world's urban population living in slums from 28 per cent in 2000 to 24 per cent in 2018, more than 1 billion people still live in such settlements with over half of slum dwellers located in East, South-East, Central and South Asia, and 23 per cent in Sub-Saharan Africa.⁸¹ The forces driving the prevalence of slums in developing regions are unplanned urbanization; ineffective planning; lack of affordable housing options for low-income households; dysfunctional urban, land and housing policies; a dearth of housing finance; and poverty and low incomes. All these factors must be addressed decisively and with the political will that they deserve if cities are to meet their housing needs going forward.

Challenge of climate change

Rapidly urbanizing cities in developing countries are more vulnerable to climate change and least able to respond to its effects. They are hampered by limited financial, human and technical resources as well as weak institutions and governance structures for disaster mitigation and preparedness. At the same time, these cities contribute very little to global warming, making their suffering disproportionate. Cities, especially those in warm climates or low-lying coastal areas, face existential threats due to the risks and impacts of climate change and extreme weather events such as increased heatwaves in Delhi, India, and the pervasive flooding in Jakarta, Indonesia, and Durban, South Africa.

In developing countries, the effects of climate change can exacerbate existing urban challenges and make it more difficult to tackle the persistent issues that cities already face, such as poverty, inequality, infrastructure deficits and

housing, among others.⁸² These challenges could make it difficult to achieve certain SDGs, especially those relating to poverty, hunger, health, water, sanitation and ecosystems. The long-term effects of climate change could combine with the short-term impacts of the COVID-19 pandemic to further reverse global development gains.

Youth bulge

Many developing countries are characterized by a significant increase in the proportion of persons aged 15 to 24, which is referred to as the youth bulge. There are 1.19 billion people within this age bracket worldwide with 88 per cent in developing countries in 2015.⁸³ A high youth bulge presents the challenge of youth unemployment, which is two to three times higher than adult unemployment. A youth bulge can represent a potential opportunity to spur social and economic development if countries harness the power of age-structure transformation. The youth bulge can also increase the risk of domestic conflict in an urban context of weak governance, poor economic performance and high levels of inequalities.⁸⁴ A youthful population requires investment in educational, employment training, recreational and community facilities. Countries will also need to integrate various aspects of demographic change in their urban development policies, particularly the youth bulge observed in many developing countries.

Investing in secondary cities

Secondary cities of less than 1 million inhabitants account for 55 per cent of the urban population of the less developed regions of the world.⁸⁵ Indeed, the fastest growing cities are the small and intermediate cities and towns. Despite their demographic importance, planning and policy initiatives in developing countries have focused mainly on large metropolitan areas, thereby further fuelling urban primacy. Residents of secondary cities endure multiple deprivations and infrastructure deficiency on account of this metropolitan bias. The COVID-19 pandemic has demonstrated that secondary cities are vulnerable to these external shocks because of deficits in infrastructure and services.

With adequate planning, management and governance, secondary cities will foster better urban-rural linkages and relieve some of the quality-of-life strain, such as rampant informal settlements, environmental degradation and long commutes, that can be endemic to megacities. As noted earlier, secondary cities served as subregional hubs in supporting post-COVID-19 recovery efforts.⁸⁶ If secondary cities are to form part of the agenda for the future of cities in developing countries, governments must prioritize



Rapidly urbanizing cities in developing countries are more vulnerable to climate change and least able to respond to its effects

investment in infrastructure and service delivery to address these issues and close the widening urban services divide.

1.4 Possible Scenarios for Urban Futures

Though the future cannot be predicted with certainty, the current trends across the key themes covered in this report (urban poverty and inequality, urban economies, urban governance, urban and territorial planning, public health, innovation and technology and building resilience) have significant bearing on the future of cities. Based on the analysis of available data and current trends provided in this Report, the three scenarios of urban futures are possible (Figure 1.3).

1.4.1 The high damage scenario

This is the worst-case scenario that can occur with disastrous consequences for the future of cities. Under the “high damage” scenario, the impacts of the ongoing COVID-19 pandemic as well as global economic uncertainties, environmental challenges, and wars and conflicts in different parts of the world could have long-term impacts on cities in both developed and developing countries. In this scenario, developing regions bear the brunt of this catastrophic damage because of already existing vulnerabilities and structural fragilities as discussed in Chapters 1 and 3.

Under the high damage scenario, if 80 per cent of the economic damage inflicted by the COVID-19 pandemic persists for a decade then the global poverty headcount could increase by 32 per cent or 213 million people by 2030.⁸⁷ Even in 2050 the increase in the number of people living in poverty is projected to be over 200 million.⁸⁸ The repercussions of this scenario have significant gender dimensions: 90 million women and girls were pushed into poverty in 2020, a figure that is expected to reach 105.3 million by 2030. These COVID-19 induced dynamics have lasting implications for the ability of countries to achieve the targets of SDG 1. Currently in most developing countries, the pandemic has weakened the fiscal capacity of cities and subnational governments to tackle poverty and other urban challenges. The sheer amount of homelessness

and concentrated urban poverty in some developed country cities could potentially escalate to alarming levels and marginalized groups such as minorities, indigenous peoples and migrants could endure multiple deprivations for decades to come.

In a worst-case scenario, especially if the global rise in inflation and cost of living does not abate, the impact on urban economies would be disastrous (Chapter 4). For instance, cities in Africa could lose up to two-thirds of their financial resources,⁸⁹ which will make it progressively difficult to meet the basic needs of their population at a time when price hikes have sent the cost of food, energy and commodities soaring. The impact on urban economies will be most intensely felt in cities that are already enduring multiple social, economic, political and environmental fragilities such as such as Juba, South Sudan; Sanaa, Yemen; and Aleppo, Syria, among others. If the impact of the pandemic and global challenges continues unabated, then already weak urban service delivery and governance systems in some of these cities could collapse entirely (Chapter 8). A majority of those in developing regions are already trapped in a vicious cycle of poverty. It will be extremely difficult if not impossible to achieve SDG targets in the face of massive material deprivation, weak urban economies, high unemployment especially among youth, a growing digital divide (Chapter 9), worsening vulnerability to public health crises (Chapter 7), perpetual violent conflict and any additional shocks or stresses. The high damage scenario would create fertile grounds for amplifying these vulnerabilities, making it hard for urban leaders to manage multiple urban crises and promote cities that work for all.

