11 SUSTAINABLE CITIES AND COMMUNITIES

Rescuing SDG 11 for a Resilient Urban Planet

SDG 11 SYNTHESIS REPORT
HIGH LEVEL POLITICAL FORUM 2023

UNITED NATIONS

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UNITED NATIONS

UN-HABITAT

UNESCO — United Nations Educational, Scientific and Cultural Organization

UNFPA

UN environment

World Health Organization

UNODC — United Nations Office on Drugs and Crime

UNDRR — UN Office for Disaster Risk Reduction

UN Statistical Division (UNSD)

UN-HABITAT

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Foreword

The fate of cities and the fate of humanity are intertwined. In the year 2008, for the first time, the world crossed into a new era of existence with half its population becoming urban. Today, fifteen years later, this transition continues in all regions of the world. Recognising this reality, in 2015, world leaders adopted SDG 11 to make cities and human settlements inclusive, safe, resilient and sustainable. The goal defines priority actions needed to secure sustainable cities and communities where both people and planet will prosper in peace.

Alarmingly, midway through the implementation of the 2030 Agenda, we are off track in progress towards SDG 11. The present report shows that for most of the indicators where data is available, we are far from the targets set in 2015. The risk of not realizing SDG 11 is therefore real. This will have irreversible consequences for everyone, everywhere. Without sustainable cities and communities, it will be difficult to realize the rest of the 2030 Agenda, and many other global agendas.

The ability of most people in the world to live healthy, prosperous and safe lives depends directly on the opportunities or barriers they face where they live— cities and human settlements. As such, the resolve within the 2030 agenda to "*free the human race from the tyranny of poverty and want and to heal and secure our planet*" will be realized largely in cities and human settlements in today's urban planet. The good news is that the urban opportunities to advance the 2030 agenda are immense and can be leveraged. The progress registered with some of the targets of SDG 11 and the innovative actions taken by governments and others to date, as shown in this report, are also promising, and confirm that change is within reach.

Indeed, rescuing SDG 11 is possible but requires transformative shifts to pursue deliberate, scaled and innovative actions that go beyond business-as-usual responses. This calls for new strategies, principles and frameworks that profoundly alter the way in which urban policies and investments are designed, implemented and financed. Transformative shifts further require political will, governance continuity and policy agility to bring about desired changes.

The report therefore calls for four fundamental transformative shifts. First, it is essential to transition from ambition to action by translating the recognition of sustainable urbanization as a global priority into commensurate investments and action, anchored in multilevel, multistakeholder and multilateral approaches. Second, an urban anchor is needed in financing the SDGs including through the SDG stimulus, given the central role of local and urban actors but also the untapped revenues from cities. Third, transforming cities and human settlements based on robust data and the application of digital technology is urgent.

Fourth, the urban opportunity to advance global agendas must not be missed including towards climate priorities.

I extend an appeal to all relevant actors to be seized by the urgency of ensuring that cities and human settlements offer a better life for everyone, everywhere. This report offers a compelling account of why this is more critical than ever and how to realize this vision. It is informed by the fruitful collaboration between UN-Habitat as the overall coordinator of the report and several UN custodian agencies, other UN entities, civil society, academia, United Cities and Local Governments and various other stakeholders and partners, to whom I extend my sincere appreciation.

It is my hope that in the remaining 7 years of the 2030 Agenda, we collectively think, act and plan urban to rescue SDG 11 which impacts the daily lives of billions worldwide. In line with the call to rescue the SDGs, this is the moment to rescue SDG 11 through scaled action and investments. We owe this to both present and future generations whose existence is and remains urban.

Ms. Maimunah Mohd Sharif
Under-Secretary-General and Executive Director, United Nations Human Settlements Programme (UN-Habitat)

Acronyms & Abbreviations

µm	Microns
AMBU	Metropolitan Urban Forest Agency
AMG	Metropolitan Area of Guadalajara
BRT	Bus Rapid Transit
CBD Action Framework	Convention on Biological Diversity Action Framework
COVID-19	Coronavirus Disease 2019
DEGURBA	Degree of Urbanisation
DTP	Diphtheria-Tetanus-Pertussis
EMS	Emergency Management Service
EO Toolkit	Earth Observation Toolkit for Sustainable Cities and Human Settlements
EO4SDG	Earth Observations for the Sustainable Development Goals
ESA	European Space Agency
G20	Group of Twenty
G7	Group of Seven
GDP	Gross Domestic Product
GHSL	Global Human Settlement Layer
GMC	Ga-Mashie Development Committee
HF	Housing First
HLAG-ST	High-Level Advisory Group on Sustainable Transport
IAEG-SDGs	Inter-agency and Expert Group on SDG Indicators
ICLEI	International Council for Local Environmental Initiatives
ICTs	Information and Communication Technologies
IDPs	Internally Displaced Persons
IMEPLAN	Metropolitan Institute of Planning
IPCC	Intergovernmental Panel on Climate Change
ITF	International Transport Forum
LCR	Land Consumption Rate
LCRPGR	Ratio of Land Consumption Rate to Population Growth Rate
LDCs	Least Developed Countries
LLDCs	Landlocked Developing Countries
MCR2030	Making Cities Resilient 2030
MHEWS	Multi-Hazard Early Warning Systems
MSW	Municipal Solid Waste
NCSD	National Concept for Spatial Development
NDCs	Nationally Determined Contributions
NGOs	Non-Governmental Organizations
NIMBYs	Not in My Backyard
NMT	Non-Motorized Transport
NO_2	Nitrogen Dioxide
NUA	New Urban Agenda
NUPs	National Urban Policies

ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OHCHR	Office of the United Nations High Commissioner for Human Rights
OHCHR	United Nations High Commissioner for Human Rights
PGR	Population Growth Rate
PM10	Particulate Matter 10
PM2.5	Particulate Matter 2.5
PPP$	Purchasing Power Parity in constant international dollars
PPPs	Public-Private Partnerships
SDGs	Sustainable Development Goals
SIDS	Small Island Developing States
SoC	State of Conservation
SPOT	Plastic Pollution Origins and Transportation
SUMPs	Sustainable Urban Mobility Plans
SURGe	Sustainable Urban Resilience for the Next Generation
TOD	Transit-Oriented Development
UAS	Unmanned Aerial Systems
UCLG	United Cities and Local Governments
UDTs	Urine-Diversion Toilets
UMF	Urban Monitoring Framework
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Program
UNDRR	United Nations Office for Disaster Risk Reduction
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
VLRs	Voluntary Local Reviews
VNRs	Voluntary National Reviews
WaCT	Waste Wise Cities Tool
WHC	World Heritage Convention
WH-SDP	World Heritage Sustainable Development Policy
WMO	World Meteorological Organization
YIMBY	Yes in My Backyard
YLC	Youth Lead the Change

Acknowledgements

Rescuing SDG 11 for a resilient urban planet

1

The risk of not achieving SDG 11 is high without scaled up action and investments, with considerable ripple impacts for the 2030 Agenda.

2

The quality of life of current and future generations depends on sustainable cities and communities and people's ability to pursue dignified, meaningful, and productive lives.

3

Narrowing the great urban divide is essential for future global resilience. Cities may increasingly become more unequal, but also offer opportunities for greater convergence.

4

Localizing the SDGs is a necessary ingredient to accelerate the 2030 Agenda, through scaled up local action, commitment, and mobilization.

5

Accelerating transformative actions to prevent a collective failure in delivering SDG 11 is imperative. **It is time to think, plan and act urban**.

1.1

Our common future in an urban world

68%

of the world population is expected to be living in cities by 2050 — An estimated 2 billion additional people joining the global urban population

Humanity's present and future are urban. We live in an urban world and now is the time for leaders to think, plan and act urban. Agenda 2030 set out a vision of common global goals that for the first time inextricably linked humanity's future to the fate of cities and human settlements. For millennia, the economic and political transformation of societies has gone hand in hand with the evolution of cities and the rise of urbanization. This arc is no different today. Urbanization—how cities develop and grow—is now central to determining people's quality of life. This premise led to the groundbreaking adoption of SDG 11: to make cities and human settlements inclusive, safe, resilient and sustainable. Creating the conditions for environmentally sustainable, economically prosperous, and socially equitable and just cities and human settlements is of paramount importance for present and future generations.

At its core, SDG 11 sets benchmarks development patterns that facilitate access to basic services, energy, housing, public transportation and open space. This goal inspires relevant actors to plan and manage cities and human settlements alongside civil society and the private sector in a way that offers opportunities for all. An ambitious goal with targets and indicators also provides tools for residents to hold their leaders accountable for delivering better urban services. The availability, accessibility and quality of these services impacts the day-to-day lived experiences of the world's 4.4 billion urban dwellers. SDG 11 also provides guidance for today's towns and small cities, which are tomorrow's larger urban areas.

As one of the 21st century megatrends shaping the planet, urbanization continues in all regions at differing paces.[1] When humanity crossed the 8 billion mark in November 2022, more than half of the world's population—56 per cent—were living in cities (Table 1). This figure is expected to rise to 68 per cent by 2050.[2,3] An estimated 2 billion people are expected to join the global urban population by 2050, with all regions projected to become more urbanized.[4] However, most future urban growth will not further crowd megacities but rather take place in smaller towns and intermediate cities. These human settlements are on the frontlines of urbanization and supporting their ability to achieve SDG 11 is more urgent than ever.

Table 1: 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	5167	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	1108	1124	781	79.1	80.2	81.4	82.7	84	85.4	86.6
Less developed regions	3 002	3 375	3 747	4117	4 485	4847	5 204	5 556	49	51.7	54.3	56.7	59	61.3	63.4	65.6
Africa	491	587	698	824	966	1125	1 299	1 489	41.2	43.5	45.9	48.4	50.9	53.6	56.2	58.9
Asia	2119	2 361	2 589	2 802	2 998	3176	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: World Urbanization Prospects 2018 revision

Note: Estimates and projections of urban populations rely on data from national sources, reflecting varying definitions and criteria. Please see the Data and Methods section of the source provided above for additional details.

Cities need to adequately monitor and prepare for forecasted shifts in their demographic composition. Today, approximately 10 per cent of the global population is over the age of 65. Disabled persons comprise 16 per cent of the population, of which about 80 per cent live in lower- and middle-income countries. By 2050, the number of older persons above 65 is expected to increase to 21 per cent of the total population, with more than two-thirds living in low- and middle-income countries. 70 per cent of the world's total population will live in urban communities, including over two billion older persons and persons with disabilities requiring inclusive and accessible infrastructure and services.

Accessibility is a right and a precondition for the inclusion of persons with disabilities and older persons in society. As the global population ages and the number of persons with disabilities increases, urban planning and service delivery must adapt to respond to the rights and needs of these residents. Universal design principles should be applied to homes, transport infrastructure and public spaces to ensure accessibility for persons with mobility and cognitive challenges. Through recreation and volunteerism, cities must also offer older persons opportunities to avoid social isolation. At the other end of the demographic spectrum, cities host a large share of the youth population, especially in developing countries. If well harnessed, this "youth bulge" can be an asset to boost productivity and prosperity. To garner the benefits of this demographic dividend, cities must be inclusive and offer opportunities for all. The location of housing and the adequacy of transportation options play a key role in determining access to employment for youth. As a result, integrated spatial planning is essential to provide concentrated infrastructure and services to residents of all ages.

Regardless of location, people need an inclusive, safe, resilient and sustainable place to live. As such, the scope of SDG 11 is not limited to cities, but rather encompasses all forms of human settlements. Improvements in basic services and local infrastructure, as well as efforts to reduce environmental pollution and build resilience, impact quality of life regardless of whether a person lives in a megacity, small town or rural village. SDG 11 also recognizes the linkages between urban, peri-urban and rural areas through national and regional development planning, which have the potential to benefit both urban and rural development if supported with the right policies.

A critical predictor of the ability to pursue a healthy, productive and peaceful life is directly tied to *where* someone lives and what that place offers. As a majority share of the global population increasingly resides in urban areas, meeting the parameters of SDG 11 should be viewed as critical for achieving the 2030 Agenda's vision of global development. Cities and human settlements are the locus of opportunity to accelerate progress on the 5 Ps of the SDGs: people, planet, prosperity, peace and partnerships. Delivering on each of these areas will increasingly be determined by how well we plan and manage our cities and human settlements, the effectiveness of local action, and responses to emerging challenges and opportunities. Well-planned, -managed and -governed cities and human settlements with access to sufficient resources are a potent positive force for sustainable development, but inadequate or poor planning, management, governance and investment can easily degrade quality of life.

1.2

SDG 11: Are we failing?

By 2030, as the data in this report shows, we will not meet most/all SDG 11 targets without major shifts in urban policy and investments. SDG 11 has 10 targets and 15 indicators that provide quantified metrics on eliminating slum conditions, providing accessible and affordable transport systems, reducing urban sprawl and increasing civic participation. The targets for SDG 11 also seek to better safeguard cultural and natural heritage, strengthen urban resilience, mitigate

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Goal 11 Indicators Progress Chart
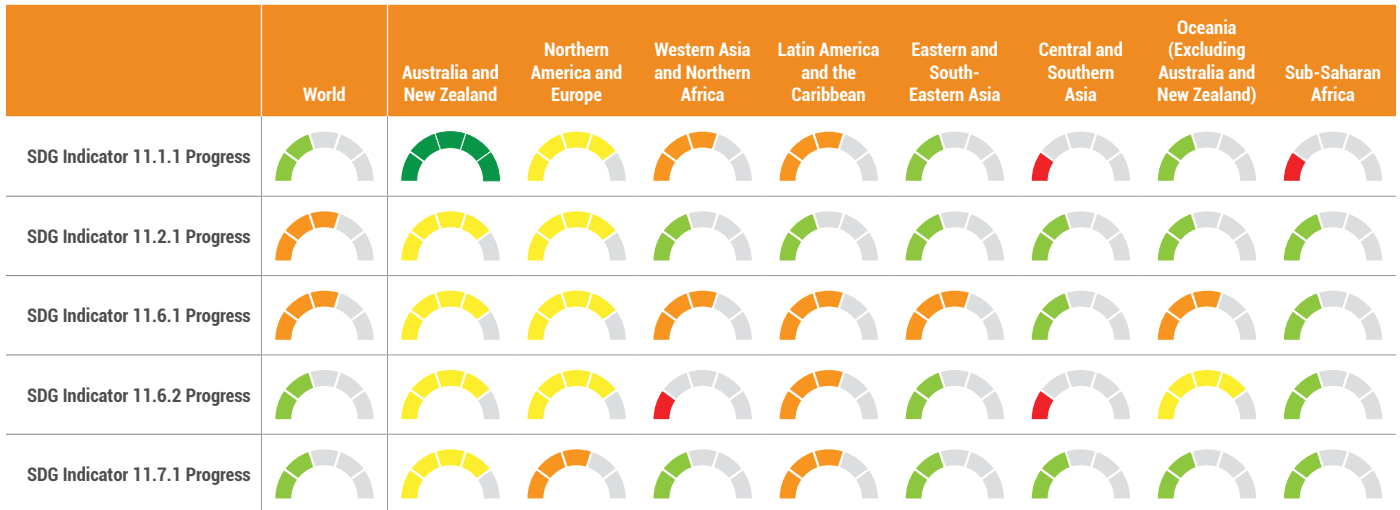
	World	Australia and New Zealand	Northern America and Europe	Western Asia and Northern Africa	Latin America and the Caribbean	Eastern and South-Eastern Asia	Central and Southern Asia	Oceania (Excluding Australia and New Zealand)	Sub-Saharan Africa
SDG Indicator 11.1.1 Progress									
SDG Indicator 11.2.1 Progress									
SDG Indicator 11.6.1 Progress									
SDG Indicator 11.6.2 Progress									
SDG Indicator 11.7.1 Progress									

LEGEND

● Target met or almost met   ● Close to target   ● Moderate distance to target   ● Far from target   ● Very far from target

and adapt to climate change, improve urban air quality, create safe and secure public spaces for all, foster better urban-rural linkages and support sustainable building methods in least developed countries. Eight years into the implementation phase of SDG 11, progress has been limited. While progress has been made toward the SDG 11 targets related to transport and national urban policies, vast gaps remain in areas like tackling the proliferation of slums, inadequate public space and insufficient waste management. Considerable variation is also observed in progress across cities, countries and regions, with some showing important progress as others lag.

This second review of SDG 11 progress, conducted at the midpoint of the implementation of the 2030 Agenda, shows alarming trends. Persistent failure in implementing SDG 11 continues to have catastrophic consequences for people's living conditions across the world. Without progress towards SDG 11, people face health risks, socioeconomic inequalities, safety concerns and environmental degradation, all of which impact their lives on a day-to-day basis. This report highlights areas where progress is lagging, but most importantly, it also aims to understand key barriers impeding progress at the desired scale to meet targets by 2030. It also points to innovative actions and best practices for progress towards inclusive, safe, resilient and sustainable cities and human settlements.