A high damage scenario would also result in a massive reduction in official development assistance to poor countries, which means that less funding could therefore be available for state initiated urban development and infrastructure projects, which in turn will negatively affect the implementation of urban development programmes targeted at improving the lives of ordinary citizens. Under the high damage scenario, urban futures will be characterized by high levels of poverty and inequality, weak urban economic growth especially in poorer regions and insufficient resilience to risks like climate change and pandemics (Chapter 10). If global action against multiple urban challenges fails and this bleak scenario becomes a reality, the credibility of the multilateral system would be compromised, thereby undermining coordination efforts to address urgent and pressing global issues.



in most developing countries, the pandemic has weakened the fiscal capacity of cities and subnational governments to tackle poverty and other urban challenges

Figure 1.3: Possible Scenarios for Urban Futures

Key Themes	Current Trends in Cities	High Damage Scenario	Pessimistic Scenario	Optimistic Scenario
URBAN POVERTY & INEQUALITY	<ul style="list-style-type: none"> Urban poverty and inequality remain a major feature in cities Urban economies vulnerable to shocks and stresses-especially in developing country cities Fragmented and weak institutional frameworks to tackle multiple, complex, and interrelated urban challenges Continuing urban health inequities 	<p>Unimaginable reversal of development gains, particularly in poorer regions resulting in missing of SDG targets</p> <p>Millions could be pushed into extreme poverty-with women, children, migrants, refugees, indigenous peoples, and other disadvantaged groups bearing the brunt of this crisis</p> <p>Political upheavals and pandemics could amplify poverty, food insecurity to unmanageable levels</p> <p>Massive expansion of slum-like conditions in poorer regions, which could expose millions of people to the wrath of public health crises</p> <p>The looming climate emergency could trigger calamitous damage which could generate additional urban crises in both developed and developing country cities. Failure to build climate resilience could be severely damaging to urban economies</p>	<p>“Bad Old Deal”- Characterized by exploitation and perpetual exclusion of informal sector workers, systemic discrimination, and exclusion of the urban poor in urban development agendas</p> <p>Severely weakened urban economies</p> <p>Cities could be locked into cycles of poverty, poor productivity, unhealthy living conditions and potentially become inequality traps for decades</p> <p>‘New’ forms of urban vulnerabilities in the future that would disproportionately affect already disadvantaged groups (e.g. migrants and refugees, slum dwellers, the homeless, women, children, and indigenous people)</p>	<p>Concerted efforts and transformative action to achieve SDG targets and the New Urban Agenda</p> <p>Reprioritization of the most vulnerable and disadvantaged urban populations in urban planning and development, urban governance, technology-based projects and climate action plans</p> <p>Desirable outcomes that have long-term expectations for cities to be equitable and inclusive, productive, green, compact, walkable, and healthy, resilient urban development as called for by the global development agenda relevant to sustainable urbanization.</p>
URBAN ECONOMIES				
CLIMATE CHANGE & CITIES				
URBAN PLANNING				
URBAN HEALTH				
URBAN GOVERNANCE				
INNOVATION & TECHNOLOGY				
BUILDING URBAN RESILIENCE				

Key Actions for A Better Urban Future

Collective and concerted multilateral interventions through tailored support to poor countries to build resilience of cities to multiple crises

Institutional and governance reforms to implement redistributive policies to address escalating urban poverty and inequalities

Prioritization of climate resilience and greening for resilient and sustainable urban futures- **building resilience must be forward looking, multisectoral and inclusive of all stakeholders, especially the poor and most vulnerable**

Investment towards resilient urban economies and productive urban futures in both developed and developing regions

Capacity building for responsive and sustainable urban and territorial planning

Strong linkages between public health and urban interventions, especially in disadvantaged locales such as slums and informal settlements



1.4.2 The pessimistic scenario

This scenario is likely to materialize if cities and subnational governments return to the pre-pandemic business-as-usual approach, what one development practitioner calls the “Bad Old Deal.”⁹⁰ This system is characterized by exploitation and perpetual exclusion of informal sector workers (Chapters 3 and 4), systemic discrimination and exclusion of the urban poor in urban agendas (Chapter 3), overreliance on fossil fuels to support manufacturing industries (Chapter 5), poorly planned and managed urbanization processes particularly in developing regions (Chapter 6), poor prioritization of public health interventions in urban development (Chapter 7), rapid deployment of modern technologies without opportunities for the poor and thereby creating and entrenching digital inequalities (Chapter 9). Collectively, these challenges will undermine the global vision of achieving inclusive, resilient, and sustainable cities where no one is left behind.

The pessimistic scenario could also have dire consequences in regions that already face multiple instabilities. For example, in Africa, more than 20 per cent of the urban population will endure extreme poverty between 2016 and 2030 in countries such as Madagascar, Chad, Central African Republic, South Sudan and Democratic Republic of the Congo.⁹¹ Globally, 1.6 billion people or 20 per cent of the world’s population live in inadequate housing, of which 1 billion reside in slums and informal settlements.⁹² Under these conditions, the goal of eradicating poverty in all its forms by 2030 and leaving no one behind will not be achieved. Without concerted efforts, the pessimistic scenario could lead to new forms of urban vulnerabilities that would disproportionately affect already disadvantaged groups. Moreover, as the climate emergency looms, the resilience of cities to shocks and stresses is being tested, especially those located in coastal regions. There are already warning signs globally and further inaction on these multiple crises could jeopardize the prospects for resilient, thriving and sustainable urban futures. Finally, the revised downward growth rates for 2022 and 2023, brought on by supply chain stresses and the conflict in Ukraine, will continue to cause economic hardship under the pessimistic scenario as households struggle with higher prices for food, energy and basic goods while wages do not keep up with inflation.⁹³



As the climate emergency looms, the resilience of cities to shocks and stresses is being tested, especially those located in coastal regions

1.4.3 The optimistic scenario

The optimistic scenario provides a vision where concerted policy action facilitated by the implementation of the New Urban Agenda as a framework for achieving the SDGs is amplified to make transformative progress in addressing multiple challenges confronting cities in both developed and developing regions. This scenario involves collaborative, well-coordinated and effective multilateral interventions to tackle multidimensional poverty and inequalities (SDG 1 and SDG 10, see Chapter 3), promote vibrant resilient and diversified urban economies and productive urban futures (SDG 8 and SDG 11, see Chapters 4 and 10), build healthy and thriving cities (Chapter 7), strengthen the drive towards green urban futures (Chapter 5), promote well-planned and managed urbanization processes (SDG 11, see Chapter 6) and ensure inclusive digital economies for the future (Chapter 9).

In the optimistic scenario, national and local governments invest in the Decade of Action to reset the urban development path towards a just, resilient, healthy and prosperous urban future. Under this scenario, the world will meet the SDG target of a poverty rate below 3 per cent at the global level in 2045. If countries embark on the SDG Push proposed by the United Nations Development Programme to exceed pre-pandemic development trajectories, then there will be 125 million fewer people in poverty than in the pre-COVID baseline. By 2050, that figure grows to more than 260 million.⁹⁴ Under the optimistic scenario, national governments will embrace peace and diplomacy to resolve their differences rather than pursue military action, especially in instances that have global economic consequences like the conflict in Ukraine, thus alleviating pressure on global energy and food markets. In the optimistic scenario, governments are also successful at managing the COVID-19 pandemic to balance health outcomes with economic activity and citizen rights, thus smoothing out global supply chains.

The optimistic scenario will not materialize automatically. It requires commitment from leaders at the global, regional, national and local levels. Going forward, the drive towards an SDG push in cities must be accompanied by brave commitments to tackle structural inequalities and create conditions that foster social, economic and spatial inclusion to ensure that no one is left behind. If appropriate measures are implemented, the response to the current urban crisis can lead to a collective reprioritization of cities across the world towards shared prosperity, inclusion, productive employment, innovation, environmental sustainability, gender-responsive systems and cohesive community building.

1.5 Visions of Urban Futures

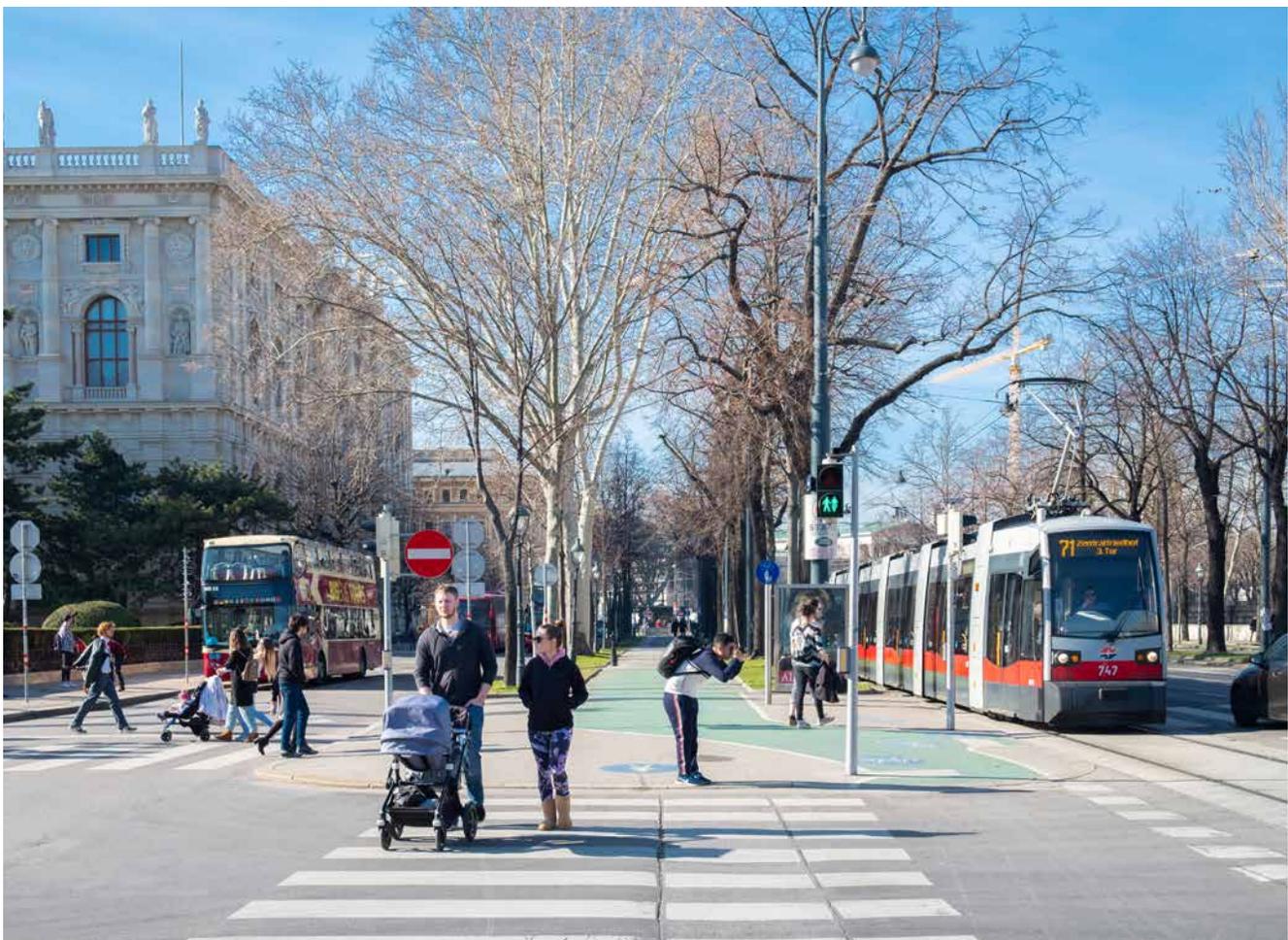
The unprecedented global impacts and disruption triggered by the COVID-19 pandemic – much of which have played out in urban areas – compel us to reimagine the future of cities and reflect on the type of cities that are needed to support humanity in a predominantly urban world. What do we want our cities to look like, especially in the aftermath of the COVID-19 pandemic, and how can cities prepare for an uncertain future? The vision of the future of cities should be guided by the norms of the New Urban Agenda and the 2030 Agenda for Sustainable Development, especially SDG



The vision of the future of cities should be guided by the norms of the New Urban Agenda and the 2030 Agenda for Sustainable Development, especially SDG 11

11. Other global frameworks are also relevant to sustainable urbanization: the Paris Agreement on Climate Change, the Sendai Framework for Disaster Risk Reduction and the Addis Ababa Action Agenda. While this framework was already in place, the COVID-19 pandemic has added a sense of urgency and a demand for a change on the journey towards more sustainable urban futures.

The call in the New Urban Agenda of “cities for all” is a people-centred urban development vision that protects the planet, is age- and gender-responsive, enhances the realization of human rights and fundamental freedoms, facilitates living together, ends all forms of discrimination and violence, reduces social and economic inequalities, and empowers all individuals and communities, while enabling their full and meaningful participation (Box 1.3). Indeed, the New Urban Agenda offers a global vision for people, the planet and long-term prosperity in which urbanization plays a vital role for positive change.