1.3

The great urban divide

The slow, stagnant and at times deteriorating effort towards achieving SDG 11 targets is exacerbated by the growing urban divide. Cities are increasingly becoming grounds where global divergence between haves and have nots manifests, including socioeconomic gaps, spatial fragmentation, climate-driven inequalities and the digital divide. The lack of progress towards attaining SDG 11 is bound to exacerbate these global divides. Therefore, measuring progress on SDG 11 and identifying remedies for action is more important than ever. Further, global cooperation is threatened by the worsening erosion of multilateralism, including in response to peace and security threats. This retreat into polarized geopolitics has far reaching implications for cities and

human settlements. Already, cities are frequently divided by both physical and invisible borders that can lead to exclusion and marginalization.[5] Further entrenchment of divisions, regardless of geographic scale, impedes progress in making cities and human settlements more inclusive, safe, resilient and sustainable.

Divergence is an ever more prominent feature of today's world, with a persistent wealth gap between countries and widening inequalities within countries. Income inequality, for instance, remains substantial with only 10 per cent of the global population currently taking home 52 per cent of income compared to just 8.5 per cent taken home by the poorest half. Within countries, the gap in average income between the top 10 per cent and the bottom 50 per cent of the population has nearly doubled over the last 40 years.[6] These widening disparities, coupled with the global cost-of-living crisis that manifests acutely in consumption oriented urban areas, are likely to lead to social unrest and political instability.

Urban inequality and spatial fragmentation persist globally. This divide is particularly evident when considering access to adequate housing in a world in which 1 billion people live in slums and 318 million people are homeless. Cities worldwide are grappling with income inequality and residential segregation deepening spatial fragmentation. Almost one-quarter or 22 per cent of the European Union's highly urbanized population (112 million) was at risk of falling into poverty or facing social exclusion in 2017.[7] Such fractures shaped and were in many instances exacerbated by the impacts of the COVID-19 pandemic on lives and livelihoods in both developing and developed countries. Spatial fragmentation in turn worsens social exclusion by limiting contact between different income groups. Thus, the way planners, engineers and architects design the urban fabric and how public officials manage physical space in cities is a key factor in determining inequality across multiple dimensions.

How urban growth occurs in less developed regions may widen the gaps between cities and within countries. Highly urbanized and more developed regions are expected to stabilize or experience a decline in urban population growth. The highest population growth is projected to occur in the less developed regions of East Asia, South Asia and sub-Saharan Africa (Table 1).[8] By 2030, most of the world's urban population will be concentrated in less developed regions (about 80 per cent) and those regions will continue to remain dominant in the coming decades to 2050 (83 per cent). Effectively, 56.7 and 65.6 per cent of the population of less developed regions will be living in urban areas by 2030 and 2050, respectively. Towns and small cities (human settlements with less than 250,000 inhabitants) will account for the bulk of global urban growth. Small cities, for instance, cover almost half of city land (about 45 per cent) in low-income countries, a trend that will persist over the coming decades.[9] Fast-paced urban growth in lower income contexts coupled with limited public response capacities, especially in smaller urban areas, risks an outcome of unplanned urbanization rather than producing sustainable cities and human settlements at the global scale. Greater divergence in the quality of urbanization between cities in developed and less developed regions may emerge, expounding broader global inequality. Within countries, differences in growth patterns and public capacities to manage them may further diverge progress across the national spatial system, including in rural areas.

Unbalanced development across territories also deepens the urban-rural divide. Urban areas benefit from more developed infrastructure and services, as well as greater economic opportunities. Rural areas on the other hand are characterized by lower access to infrastructure and services and greater dependence on agriculture. This creates disparities in levels of education, health and income and in other aspects of people's life.

The digital divide remains a persistent issue within and between human settlements. It is mostly in rural areas that many people still lack access to information and communication technologies

Globally, the proportion of individuals using internet in urban areas was 1.8 times higher than that of rural areas in 2022—82 per cent and 46 per cent for urban and rural, respectively

Urban areas were on the front lines of the COVID-19 pandemic with an estimated

90%

of all reported cases

(ICTs) and digital literacy skills, which means they are excluded from the digital world, an essential element for workforce development and inclusion in society. Globally, the proportion of individuals using internet in urban areas was 1.8 times higher than that of rural areas in 2022—82 per cent and 46 per cent for urban and rural, respectively.[10] Cities are often at the forefront of digital innovation and offer greater access and connectivity. However, not everyone benefits from digital technologies and services within urban areas. The recent digitalization of cities shows a growing digital divide for older persons and persons with disabilities who may have greater difficulty accessing key information and services in digital formats. Digital connectivity furthermore remains very limited in informal settlements globally, which means that the people experiencing poverty and living in marginalized communities are also among the most affected by the digital divide. Digital technologies offer enormous opportunities to improve service delivery, participatory governance and disaster-risk reduction, among other components of SDG 11. In order to ensure that the benefits of digitalisation do not lead to further inequalities, digital formats need to be accessible to all and non-digital access to services has to be guaranteed.

Climate-driven inequalities could grow within and between cities. Significant threats to sustainable and resilient urban futures lie in ever-more frequent extreme weather events and disasters. Climate change is intensifying existing hazards and bringing new ones to cities, yet the ability of local, regional and national governments to respond varies widely.[11] Risks and disasters associated with climate change have a role in worsening inequality. Cities are particularly vulnerable to climate change—both because extreme weather events can be especially disruptive to complex urban systems and because so much of the world's urban population lives in low-lying coastal areas. Rising global temperatures cause sea levels to rise; increase the number of extreme weather events such as floods, droughts and storms; and worsen the spread of

tropical diseases. All of these outcomes have costly impacts on the provision of urban basic services, infrastructure and housing, as well as the ability to maintain human livelihoods. Within cities, structural inequalities in infrastructure and services shape the degree of climate-related disaster impacts on communities. Often low-income households in cities face the brunt of direct and indirect impacts. The ability to respond to climate risk is also hugely varied between cities globally, with those in less developed countries often lacking adequate capacities in the face of such crises. Of particular concern are fast-growing smaller towns and cities in developing countries, often with limited capacity to reduce and respond to urban risks and disasters. On the climate front, global commitments and actions remain below expectation and vast differences persist across countries in levels of emissions, as well as adaptation capacities. G20 members alone generate three-quarters of global greenhouse gas emissions (75 per cent) while least developed countries account for far less globally[12].

Conflict and terrorism play out most prominently in urban areas, resulting in worsened security. In both developed and developing countries, threats to peace and security most frequently occur in cities and urban contexts. Cities absorb the impact and fallout from contemporary conflict and war, both directly and indirectly, with consequences for development and governance at the local and national levels. Urban areas are increasingly susceptible to these forms of violence in part due to the likelihood of greater political impact and media visibility afforded by urban conflict. Across developing regions, cities are additionally impacted by the knock-on effects of wars fought in the countryside, as they take on the role of hosting refugees and internally displaced persons. The prevention of violence, conflict and displacement is closely linked to reducing systemic inequalities.

How cities manage risks ultimately shapes the effectiveness of global responses to shocks. As clearly demonstrated by COVID-19, the capacity of cities and local governments to

respond to emerging crises and threats plays a central role in mitigating impacts globally. With an estimated 90 per cent of all reported COVID-19 cases, urban areas were on the front lines of the pandemic.[13] The size of their populations and their high level of global and local interconnectivity made cities and urban areas particularly vulnerable to the spread of the novel coronavirus. For many cities, the COVID-19 health crisis quickly escalated to encompass sudden unemployment, strained public services, abandoned public transport, the need to rapidly repurpose infrastructure, acute financial risk and degraded public safety, all of which disproportionately affect the most vulnerable in our societies. We can expect similar pandemic outbreaks in the future, exposing urban populations to enormous suffering, job losses and adversity. In particular the risk of zoonotic diseases, which account for 75 per cent of all emerging infectious diseases in humans, increases with urbanization and the intrusion of human activities into natural habitats, as pathogens are able to more easily spread to livestock and humans. There is thus an urgent need to rethink and transform cities to respond to the reality of COVID-19 and potential future pandemics, and to pursue a just recover and build back better.[14] 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 21st century cities and their vulnerability to shocks. Likewise, the climate and biodiversity emergencies, violence and armed conflicts, inflationary pressures, displacement and other natural and human-caused disasters manifes most acutely in cities and force local governments to the forefront of the response.

Despite these challenges, sustainable cities and human settlements offer enormous opportunities to mitigate the risks emanating from divergence at various scales. If implemented properly, SDG 11 can garner these immense benefits. The planning and management of cities and other human settlements in a way that offers opportunities for all presents the means for tackling fragmentation from the lowest neighborhood levels to the global scale. How we govern, plan and manage cities and expected urban growth and transitions will be one of the defining moments of the 21st century. It will enhance quality of life and ensure equitable urban dividends for all. Cities and human settlements are thus central for enhanced effectiveness in the pursuit of a better common future for all.