Vienna has a convenient transport system and facilities, Vienna, Austria © Shutterstock

Box 1.3: The Vision of “Cities for All”

The vision of cities for all envisages cities and human settlements that:

- i. Fulfil their social function, including the social and ecological function of land, with a view to progressively achieving the full realization of the right to adequate housing as a component of the right to an adequate standard of living, without discrimination, universal access to safe and affordable drinking water and sanitation, as well as equal access for all to public goods and quality services in areas such as food security and nutrition, health, education, infrastructure, mobility and transportation, energy, air quality and livelihoods.
- ii. Are participatory; promote civic engagement; engender a sense of belonging and ownership among all their inhabitants; prioritize safe, inclusive, accessible, green and quality public spaces friendly for families; enhance social and intergenerational interactions, cultural expressions and political participation, as appropriate; and foster social cohesion, inclusion and safety in peaceful and pluralistic societies, where the needs of all inhabitants are met, recognizing the specific needs of those in vulnerable situations.
- iii. Achieve gender equality and empower all women and girls by ensuring women’s full and effective participation and equal rights in all fields and in leadership at all levels of decision-making; by ensuring decent work and equal pay for equal work, or work of equal value, for all women; and by preventing and eliminating all forms of discrimination, violence and harassment against women and girls in private and public spaces.
- iv. Meet the challenges and opportunities of present and future sustained, inclusive and sustainable economic growth, leveraging urbanization for structural transformation, high productivity, value-added activities and resource efficiency, harnessing local economies, and taking note of the contribution of the informal economy while supporting a sustainable transition to the formal economy.
- v. Fulfil their territorial functions across administrative boundaries, and act as hubs and drivers for balanced, sustainable and integrated urban and territorial development at all levels.
- vi. Promote age- and gender-responsive planning and investment for sustainable, safe and accessible urban mobility for all, and resource-efficient transport systems for passengers and freight, effectively linking people, places, goods, services and economic opportunities.
- vii. Adopt and implement disaster risk reduction and management, reduce vulnerability, build resilience and responsiveness to natural and human-made hazards, and foster mitigation of and adaptation to climate change.
- viii. Protect, conserve, restore and promote their ecosystems, water, natural habitats and biodiversity, minimize their environmental impact, and change to sustainable consumption and production patterns.

Source: United Nations, 2017.

The New Urban Agenda seeks to foster an enabling environment that empowers cities to achieve core developmental, environmental and other commitments.⁹⁵ This approach is a notable departure from previous global agendas as the importance of cross-scale governance rather than top-down implementation is clearly recognized.⁹⁶ A significant precedent is the explicit recognition of the

centrality of subnational entities, particularly cities, in national and international systems for driving sustainability.⁹⁷

The magnitude of the devastation of a global shock such as the current pandemic could not have been anticipated when the New Urban Agenda was adopted in 2016. The pandemic can therefore be seen as a defining feature of our global landscape,

which has major implications for the future of cities and for implementation of the New Urban Agenda. The UN-Habitat report *Cities and Pandemics: Towards a More Just, Green and Healthy Future* identifies some shortfalls of the New Urban Agenda and its implementation regarding COVID-19.⁹⁸ These oversights include insufficient comprehension of the extent of poverty and inequality globally that has since been exposed by the pandemic; the new vulnerabilities generated by an extreme health crisis that were not anticipated, which necessitate a more explicit human rights-based approach grounded on the principles of social and economic justice; and inadequate recognition of the importance of digital access and infrastructure investments necessary for the creation of inclusive and sustainable urban economies.



New Urban Agenda along with its guiding principles, transformative commitments and means of implementation remain pertinent to fostering resilient urban futures

Nonetheless, the New Urban Agenda along with its guiding principles, transformative commitments and means of implementation remain pertinent to fostering resilient urban futures. Indeed, many of the policies and blueprints being proposed to address the impacts of the COVID-19 pandemic in cities are embedded in the New Urban Agenda and other global frameworks relevant to sustainable urbanization. What is then required is the effective implementation of these development frameworks, backed by adequate resources.⁹⁹

1.5.1 New social contract: an emerging vision for the future of cities?

Following the disruptions wrought by the COVID-19 pandemic, an emerging vision of urban futures is that of a more equitable and just city, one that is greener and more knowledge-based and is resilient across multiple dimensions to different types of shocks, crises and catastrophes. The pandemic has forced a renewed reflection on the form and function of cities, connectivity, managed density and prevention of overcrowding. It has also caused the public



an emerging vision of urban futures is that of a more equitable and just city, one that is greener and more knowledge-based and is resilient across multiple dimensions

to acknowledge the significant role of cities and local governments; the importance of the provision of basic services and public goods; and the need to enlarge the fiscal space and capacity of cities and local governments through the devolution of public administration.

In *Cities and Pandemics*, UN-Habitat advocates for a new social contract in the form of universal basic income, universal health coverage and universal housing and basic services. This proposal can be seen as part of an emerging vision for sustainable urban futures, as cities seek to build back differently and recover from the impacts of the pandemic.¹⁰⁰ The pandemic has crystallized the necessity of a rights-based universal social protection framework providing for the basics of health, housing and income for an urban future that is susceptible to disruptions.¹⁰¹ This proposed new social contract articulates the “reciprocal obligations between individuals, households, communities and leaders”¹⁰² on protection, provision and participation in society.¹⁰³ At its core, the new social contract expresses the common agenda of a human society in which every person has inherent dignity and rights. The provision of universal social protection in times of crisis is a litmus test of the strength of a social contract and a key pillar for safeguarding social cohesion.¹⁰⁴

The calls for a new social contract are not new. They were well established before the crisis when only one out of five persons believed that the current social system worked for them.¹⁰⁵ The pandemic provided a watershed moment stirring up heated social and political debates on the efficacy of the current social trade-offs in the face of a more precarious future. In the reality of a weakly supported social contract under intense pressure from the pandemic, there was and continues to be a real threat to social cohesion with questions of state legitimacy growing louder.¹⁰⁶ As argued by UCLG, the 2030 Agenda is a new social contract to co-create a sustainable future for the planet.¹⁰⁷ In this regard, local governments are key players and SDG 11 targets provide a starting point for local governments and partner institutions to launch the kind of initiatives that can deliver sustainable urban futures.

The case for universal basic income

Universal basic income (UBI) provides a pathway out of extreme poverty by creating a mechanism to support economic opportunities and widen social inclusion for vulnerable groups.¹⁰⁸ In UBI schemes, citizens receive regular, guaranteed, broad-based, unconditional income support from the state.¹⁰⁹ Public support for UBI grew from the onset of the pandemic with the growing perception that precarious

economic futures will affect all one way or the other. The pandemic has moved UBI into mainstream public policy as seen by increased support across the political spectrum, including more economically conservative thinkers, that some form of targeted basic income is needed in the face of the economic hardship caused by widespread job losses.¹¹⁰ This idea has already been piloted at the local level, with cities creating models that could be scaled up to the national level.¹¹¹ The possibility of technologically-enabled administration of such systems also contributes to its growing support.¹¹²

There has been an exponential growth in social protection programmes since the onset of COVID-19, with some form of universal income being a key component.¹¹³ By May 2021, there were 3,333 planned or implemented social protection measures in 222 countries and territories. That growth translates to a 32-fold increase since the start of lockdowns in March 2020, when just 103 such schemes were recorded. Of these measures, 42 per cent of the interventions were cash transfers – both conditional and unconditional. There are strong indications that the measures prevented millions from falling into poverty in Latin America.¹¹⁴ The US experience stands out as a strong case for the impact of a guaranteed income in addressing poverty and inequality. The 2020 stimulus check payments kept 11.7 million people from falling into poverty. In fact, the national government payments reduced poverty rates from 11.8 per cent in 2019 to 9.1 per cent in 2020.¹¹⁵ This outcome has provided strong evidence to challenge the common criticism of UBI as having a drag effect on economic prosperity.

The case for universal health coverage

Universal health coverage (UHC) means that all persons have access to sufficient quality healthcare to restore and improve their health when they need it, without undue financial strain.¹¹⁶ The goal of universal health coverage is threefold: equity in access whereby everyone who needs health services should get them, not only those who can pay for them; sufficient quality, which means that health services should be good enough to improve the health of those receiving services; and no undue financial risk, in that the cost of using health services should not be a deterrent to access healthcare (Chapter 7).¹¹⁷



The stark reality is that access to healthcare is far from equitable; at least half of the world's population still do not have full coverage of basic health services

The stark reality is that access to healthcare is far from equitable; at least half of the world's population still do not have full coverage of basic health services, and over 800 million people spend at least 10 per cent of their household budgets on health.¹¹⁸ UHC protects vulnerable groups from falling into poverty for present and even future generations.¹¹⁹ Health care for all encompasses more than access to health services. It entails preventive measures, including healthy urban design that reduces spatial inequality, improves air quality and manages urbanization in a fashion that protects biodiversity and mitigates the spread of zoonotic diseases.¹²⁰

The case for universal housing

The value of adequate housing was proven in its use as a public health strategy for managing the pandemic.¹²¹ As the pandemic persisted, many low-income urban residents found themselves confined in inadequate housing lacking adequate basic services and with no income, risked eviction.¹²² At the height of the pandemic, many countries initiated measures to protect access to housing including moratoriums on evictions, rent subsidies and mortgage relief programmes. Measures were also taken to house the homeless. For instance, in the UK, the Everyone In scheme established in March 2020 temporarily placed 15,000 individuals at risk of lacking shelter in hotel rooms.¹²³ Reducing exposure to health risk by safeguarding access to housing helped the National Health Service cope with demand by flattening the curve for acute cases.¹²⁴ This outcome demonstrated the positive link between access to housing and improved health. Beyond pandemics, access to appropriately designed, inclusive and affordable housing is a useful lever for sustainably realizing the aspirations of urbanization.

The emerging vision of urban futures must also reflect the new normal, which entails new ways of living, working, studying, recreating and socializing; a renewed focus on hygiene and public health; more public spaces; and different forms of social interactions. For instance, at the city level, this shift in urban lifestyles manifests in the increasing importance of the home as a part-time or even full-time workplace for some workers; social distancing, reprioritization and retrofitting of public space (Chapter 6); and increased deployment of innovation and technology (Chapter 9) – all of which show that there are radically different ways of living.¹²⁵

Visions of urban futures should be driven by the realities on the ground, which means embracing the new opportunities to tackle existing and emerging challenges. Positive visions of urban futures will not be realized by chance, but instead facilitated by proactive measures, inclusive policies,

meticulous planning, fit for purpose institutions and public and private sector collaboration. Achieving these visions involves prioritization of actions, selection of strategic interventions, efficient monitoring systems and control of negative forces.

Realizing the urban visions that we want is predicated on addressing the inherent weaknesses of the current models of urbanization and building back differently with emphasis on inclusive policies

Realizing the urban visions that we want is predicated on addressing the inherent weaknesses of the current models of urbanization and building back differently with emphasis on inclusive policies. How do we create economically productive cities without exacerbating inequality? How do we rethink models of city development that are largely driven by private, rather than public, interests? How can the model of city development avoid generating multiple forms of deprivation, social exclusion and digital divides, which ultimately create spatial inequalities and divided cities? How can the model of urbanization be part of the solution to climate change and environmental degradation rather than the cause? The answers to these and many more questions are key to achieving visions of sustainable urban futures.

1.6 Pathways to Sustainable Urban Futures

Urbanization in the twenty-first century is not a singular pathway, but rather encompasses divergent paths to growth and many possible futures, including multiple threats. Despite the range of possibilities, it is important to consider desirable outcomes that make cities more equitable, inclusive, productive, green, compact, walkable and healthy as called for by the relevant components of the global development agenda. The interrelated and mutually reinforcing pathways to sustainable urban futures will be determined by inclusive and transformative policies to eradicate poverty and inequality; produce urban economies that provide opportunities for all; generate greener investment and sustainable consumption and production patterns; set the framework for responsive urban and territorial planning; implement collaborative and integrated systems of urban governance; prioritize public health; deploy inclusive innovation and technology; and build resilience, which enables cities to respond to and withstand a wide range of shocks (Figure 1.4). The effective implementation of the New Urban Agenda serves as an integrating framework for the various interrelated components that constitute these pathways.

Figure 1.4: Pathways to sustainable urban futures



1.6.1. Transformative policies to eradicate poverty and inequality

We cannot envision a bright future for cities when inequality appears to be on the rise globally and poverty is endemic in certain regions (Chapter 3). Without concerted action at all levels, poverty and inequality might be the defining features of the future of cities. Indeed, it has been noted that poverty and inequality could be greater in the post-pandemic era if governments do not take decisive actions.¹²⁶ Inequality in urban areas is undermining the social value of urbanization. A more proactive approach is therefore required to deal with urban inequality and to take advantage of the economic and social opportunities offered by urbanization.¹²⁷ Social protection programmes and redistributive policies are urgently needed and should be mainstreamed in domestic resource frameworks as it is a necessary investment in people, not a burden.¹²⁸ Social protection programmes serve to counter market forces by giving priority to vulnerable and low-income households.