1.4

SDG 11 and beyond: the multiplier effect

Urban areas do not exist in a vacuum and their success is inextricably connected to the contemporary development agenda. Implementing SDG 11 goes beyond meeting its own targets alone. It also requires working simultaneously on other goals within the broader framework of the SDGs and other global agendas. The fate of urban areas globally depends on how well the intertwined risks of climate change, disaster risk, inequality, terrorism, armed conflict and pandemics are tackled. Thus, through its targets and indicators, SDG 11 is closely linked to other global development agendas as articulated in instruments such as the New Urban Agenda, the Sendai Framework for Disaster Risk Reduction, the Paris Agreement on climate change and the Addis Ababa Action Agenda, in addition to other regional agendas and initiatives. SDG 11 is designed to advance progress towards these global agendas as they manifest in cities and other human settlements.

Sustainable cities and human settlements drive better development outcomes. As such, SDG 11 is a potential accelerator to steer progress towards the overall attainment of all SDGs.[15] Investing in SDG 11 brings significant gains in many other goals, and consequently achieving sustainable cities and communities will have a multiplier effect across the 2030 Agenda. Achieving sustainable development requires

Table 2: The multiplier effect of SDG 11

SDGs		How sustainable cities can positively impact all the SDGs
1. Ending poverty		Sustainable and inclusive cities and human settlements reduce poverty through the provision of job opportunities, affordable housing and adequate basic services.
2. Zero hunger		Sustainable urban-rural linkages drive food system transformation that increases access to food through improved transport systems, more diverse food markets and greater economic opportunities for rural areas.
3. Good health and well-being		Sustainable cities lead to better access to health care services and healthy living opportunities, through greater access to clean water, healthy air, quality sanitation and green public spaces.
4. Quality education		Sustainable urban development patterns offers easier access to educational resources and opportunities that are concentrated in cities.
5. Gender equality		Sustainable urbanization offers women greater access to services and better opportunities for education, employment, and social and political participation. Inclusive cities and human settlements consequently lead to greater women's empowerment.
6. Clean water and sanitation		Improving access to basic services and increasing participatory planning in sustainable cities leads to better water and sanitation outcomes.
7. Affordable and clean energy		Sustainable cities improve access to modern and cleaner energy sources, clean cooking solutions and energy-efficient technologies.
8. Decent work and economic growth		Cities unlock opportunities for economic growth and employment by providing access to broad and diverse job markets.
9. Industry, innovation and infrastructure		Due to agglomeration economy effects, urban areas are the site of innovation and enhance industrialization and infrastructure development.
10. Reduced inequalities		Sustainable urbanization patterns reduce inequalities through policies and legislation that address the needs of deprived neighbourhoods and the informal sector.
12. Responsible consumption and production		Well-planned, -managed and -governed cities foster the implementation of sustainable patterns of consumption and production through circular economy initiatives and policies to reduce waste streams.
13. Climate action		Sustainable cities are a main driver of climate action through the promotion of low-carbon development patterns.
14. Life below water		Nearly every city is situated in a watershed, presenting opportunities to safeguard life below water, particularly with proper waste management that prevents waterborne pollution and green infrastructure development that restores coastal habitat.
15. Life on land		Compact development patterns facilitate land conservation for ecosystem preservation while integrating green spaces in urban areas promotes biodiversity.
16. Peace, justice and strong institutions		Building peaceful and just cities can help tackle inequities and strengthening institutions.
17. Partnerships for the goals		Cities are where diverse groups and stakeholders convene to bring partners together in the pursuit of sustainable development.

addressing interrelated challenges in cities, including poverty, inadequate infrastructure, poor health institutions, climate change and other negative environmental impacts, as well as inadequate access to safe water and sanitation. SDG 11 recognizes the integrative and transformative role that cities play in the achievement of sustainable development, and this is also further expounded under the New Urban Agenda (NUA) and the regional and national a of holistic urban agendas.

The interconnectedness between SDG 11 and the other SDGs is an opportunity to be leveraged through policy measures integrating a clear spatial perspective. Place-based policies are essential for people-focused outcomes to be attained through the SDGs, as opposed to many national policies that tend to be spatially blind. The implementation of SDGs should be synchronized at the local, national and global levels for the attainment of sustainable development. In addition, about one-third of the 234 indicators that are part of the global monitoring framework for the SDGs can be measured at the urban level, making cities and local action an important aspect for interventions and tracking progress towards sustainable development. Table 1 highlights the multiplier effect of SDG 11 and how the goal benefits SDGs across the entire development agenda.

In addition, the role of local actors extends beyond SDG 11 to all 17 SDGs. Cities have demonstrated that they are well positioned to mobilize actors for sustainable development. They have been pioneers in the pursuit of sustainable development by promoting initiatives associated with issues covered by all the SDGs. While local governments play a key role, they cannot meet the scale of the challenge alone. National frameworks and policies as well as collaborations with civil society and the private sector are essential in these efforts. Furthermore, local governments should be properly empowered and resourced to tackle all sustainable development issues at scale. Whether or not local governments

possess adequate financial and legal means will determine whether the SDGs will fail or succeed.

Along the development agenda, implementing SDG 11 also benefits the realization of fundamental human rights, especially the right to a clean, healthy and sustainable environment; cultural rights; the right to adequate housing; and the human right to water and sanitation. Local governments are at the forefront of creating cities for all, thereby empowering individuals and communities. A rights-based approach towards designing people-centric cities ensures the protection and promotion of human rights of all constituents in the city.[16] The SDG mantra "leave no one behind" has a corollary in SDG 11: "leave no place behind" envisions a transformative opportunity to reduce the inequalities and vulnerabilities that hinder access to basic services, resources and equal opportunities in cities.

Mathare slum in Nairobi, Kenya © Julius Mwelu/UN-Habitat

Box 1: The power of Voluntary Local Reviews to accelerate the SDGs

Every year at the High-level Political Forum on Sustainable Development, member states prepare Voluntary National Reviews in which they assess national progress towards a set number of SDGs. In 2023, member states will measure their progress on SDGs 6 (clean water and sanitation), 7 (affordable and clean energy), 9 (industry, innovation and infrastructure), and 17 (partnership for the Goals), in addition to SDG 11.

Recognizing the importance of local government action in achieving the SDGs, UN-Habitat and its partners have developed a set of tools to enhance SDG localization. The most prominent of these tools are the Voluntary Local Reviews (VLR) in which local governments monitor and report on SDG achievement. Since 2018 when New York City prepared the world's first VLR, more than 218* reviews have been produced by local and regional governments worldwide who measure their progress towards the SDGs in the same manner as their national counterparts.

VLRs have since become a major mechanism by which cities can monitor the state of localization of the SDGs in their territories. They have also evolved as an innovative tool by and for cities. The exercise of preparing a VLR forces local governments to investigate whether their own data-collection systems map onto the SDGs and if not, how to begin collecting such data. In this way, VLRs have proven to be a powerful accelerator of SDG localization. They promote evidence-based policies, reflect on the challenges and opportunities of the specific territory, and provide a common vision as well as an entry point for long-term planning strategies towards sustainable development. In addition, VLRs foster peer-to-peer learning, as well as collaboration locally and across the different levels of governance.

VLRs directly contribute to the achievement of the SDGs, especially through evaluation and monitoring processes, by demonstrating the political commitment of local and regional governments. They also enable civic participation, which builds trust in government and identifies priority areas for local sustainable action, as they can target the specific needs and priorities of communities. VLRs are becoming the bridge between the global vision and local actions that integrate widespread stakeholder engagement as a foundation. SDG reporting from the local level is becoming widely recognized as an inspiring and influential tool for stimulating bottom-up transformations.

Many VLRs have reported on SDG 11 given the relevance of the topic. Specifically, out of the 179 VLRs published as of February 2023, 150 have reported on Goal 11. Throughout the reports, local and regional governments are displaying their commitment and advancement on the implementation of SDG 11, supporting their explanation with key data as well as with good practices and examples that showcase the challenges and opportunities of achieving this specific goal in the territory in question.

*Data as of June 19, 2023

1.5

The power of localization

SDG localization is the process of translating the Global Goals and targets into reality at the local level, in coherence with national frameworks and in line with communities' priorities. Indeed, local action in defining, implementing and monitoring is a precondition for delivering the promise of the SDGs. Some of the most critical efforts and investments to implement the commitments made in the SDGs occur at the local level. Local and regional governments are the closest to the people by delivering public services, infrastructure and opportunities to their constituents. As such, the shared vision of leaving no place and no one behind requires interventions at the local scale. Therefore,

progress towards the SDGs more broadly lies in the ability of countries and cities to localize the goals and put in place local programs and mechanisms accordingly. Moreover, SDG localization is also a vehicle that has channeled solidarity between local and regional governments by giving them a shared agenda upon which to deliver.