Urban futures will only be equitable for all when the rights of vulnerable groups are protected; gender equality is promoted

Urban futures will only be equitable for all when the rights of vulnerable groups are protected; gender equality is promoted; there is broad-based civic participation; persons are protected against discrimination based on sexual orientation and gender identity; and when marginalized groups like slum dwellers, the homeless, indigenous people, youth, and older persons are empowered. These issues are explored in greater detail in Chapter 3, which also discusses how cities can respond to the challenges of poverty and inequality to ensure that no one is left behind, especially in midst of the multiple crises.

1.6.2 Productive and inclusive urban economies

The urban economy is integral to the future of cities. Given the contribution of the urban economy, the future of many countries will be determined by the productivity of its urban areas. Policies designed to ensure access to productive employment, nurture the talent and skills required to thrive in a modern urban economy, develop endogenous resources, effectively manage urban growth diseconomies, and identify the impediments that prevent cities from maximizing their productivity potential all have a key role to play in building resilient urban economies.¹²⁹ The crises precipitated by the pandemic should be an



Greater economic diversity improves productivity by utilizing existing and potential resources as a basis for building up resilience

opportunity for cities to adopt innovative ways of driving their economies.

Policies should address how cities can diversify their economy to create jobs, enhance access to goods and services, and reduce poverty and inequality. A lack of economic diversity increases the vulnerability and scale of economic decline.¹³⁰ By contrast, greater economic diversity improves productivity by utilizing existing and potential resources as a basis for building up resilience against shocks.¹³¹

Sustainable urban futures are contingent on viable sources of finance. It is important to address how urban futures can be adequately financed in the face of dwindling local government revenues, huge budget deficits and decreasing foreign investment, among other fiscal constraints. The path to long-term sustainable financing in cities requires diversification and mobilization from a wide range of financial resources. Existing urban fiscal systems must be overhauled to ensure locally viable tax revenues. In turn, cities must have access to the financial resources required to meet their needs since they are ideally placed to drive local redistribution programmes and provide social safety nets.¹³² Chapter 4 explores how urban economies can be strengthened and discusses the path to a resilient economic future for cities.

1.6.3 Green investments for sustainable consumption and production patterns

Green investments offer an essential pathway for the future of cities. Lessons from the COVID-19 pandemic show that a green economic recovery can yield significant environmental benefits. Countries and cities can deliver greener urban futures by investing in cleaner and more resilient forms of renewable energy that will create lasting solutions, reduce the risks of future crises and adequately mitigate the impacts of climate change. Cities can transition to sustainable urban futures characterized by net zero GHG emissions and much reduced impacts on the environment. This transition to carbon neutrality must be accompanied by significant shifts to sustainable consumption and production patterns that contribute to the responsible use of resources (Chapter 5). Policies and planning processes that integrate cities into the ecosystems

of subnational regions foster resilience and can contribute to the transition toward a circular economy.¹³³

The pathway to sustainable urban futures requires delivering environmental benefits in a manner that reaches every segment of the population, especially the disadvantaged. The urban poor must be represented, and their needs prioritized, be it about the urban commons, atmospheric commons, public spaces or resource use. In urban areas, nature-based solutions have been associated with positive effects on both urban biodiversity and human health. Investments in ecosystem services and natural infrastructure are not only a cost effective and sustainable way to improve resilience to climate impacts, but also offer employment opportunities like human-made infrastructure investments.¹³⁴ A recent study shows that ecosystem restoration creates 3.7 times as many jobs as oil and gas production per dollar.¹³⁵

1.6.4 Responsive urban and territorial planning

The pandemic exposed the weaknesses of current urban planning in many contexts. This inadequacy is evident from the fragmented response at various levels of governance and across jurisdictional boundaries. Weaknesses of urban planning systems in effectively addressing such crises also reflect failings in governance structures, which underscores the need for urban planning to continuously adjust to the new realities and forces refashioning the global context so that we do not continue along dysfunctional trajectories.¹³⁶

The pathway to better urban futures calls for planning paradigms that are responsive to changes in urban realities – these can play a vital role in addressing multiple and evolving challenges. This kind of urban and territorial planning will improve preparedness and empower cities to adequately respond to all hazards, including public health threats and future systemic shocks.

As a pathway to sustainable urban futures, urban planning can create sustainable neighbourhoods drawing on lessons from the COVID-19 pandemic. There is renewed focus on compact, mixed-use neighbourhoods and the use of non-motorized transport such as cycling and walking. During this period the “15-minute city” emerged as an important concept in making cities more sustainable.¹³⁷ The 15-minute city aims

to ensure that everything urban dwellers need in their day-to-day endeavours can be reached within 15 minutes by foot, bicycle or public transit. This method of living can help cities rebuild and restore their economy while protecting lives and cutting dangerous pollution.¹³⁸ Fundamentally, such proposals require improvements in the quality and density of public transport links between neighbourhoods and to poorly-connected neighbourhoods (urban “weak spots”), among other measures.¹³⁹ Public transport remains integral to achieving cleaner and greener urban futures despite perceptions, now waning, that it is a major gateway for the spread of diseases.¹⁴⁰ This fundamental urban reality means that public transport systems should be made accessible, safe, affordable, efficient and reliable, as well as able to serve diverse demands (Chapter 6).

1.6.5 Prioritization of public health

Public health should be prioritized as a key component of the urban development framework. The pandemic laid bare the weakness of the health systems in many countries. Cities in collaboration with national governments and relevant stakeholders, including the private sector, must invest in health infrastructure as an integral part of city resilience development programmes. Chapter 7 addresses how cities in both developed and developing countries can prioritize public health given its importance to sustainable urban futures.



Public health should be prioritized as a key component of the urban development framework

Health and health disparities must be addressed within a broader societal context, including the quality of the built environment, which plays a key role in health outcomes.¹⁴¹ Given that cities are places where health disparities vary across social groups and neighbourhoods, appropriate urban healthcare must be provided for vulnerable groups – children, women, the poor, ethnic minorities, migrants, the elderly, the homeless and other excluded groups who tend to be disproportionately affected.

Allocation of adequate resources should be made to facilitate the development of twenty-first century health systems, including preparedness and responses that can match and support the demand for future urban healthcare. Rapid urbanization means that an increasing number of people are exposed to risk factors emanating from the social and physical environment, which contributes to increased stress and worse mental health outcomes.¹⁴²



This transition to carbon neutrality must be accompanied by significant shifts to sustainable consumption and production patterns



Public Health Technical Officers collecting samples for COVID-19 tests at Nawong Temple Market, Donmuang, Thailand © Shutterstock

1.6.6 Collaborative and integrated systems of urban governance

Lessons from the COVID-19 pandemic demonstrate the inherent weakness of urban governance frameworks in addressing complex global emergencies. The fragmented response at various levels calls for strong, effective and inclusive institutions as well as a more integrated, cooperative multilevel governance approach. Multilevel governance arrangements are instrumental for creating synergies, reducing overlapping and critical gaps between institutions, and promoting trust and accountability that enhance policy coherence.¹⁴³ Multilevel urban governance strategies have been lauded as an effective mechanism by which cities can respond to a wide range of shocks in several contexts.¹⁴⁴ Chapter 8 discusses how urban governance and institutional structures can drive sustainable urban futures and analyzes some of the governance mechanisms that have been adopted at various scales.

The governance structures required for a resilient urban future must be fit for purpose to address twenty-first century urban challenges. COVID-19 has reinforced an important lesson: no single city, irrespective of its resources, can address the pandemic alone. Rather, cities working with smaller units and higher levels of government were able to respond better to the pandemic. Effective localization of the global agendas and the realization of the economic, social, environmental, health, infrastructural and institutional imperatives underlying sustainable urban futures hinges on multilevel governance arrangements. The localization and implementation of the global agendas with local governments being in the driving seat is central to achieving sustainable urban futures.

Multilevel urban governance strategies have been lauded as an effective mechanism by which cities can respond to a wide range of shocks in several contexts

1.6.7 Inclusive deployment of innovation and technology

The future of cities will be knowledge-based, driven largely by innovation and the widespread use of new technologies and digitization of virtually all facets of urban living. The value of innovation and technology lie in the transition to more sustainable urban futures – more productive, prosperous and resilient urban economies; enhanced social inclusion and equitable policymaking; and environmentally resilient urban development.

In serving as a pathway to sustainable urban futures, it is important that the deployment of innovation and technology is linked to the uniqueness of local urban conditions and trends, including resource availability. What kind of technology can be deployed in different urban contexts in view of the large disparities that exist in the availability and usage of technology solutions? Developments in science and technology will have a major impact on society, but there are uncertainties in the city dimension of these developments (Chapter 9).

While the deployment of innovation and technology has responded to urban challenges in various contexts, it has exposed a deepening digital divide and social inequalities. Since “the future of technology is the future of cities,”¹⁴⁵ it is imperative to address digital exclusion to ensure that the digital revolution in cities is inclusive and leaves no one behind. Some cities are already making strategic investments to ensure that minority groups are not digitally excluded. In 2020, the Toronto District School Board distributed 60,000 devices to its students during the transition to remote learning to ensure that no child is left behind in the learning process.¹⁴⁶



The future of cities will be knowledge-based, driven largely by innovation and the widespread use of new technologies and digitization of virtually all facets of urban living

Putting people at the centre calls for concerted efforts by cities to close the digital divide within cities and across the urban-rural continuum, as well as within various population groups; empower people by building their digital skills; support job creation in the digital sector; use digital platforms to deliver services equitably; protect the most vulnerable online; mobilize new financing models to reach the unconnected; and invest in affordable technology solutions.¹⁴⁷



building resilience is a multisectoral, multidimensional and multi-stakeholder effort, which requires effective collaboration and cooperation across all scales

1.6.8 Building resilience

A central premise of this Report is that building economic, social and environmental resilience, including appropriate governance and institutional structures, must be at the heart of the future of cities. The discussion in the preceding sections feed into the notion of resilience. For instance, measures designed to diversify urban economies to enhance economic resilience should be aligned with the long-term objectives of achieving net zero GHG emissions. As a pathway to sustainable urban futures, building resilience is a multisectoral, multidimensional and multi-stakeholder effort, which requires effective collaboration and cooperation across all scales, as the various dimensions of resilience are interrelated and mutually reinforcing. In practice, well-designed resilience policies can cover these dimensions simultaneously.¹⁴⁸

The notion of resilience should go beyond one that seems to favour simply enduring the status quo without attempting to change the underlying conditions that created such adverse situation in the first place. The idea of challenging resilience is to go beyond building back better to building differently in a manner that does not preserve the existing situation, but rather effects a real change that confronts structural inequalities in an uneven society. Chapter 10 identifies the necessary supportive structure and capacity required to build resilient urban futures in different contexts, including the specific roles of the different levels of government and relevant stakeholders.



The idea of challenging resilience is to go beyond building back better to instead building differently in a manner that does not preserve the existing situation

1.7 Concluding Remarks

World Cities Report 2022: Envisaging the Future of Cities seeks to provide greater clarity and insights into the future of cities based on existing trends, challenges and opportunities, as well as disruptive conditions, including the valuable experience and lessons from the COVID-19 pandemic, and suggest ways that cities can be better prepared to address a wide range of shocks and transition to sustainable urban futures. The Report proposes a state of informed preparedness that provides us with the opportunity to anticipate change, correct the course of action and become more knowledgeable of the different scenarios or possibilities that the future of cities offers. The future certainly matters. As the Organization for Economic Cooperation and Development argues: “It illuminates the ways that policy, strategies and actions can promote desirable futures and help prevent those that we consider undesirable.”¹⁴⁹

This Report builds on two major reports recently published by UN-Habitat: *World Cities Report 2020: The Value of Sustainable Urbanization* and *Cities and Pandemics: Towards a More Just, Green and Healthy Future*. The former convincingly affirms that well-planned, managed, and financed cities and towns create value that can be harnessed for sustainable urban futures and make cities and human settlements more resilient in the face of profound shocks and risky events. The latter provides the basis for much-needed local level action on spatial planning, poverty and inequality, the economy and governance in addressing the impacts of the COVID-19 pandemic as cities seek to build back differently.

This Report seeks to imagine a future of cities that connect to the structural problems and conditions that predate the pandemic. These are hard realities – including the destructive effects of climate change, inequality, poverty and various forms of marginalization and exclusion – and if not adequately addressed, they will continue to shape

our urbanizing world. This Report does not seek to predict the future; rather, it assesses the possibility of alternative futures. Although the future cannot be known with absolute certainty, a wide range of futures is possible. Exploratory predictive analysis can provide insights into the future to ensure rational thinking that can manage uncertainty.