The power of localization has also gained strong recognition in the United Nations system. In "Our Common Agenda," the Secretary-General called for the establishment of an Advisory Group of Local and Regional Governments in an effort to strengthen collaboration with subnational authorities and promote inclusive multilateralism.[17] This initiative, which builds on the recommendations of the UN Taskforce on the Future of Cities and the Global Taskforce of

Local and Regional Governments, was further reiterated by the High-Level Advisory Board on Effective Multilateralism, also created by the Secretary-General.[18] Furthermore, acknowledging the importance of local action for achieving sustainable development, the United Nations recently launched the Local2030 Coalition, which acts as a platform and network designed to support and accelerate local-level delivery of the 2030 Agenda and its 17 Sustainable Development Goals. This coalition is also expected to strengthen multilevel governance, which lies at the core of the inclusive and effective multilateralism that is needed to enhance global cooperation to tackle common challenges.

1.6

Breaking new ground: centering the urban question in global agendas

The New Urban Agenda is the roadmap to ensure urbanization is leveraged to attain global development agendas. It is the first internationally agreed document detailing the implementation framework for the urban dimension of the SDGs. General Assembly resolution 75/224 (2020) highlights the contribution of the New Urban Agenda to the localization of the 2030 Agenda for Sustainable Development. It builds specifically on SDG 11, focusing on cities and human settlements as vehicles for the pursuit of global sustainable development. There are substantive linkages between SDG 11 and the New Urban Agenda, but also stronger linkages between the agenda and other SDG goals.

As a comprehensive, action-oriented framework, the New Urban Agenda defines ways in which better planning, design, management, governance and finance will allow cities to accelerate achievement of all the SDGs. It addresses a wide range of actions and avenues that are necessary for making cities spatially effective for sustainable development and details strategic actions necessary for ensuring that cities and human settlements support and facilitate the implementation of the SDGs. For example,

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Box 2: High-Level Meeting on the Implementation of the New Urban Agenda

In his summary of the High-Level Meeting, the President of the General Assembly noted that urbanization is a defining feature of our planet, up to 65 per cent of SDG targets depend on actions in cities and most SDG indicators are strongly linked to Goal 11.

He further highlighted five areas of sustainable urbanization in particular as part of enhanced New Urban Agenda implementation:

a. *The provision of adequate and affordable housing* as among key social security measures during and after COVID-19, given vast and persistent housing deficits, inequalities and deprivations globally.

b. *Urban prosperity and sustainable finance* given the gaps faced by national and local governments elevating the urgency of mobilizing resources for NUA implementation through enhanced endogenous resources and revenues, decentralization, and land value capture to enable urban economic growth, among others.

c. *Urban displacement and crises* recognizing that lack of safety and security has undermined the ability of countries and cities to implement the NUA.

d. *Urban climate action*

e. *Localization of SDGs*

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the NUA clearly articulates strategic spatial and governance frameworks such as national urban policies, legislation, spatial planning, and local finances, which create a framework for the implementation of SDG 11. Mechanisms of how effectively we advance the NUA will have implications for achieving the 2030 Agenda, and hence require close alignment in the implementation of both agendas.

Recognizing the central role of the New Urban Agenda as an accelerator for global sustainable development, the UN General Assembly convened a High-Level Meeting on 28 April 2022 to consider progress on NUA implementation. The meeting brought together various stakeholders to refocus efforts on urban challenges and provide Member States with concrete policy guidance for advancing sustainable urban development.

The urban agenda has gained increased recognition in several other global forums in

recent years. In 2021, UN-Habitat supported the establishment of a G20 Platform on Intermediary Cities and SDG Localization. In 2022, Germany hosted the first-ever G7 Ministers' Meeting on Urban Development. With support from UN-Habitat, ICLEI and the Organization for Economic Cooperation and Development, the G7 Leaders' Communiqué mentioned sustainable urbanization for the first time. In addition, the Commonwealth Heads of Government Meeting put sustainable urbanization on their agenda for the first time in 2022, following the launch of the Commonwealth Sustainable Cities Initiative and the Call to Action on Sustainable Urbanization across the Commonwealth, both supported by UN-Habitat. At the closure of the 2022 meeting, all 53 Commonwealth countries adopted a declaration prioritizing a greater focus on sustainable urbanization to ensure livable cities and human settlements. Further, the United Nations Climate Change Conference of Parties 27 (COP27) Presidency in Egypt convened the first ministerial meeting on urbanization and climate change in November 2022, bringing together ministers of housing, urban development, environment, and climate change as well as the representatives of local governments. The COP27 ministerial meeting launched the Sustainable Urban Resilience for the Next Generation (SURGe) initiative, which will support the achievement of sustainable and resilient urban systems through the implementation of the climate agenda within cities by unlocking urban climate finance and providing capacity building. In addition, the Convention on Biological Diversity Conference of Parties 15 (COP15) elevated the role of sustainable urban development in the CBD Action Framework.

All 53 Commonwealth countries adopted a declaration prioritizing a greater focus on sustainable urbanization to ensure livable cities and human settlements

1.7

A call to action: how to prevent a collective failure

Our efforts to implement the 2030 Agenda are off track and much is at stake if we fail. The consequences of not achieving SDG 11 in particular are immense, directly impacting billions of people's daily lives. When urban challenges are left unaddressed, they escalate into global threats that spill over across national borders. We need to prevent the disastrous consequences ahead of us by changing the way we plan, manage and govern our human settlements. To avoid a collective failure and rescue Agenda 2030, actions need to be taken now and at scale, since the magnitude of the challenges we face requires a comparable level of action.

Across the globe, people daily bear the brunt of our failure to fully implement SDG 11. Hundreds of millions live in deprived conditions in both developed and less developed regions. Many people are forced to live on the streets, and homelessness has devastating impacts on social ties, health status and employment levels. Traffic and congestion have become common in many cities across the globe, as inadequate transport systems exacerbate inequalities in access to job opportunities, public spaces and basic needs. An increasing number of people are impacted by toxic air pollution and unsafe drinking water. Moreover, preparedness and resilience efforts are not sufficient and natural disasters continue to put cities in the bullseye, leading to the loss of lives and livelihoods. Making cities and human settlements inclusive, safe, resilient and sustainable is about improving the lives of all of us and ensuring our better future.

In "Our Common Agenda," the Secretary-General has called for a new social contract that will address the pressing issues of inadequate services and infrastructure. Finding solutions that provide adequate housing and basic services are at the core of SDG 11 and serve as an integral part of this renewed contract between governments and their citizens. Crucially, local governments play a vital role in driving the necessary changes to implement the new social contract. In his report, the Secretary-General also highlights the importance of taking actions that benefit future generations, emphasizing that preventing failure is a duty we owe to those who come after us. With lock-in effects particularly

evident in spatial development, the shape of our human settlements and the scope of the ills they face today will have profound impacts for generations to come. Therefore, SDG 11 is key to integrate the shape of cities and human settlements into long-term planning and create a sense of solidarity with humanity's future.

Halfway through the implementation of the 2030 Agenda, this report issues a call to action for transformative shifts. It puts forward solutions to prevent a collective failure, including innovations and working practices that will boost progress towards sustainable cities and communities. These recommendations can also be leveraged as two milestones approach. First, this report can inform the upcoming SDG Summit in September

2023, where Member States will review the state of the SDGs and identify necessary transformative and accelerated actions for achieving all the goals. This report precisely highlights key policy implications and opportunities ahead to accelerate progress towards SDG 11 and the whole of Agenda 2030 for a better urban future. Second, this report can help prepare towards the Summit of the Future in September 2024, which will aim to forge a new global consensus on what our future will look like. As stated in the first line of this chapter, the future of humanity is urban. Thus, finding effective solutions to urban issues is an essential first step for tackling global challenges in the common pursuit to leave no one and no place behind.

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02

Uneven Progress Towards SDG 11

OVERVIEW

This chapter reviews the uneven progress that the global community has made towards the attainment of Sustainable Development Goal 11 since 2018. At the midpoint stage of the 2030 Agenda, a progress report is critical in order to determine which targets are lagging and identify key opportunities to accelerate success. Unfortunately, a status assessment to date indicates there is a high possibility of SDG 11 not being achieved in the next seven years unless Member States and the global community significantly and urgently implement and scale up policies, initiatives and investments that accelerate progress towards the 10 targets behind SDG 11. This push for progress during the second half of the 2030 Agenda's timeline should be anchored in multi-level partnerships and reflect the principle of leaving no one and no place behind.

QUICK FACTS

The world is far from achieving the targets set out in SDG 11. Only two of the four targets with adequate data to assess current progress show "moderate distance to target," which represents overall scores ranging from 50–75 per cent of progress achievement. The other half of the targets are identified as being "far from target," which represents overall progress scores ranging from 25–50 per cent.[1]

Substantial regional variations prevail, with Sub-Saharan Africa and Central and Southern Asia lagging in most targets. Australia and New Zealand and Northern America and Europe are close to meeting a majority of the targets.