The Report conceptualizes the possible futures for cities in terms of desirable outcomes in which people experience a good quality of life, the global and local commons are respected, rights are guaranteed, collective interests are protected, and a world of equality with differences is tolerated. At the same time, the Report explores negative scenarios that limit the transition to sustainable urban futures. The Report discusses the necessary conditions for the manifestation of brighter urban futures while understanding that urban futures and the paths toward them are neither linear nor independent, but instead are merged and interwoven into multiple realities, all of which are necessary to understand and ensure a better future for all.



Endnotes

1. Moir et al, 2014.
2. UN-Habitat, 2020a.
3. Glaeser and Cutler, 2021.
4. United Nations, 2020a; UN-Habitat, 2021a; Deloitte, 2021; OECD, 2020a.
5. United Nations, 2020a.
6. Deininger et al, 2019.
7. UN-Habitat, 2020a.
8. Sachs et al, 2019.
9. Sachs et al, 2019.
10. UNDESA, 2014a.
11. UNDESA, 2019a.
12. McGowan, 2020.
13. Scripps Institution of Oceanography, 2022.
14. IPCC, 2021.
15. IEA, 2021a.
16. SEI et al, 2021.
17. SEI et al, 2021.
18. World Bank, 2020a.
19. UNDESA, 2020b.
20. UNDESA, 2014a.
21. IMF, 2021.
22. UN-Habitat, 2021a.
23. Cities Alliance, 2021a.
24. United States Census Bureau, 2022.
25. Florida et al, 2020.
26. WHO, 2021a.
27. WHO, 2021a.
28. Puttkamer, 2020.
29. UN-Habitat, 2016a.
30. UN-Habitat, 2016a.
31. Zakaria, 2020.
32. Ghebreyesus and von der Leyen, 2020.
33. UN-Habitat, 2016a.
34. Acuto et al, 2020.
35. UN-Habitat, 2009a.
36. McKinsey and Company, 2018.
37. UN-Habitat, 2016a.
38. UN-Habitat, 2008.
39. IOM, 2019.
40. IMO, 2019.
41. UN-Habitat, 2009.
42. UN-Habitat, 2016a.
43. McGowan, 2020.
44. Bach, 2020.
45. UN-Habitat, 2020a.
46. IPCC, 2019.
47. Fu et al, 2016.
48. United Nations, 2017.
49. UN-Habitat, 2020a.
50. Moir et al, 2014.
51. UCLG, 2019.
52. UN Habitat, 2020a.
53. UN Habitat, 2020a.
54. Woetzel et al, 2017.
55. Woetzel, et al, 2017.
56. UN Habitat, 2020a.
57. Transport for London, 2021.
58. Florida, 2019.
59. Walling et al, 2021.
60. OECD and European Commission, 2020.
61. Eurostat, 2021.
62. Eurostat, 2021.
63. UN-Habitat, 2009.
64. Moir et al, 2014.
65. Moir et al, 2014, p.18.
66. UNDESA, 2018.
67. UN-Habitat, 2021.
68. Freire et al, 2014.
69. Mahendra et al, 2021.
70. UNDESA, 2020a.
71. UN-Habitat, 2020a.
72. Baker, 2008.
73. Sachs et al, 2021.
74. Furceri et al, 2020.
75. Sumner et al, 2020.
76. UN-Habitat, 2020a.
77. UN-Habitat, 2016a.
78. WHO and UNICEF, 2021.
79. UN-Habitat, 2020a.
80. UN-Habitat, 2020a.
81. UN-Habitat, 2020a.
82. Global Commission on Adaptation, 2019.
83. UNDESA, 2015.
84. Urdal, 2004.
85. UNDESA, 2019b.
86. Cities Alliance, 2021a.
87. Broom, 2020.
88. Hughes et al, 2021.
89. UN-Habitat, 2020.
90. Chen, 2020.
91. World Data Lab, 2022.
92. UN-Habitat, 2020a.
93. Gourinchas, 2022.
94. Hughes et al, 2021.
95. UN-Habitat, 2021a.
96. Valencia et al, 2019.
97. Parnell, 2016.; Cohen and Habron, 2018; Valencia et al, 2019.
98. UN-Habitat, 2021a.
99. UN-Habitat, 2018a.
100. UN-Habitat, 2021a.
101. Devereux, 2021; Büscher et al, 2021; Razavi et al, 2020.
102. United Nations, 2021d.
103. Loewe et al, 2021.
104. ILO, 2021.
105. Edelman, 2019.
106. Razavi et al, 2020 Editorial (2020); Auethavornpipat and Tanyag, 2021.
107. UCLG, 2019.
108. Wijngaarde et al, 2021.
109. Francese and Prady, 2018.
110. McGowan, 2020.
111. Gentilini et al, 2020; Hughes, 2018.
112. Nettle et al, 2021.
113. Gentilini et al, 2020.
114. Lustig et al, 2020.
115. United States Census Bureau, 2021.
116. WHO, 2021a.
117. United Nations, 2020b.
118. United Nations, 2020b.
119. WHO, 2021b.
120. UN-Habitat, 2021a.
121. United Nations, 2021a.
122. Devereux and Cuesta, 2021.
123. Bradshaw et al, 2021.
124. Bradshaw et al, 2021.
125. Florida et al, 2020.
126. Stiglitz, 2020.
127. UN-Habitat, 2020a.
128. United Nations, 2021a.
129. UN-Habitat, 2020a.
130. Sharifi and Khavarian-Garmsir, 2020a.
131. OECD, 2020a.
132. Parnell, 2020.
133. UN-Habitat, 2021.
134. OECD (2020a).
135. WRI et al, 2021.
136. UN-Habitat, 2018a.
137. Hadjosif, 2020.
138. Sisson, 2020a.
139. C40 Knowledge Hub, 2021.
140. Sharifi and Khavarian-Garmsir, 2020b; Eltarabily and Elghezanwy, 2020.
141. Joint Research Centre, 2019.; Fouad et al, 2017.
142. Gruebner et al, 2017.
143. UN-Habitat, 2020a.
144. Sharifi and Khavarian-Garmsir, 2020a.
145. Cornell Tech, 2021.
146. CBC, 2020.
147. United Nations, 2021d.
148. OECD, 2020a.
149. OECD, 2017.