Improving slum-like housing conditions is a core component of SDG 11. Only one region fully met indicator 11.1.1 on slums, a worrying trend that suggests real risks of not realizing SDG 11 in the next seven years.

Figure 3.1: Current status of SDG 11 targets[2]

Goal 11 Indicators Progress Chart

	World	Australia and New Zealand	Northern America and Europe	Western Asia and Northern Africa	Latin America and the Caribbean	Eastern and South-Eastern Asia	Central and Southern Asia	Oceania (Excluding Australia and New Zealand)	Sub-Saharan Africa
SDG Indicator 11.1.1 Progress									
SDG Indicator 11.2.1 Progress									
SDG Indicator 11.6.1 Progress									
SDG Indicator 11.6.2 Progress									
SDG Indicator 11.7.1 Progress									

LEGEND

● Target met or almost met   ● Close to target   ● Moderate distance to target   ● Far from target   ● Very far from target

Despite the overall lack of progress towards attainment of SDG 11, and the urgent call for accelerated actions, analysis of trends since 2018 also reveals key markers of progress that must be acknowledged. Through efforts of Member States; UN agencies; national, subnational and local governments; civil society; academia; donors and the larger global community, this report is able to draw on an ever-growing number of initiatives aimed at advancing attainment of sustainable cities and human settlements, ranging from enhanced data production to strategic partnerships and new investments and programmes within cities that offer multiplier effects on the advancement of SDG 11. Throughout this chapter, we highlight some of these initiatives from across the globe.

Perhaps the most notable area of progress for SDG 11 at the global level has been of the significant improvements in data production and monitoring progress, which is reflected in the status of many SDG 11 indictors that are now classified as Tier I and II by the Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs), as well as increasing number of countries and cities producing data-rich voluntary national and local reviews. In the next section, we draw on data and case studies to review progress along each SDG 11 target and indicator, organized into five elements: Quick facts, progress synopsis, global trends and conditions, bottlenecks to progress, and highlights from promising interventions.

2.0

Summary of major achievements per target

Target 11.1
By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums

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Indicator 11.1.1: Proportion of urban population living in slums, informal settlements or inadequate housing.

Quick facts

1. In aggregate the world remains far off the mark from reaching this target in terms of reducing the proportion and absolute numbers of slum dwellers, with limited or no progress in 2014-2020.

2. More than 1.6 billion people are estimated to be affected by different forms of housing inadequacy, of which close to 1.1 billion reside in slums and informal settlements.

3. The share of urban population living in slums and informal settlements continued to decline, but the absolute number is on the rise. In effect, the world is producing new slum dwellers faster than it can address existing slums.

4. 165 million more slum dwellers have emerged globally over 20 years, reaching over 1.1 billion in 2020.

5. The rate of decline in slum proportions slowed down over the period 2010-2020, against an increasing rate of change in the actual number of people living in slums, which points to a general worsening in the performance of indicator 11.1.1.

6. Countries in and emerging from conflict have seen the largest rise in slum population.

7. Five regions are far or very far from target in reducing the proportion of slum dwellers (East and South Eastern Asia, Central and Southern Asia, Oceania and sub-Saharan Africa).

8. Four regions are on track to reduce the proportion of slums dwellers as they are close to target or the target has been met (Australia and New Zealand, North America and Europe, Western Asia and North Africa, Latin America and the Caribbean).

Progress Synopsis

SDG target 11.1 reflects a commitment to ensure universal provision of adequate housing for all people in all places, along with the associated benefits of a decent quality of life. Almost six decades ago, this aspiration was documented in the International Covenant on Economic, Social and Cultural Rights (article 11.1), a legally binding instrument which recognized the right of everyone to an adequate standard of living, including adequate food, clothing, and housing, and to the continuous improvement of living conditions. Making good on the right to adequate housing is a critical lever for accelerating progress on the 2030 Agenda as stable housing facilitates better access to education, health care, public amenities and employment opportunities, in turn reducing poverty (Goal 1), improving health (Goal 3) and creating more equality (Goal 10).

More than 1.6 billion people are estimated to be affected by different forms of housing inadequacy, of which close to 1.1 billion reside in slums and informal settlements

A woman peeps through a window in Madagascar. 2008. © UN-Habitat

This report's progress review on SDG target 11.1 centres on three key components of indicator 11.1.1, namely slums, informal settlements and inadequate housing. For housing to be "adequate" several conditions must be met: secure tenure, solid construction, safe materials, accessible design, affordable pricing, cultural relevance and nearby infrastructure and public services. "Slums" are defined as human settlements that lack tenure security, need improved water supply or sanitation, suffer from overcrowding and contain poor durability structures. "Informality" refers to some form of irregularity or illegality in construction or occupation while not necessarily implying poor housing quality.

Overall, the world is far from achieving SDG target 11.1. Assessing the trends for indicator 11.1.1 shows a unique scenario of simultaneous progress and falling short of the proportion of the global population living in households categorized as slums and informal settlements is declining, but the absolute number of these populations is increasing. Assessing progress towards target 11.1 is thus two-fold and any conclusions must take into consideration both the proportional shares of the urban population who live in slums and informal settlements and the absolute changes in population who live in these settlements (Figure 3.1.1).

Figure 3.1.1: Current status and trends between 2014 – 2020 based on proportion of urban population living in slums and informal settlements
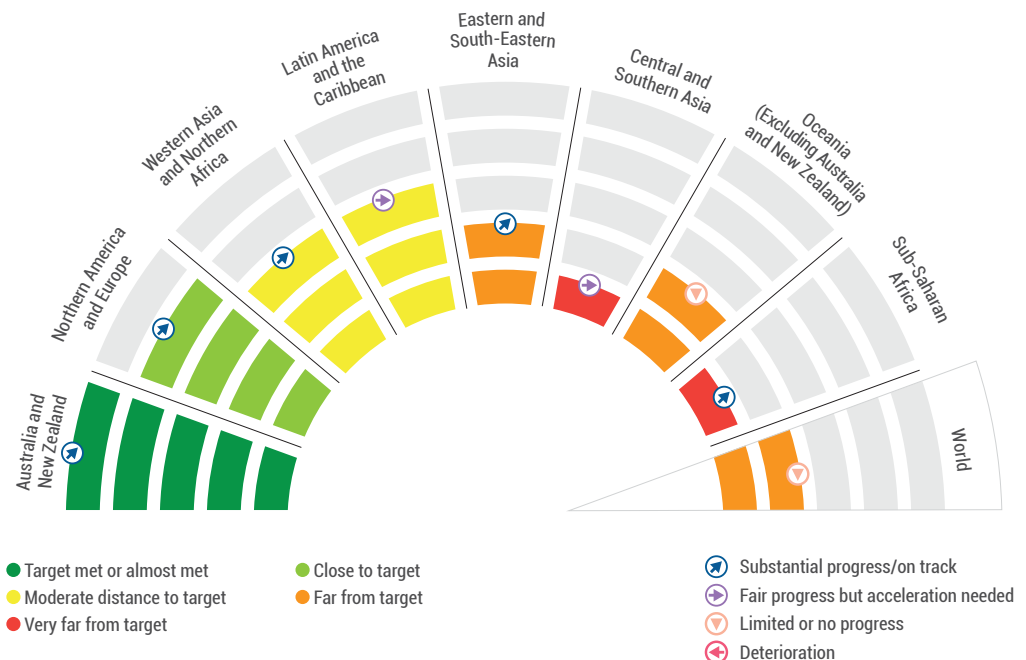
b. Current status and trends between 2014 – 2020 based on actual number of people living in slums and informal settlements
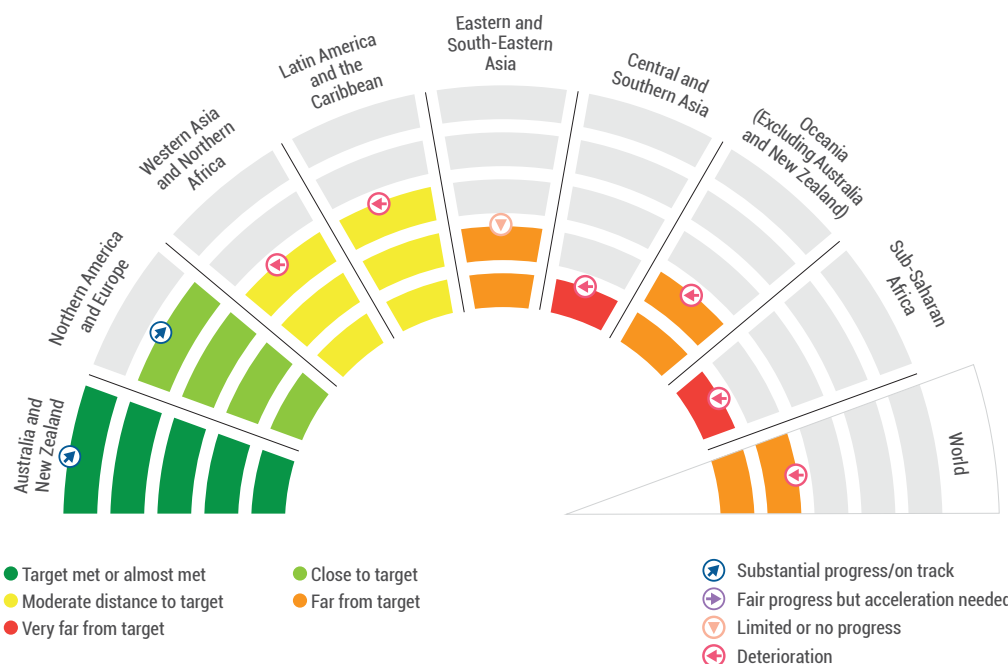
Global trends and conditions

165 million more slum dwellers have emerged over 20 years

While the share of urban population living in slums and informal settlements continued to decline, the absolute number of slum dwellers continues to grow. Globally, the number of people living in slums and informal settlements increased from 895 million in 2000 to over 1 billion 2020 (Figure 3.2). The average annual rate of change in the absolute number of people living in slums was about 0.4 per cent during the period 2008-2016 but this figure rose to about 1.5 per cent during the period 2016-2020.

Globally, 90 per cent of the world's slum dwellers were concentrated in Asia and Africa in 2020. Central and Southern Asia account for 34 per cent of all people living in slums, followed by East and South-Eastern Asia with 29 per cent of the total, and sub-Saharan Africa with 22 per cent. High urbanization rates in sub-Saharan Africa and Southern Asia mean that the absolute slum

population in these regions is likely to increase in the near future. Central and Southern Asia remains the region with highest number of people (359 million) living in slums. The regions that experienced the sharpest rise in the number of slum dwellers between 2000 and 2020 are Central and Southern Asia (44 per cent) and sub-Saharan Africa (77 per cent).

The reduction in global slum population is stagnating

The proportion of the global urban population living in slums and informal settlements decreased at an annual rate of 1.7 per cent during the period 2008–2016, which slowed down significantly to an average of 0.4 per cent during the 2016–2020 period (Figure 1). This deceleration points to an early sign of stagnation in the progress recorded towards target 11.1 since 2018. The 2020 update of the slum estimates indicates a general decline in the share of urban population living in slums, from 31 per cent in 2000 to 25 per cent in 2014 and further to 24 per cent in 2020.

With the exception of Central and Southern Asia, sub-Saharan Africa and Oceania, all regions are experiencing a slowdown in the decline in slum population. Western Asia and North Africa has, however, seen a stagnation in slum population going back longer. The decline in the rate of progress in the region was preceded by the start of the Arab Spring in 2011 and political unrest in this region remains an enduring challenge to economic recovery and housing reconstruction.[3] In the sub-Saharan Africa region, the rate of change for both the absolute increase in slum population and the relative decline in proportion of the urban population living in slums has remained relatively constant for the past two decades (Figure 3.2).

Figure 3.2: Trends in slum proportion and slum population by regions of the world*
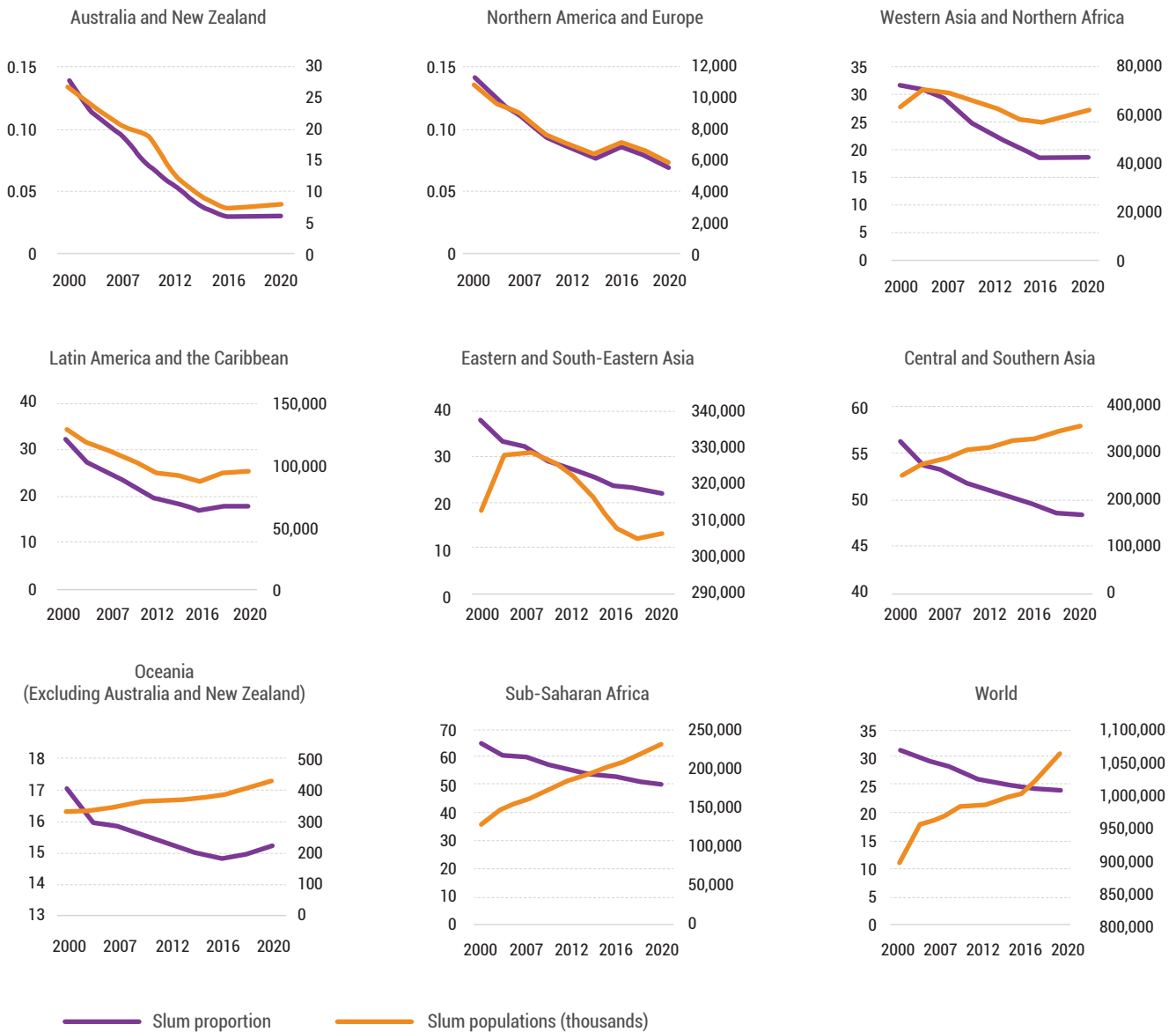
* Footnote: For Latin American and the Caribbean, latest projections have not taken into consideration the estimates that were expected from new 2020 rounds of census and survey data. Future projections will integrate those results and may affect the trends presented in this graph for that region and other regions.

Children in slums remain highly marginalized, significantly compromising the future of a large share of the urban population

New data produced through a joint initiative between UNICEF and UN-Habitat unravels trends in slums and informal settlements. Estimates made by UN-Habitat as part of the initiative indicate that, in 2020, 350 to 500 million children lived in slum households, most of which were in Asia and Africa. This represents between one-third to half of the total slum population. These children are exposed to poor living environments and face multiple deprivations, including limited access to health, sanitation, education, and other social services inherently lacking in the slums and informal settlements. This curtails children's equitable enjoyment of urban life and its associated benefits.

Modelled estimates from a range of geospatial datasets identify even more worrying phenomena regarding vaccination levels among children. There are more unvaccinated (zero-dose) children in urban and peri-urban areas (more than 28 per cent) than in remote-rural areas (over 11 per cent) according to estimates on the numbers of children un-or under-vaccinated for measles and diphtheria-tetanus-pertussis (DTP) from 99 lower- and middle-income countries. Given the existing inequalities between settlement types in cities, UNICEF projects the majority of these unvaccinated children to be in slums – with rough estimates that nearly half of the children in slum households are zero-dose children.

To ensure universal outcomes for children, we must have initiatives to tackle the inequalities in urban areas, particularly in children's access to essential services and decent quality of life. UNICEF's urban programming aims to support mechanisms that adopt a child-focused lens to urban development that address multiple deprivations, reduce multidimensional child poverty, and uphold fundamental child rights.

Slum growth may be twice as fast in secondary cities

Global and regional aggregates of population living in slums pose a risk of obscuring significant differences between cities within countries. Available evidence suggests that the urban population living in slums seems to be growing faster in secondary cities than in primary cities. Based on a limited sample of seven countries from sub-Saharan Africa for which data is available, the proportion of the urban population living in slums in intermediary cities was found to be 41.5 per cent higher than for primary cities. A similar trend is observed in Asia, where analyses of data from four countries for which data is available shows the proportion of the urban population living in slums in secondary cities is generally more than in primary cities – although huge variations are reported across cities, ranging from between 7 and 106 per cent higher. While the analysis was based on an initial set of few countries with higher share of slum populations, the evidence suggests there is a need to strengthen disaggregated assessment of slum trends across different city and settlement sizes.

Progress in cities slum reduction is observed in some countries

Some countries have reduced their slum populations over the last 10 years. A closer look at these cases suggests that the reasons for these reductions are due to housing policy changes, slum upgrading schemes, water and sanitation infrastructure investments, and improvements in the GDP per capita in these countries.

Further, when assessing the period 2000-2020, including only countries that have at least 10 out of 11 datapoints (biannual reporting) during this period (n=80), countries can be divided into five groups based on their change in percentage on the proportion of the urban population that lives in slums.

1. Extraordinary progress
   (>75% reduction)   n=7

2. Accelerated progress
   (50-75% reduction   n=25

3. Steady progress
   (25-50% reduction)   n=22

4. Very slow progress
   (0-25% reduction)   n=18

5. Decline
   (>0% increase)   n=10

Table 3.3 Countries recording 20% or more reduction in slum population for the period 2010-2022.

Regions	Countries
Central Asia and Southern Asia	Kazakhstan, Kyrgyzstan, Tajikistan
East and South-Eastern Asia	Mongolia, Thailand, Viet Nam
Europe and North America	Albania, Belarus, Hungary, Moldova, Montenegro, Ukraine
Sub Saharan Africa	Eswatini
Western Asia and North Africa	Algeria, Egypt, Georgia, Lebanon, Morocco
Latin America and the Caribbean	Costa Rica, Dominican Republic, El Salvador, Mexico, Panama, Paraguay, Uruguay

More than 1.6 billion people face housing inadequacy due to the global affordability crisis

Housing adequacy covers a broad range of conditions, including affordability, structural integrity, and well-located and well-serviced housing. As such, inadequate housing encompasses slum dwellers, people living in informal settlements that are not slums, people impacted by forced evictions, people experiencing homelessness, internally displaced persons (IDPs), those forced to live in institutions, and those facing unaffordable housing.[4] Depending on the degree of overlap that is assumed between the various indicators of housing inadequacy, between 1.6 billion and 3 billion people are estimated to be affected by different forms of housing inadequacy. These overlapping conditions reveal several gaps between the indicator and the target that are discussed below.

Affordability is one of the seven criteria set out by Office of the United Nations High Commissioner for Human Rights (OHCHR) and UN-Habitat for assessing whether housing is adequate.[5] The other criteria are tenure security, habitability, access to basic services, accessibility, location, and cultural adequacy. If the cost of housing threatens or compromises the occupants' enjoyment of other human rights and satisfaction of basic needs, then it is considered inadequate. A 2016 study estimated that 1.09 billion people are without access to affordable housing.[6] Furthermore, the population financially stretched due to housing costs is expected to grow to about 750 million by 2025.[7] A 2018 study reviewed a sample of 200 cities representing 70 per cent of the world's population and concluded that 90 per cent of the cities suffered from housing unaffordability, based on a measurement of average housing prices relative to median income.[8] However, these prospects, daunting as they were, are likely to have worsened since the COVID-19 pandemic -- which has also had different impacts on the different dimensions of housing adequacy. The Centre for Affordable Housing in Africa[9] reported in only 12 countries

on the entire continent could more than half of the urban population afford to buy the cheapest newly built house in 2021.[10] In Asia, a comparison between housing price data and average income for 211 cities found housing to be severely unaffordable.[11] In OECD countries, on the other hand, significant rates of housing vacancies reaching approximately 10 per cent of all dwellings suggest different challenges, like financial speculation in the housing market.[12] In the United Nations Economic Commission for Europe region, at least 100 million low and middle-income people are housing cost overburdened or spending greater than 40 per cent of their disposable income on housing. [13]

While many SDG 11 targets and indicators show a distinction between the developed and developing world, the housing cost overburden is a challenge in countries regardless of their income classification. Some countries with relatively high incomes still have relatively high housing cost overburden rates, while some countries with relatively lower incomes may have relatively low rates.

Homelessness is a global challenge affecting countries of all income levels and regions of the world. Yet, the lack of a globally agreed upon definition, consistent measurement standards and subsequent comprehensive monitoring has resulted in inconsistent reporting, which makes cross-country comparisons challenging. Most countries with available data have a homelessness rate of less than 1 per cent of the population however, these rates vary significantly across countries, with some countries having functionally zero rates.[14,15] The physical concentration of people living in homelessness in cities or certain parts of cities varies widely, which is important to consider for policy debates and enabling local and regional governments to address homelessness from a human rights-based approach.

When considering absolute homelessness, which excludes people living in temporary or crisis accommodation or those living in severely

The population financially stretched due to housing costs is expected to grow to about 750 million by 2025

Figure 3.3: Distribution of global homelessness population by regions: 2022

Region	Percentage
Australia and New Zealand	0.1%
Central and Southern Asia	27.5%
Eastern and South-Eastern Asia	7.9%
Northern America and Europe	2.6%
Latin America and the Caribbean	6.0%
Oceania (Excluding Australia and New Zealand)	
Sub-Saharan Africa	35.9%
Western Asia and Northern Africa	19.9%
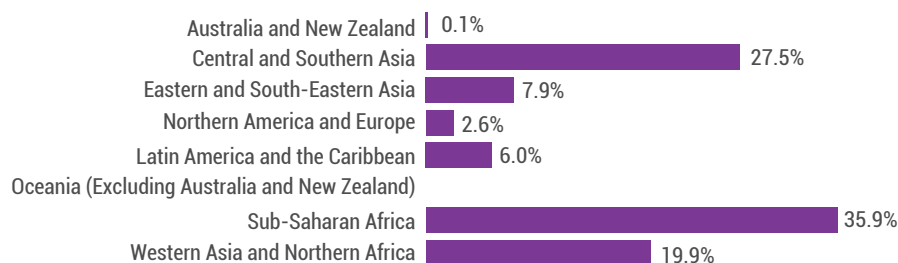
Source: UN-Habitat Global Urban Indicators database

inadequate and insecure accommodation, the aggregate numbers of those experiencing homelessness gets higher. The OECD estimates 6.4 million people to be in a state of absolute homelessness.

Lack of access to adequate housing intersects with other vulnerabilities

There are historically rooted and systemic inequalities in access to adequate housing on the basis of social characteristics like age, gender, ethnicity, sexual orientation, migration and disabilities. These factors particularly magnified during the COVID-19 health and socioeconomic crisis. Women and gender diverse persons have historically struggled with patriarchal property regimes that limit their access to land and housing. A World Bank assessment[16] in sub-Saharan Africa, for example, found that just 12 per cent of women reported owning land individually, compared to 31 per cent of men.[17]

Further, children in slums and informal settlements face multiple deprivations, including limited access to health, adequate sanitation, education and other social services. New 2020 data produced through a joint initiative between UNICEF and UN-Habitat show that 350 to 500 million children lived in slums or informal settlements households, most of which were in Asia and Africa. This figure is almost one-third to one half of the total global slum population. When considering their health deprivations, there are more unvaccinated (zero-dose) children in

urban and peri-urban areas (more than 28 per cent) than in remote or rural areas (over 11 per cent) according to estimates on the number of children unvaccinated or under-vaccinated for measles and diphtheria-tetanus-pertussis (DTP) from 99 lower- and middle-income countries.[18]

Others intersecting vulnerabilities relate to ethnicity, disability and migration status.[19] Five Latin American countries -account for 80 per cent of the region's indigenous population (Chile, Colombia, Guatemala, Mexico and Peru) and; more than 8 million indigenous persons have limited access to basic sanitation services in the home and experience higher level of overcrowding than non-indigenous populations.[20] The amount of accessible housing designed to accommodate the needs of persons with disabilities and older persons also does not match current projected needs and demand. Analysis carried out in the US, for example, shows that less than 4 per cent of homes offer no-step entry, single-floor living and wide enough doors and hallways to accommodate a wheelchair.[21] According to the European Union's migrant integration statistics, migrants face steeper challenges in affording housing. While only 9 per cent of EU nationals are overburdened by housing cost, 25 per cent of non-EU citizens are.

Countries affected by conflict face a rise in slum population

Out of the 10 countries that reported a rise in the proportion of the urban population that lives in slums in the period 2000−2020, more than

half are experiencing, or are transitioning out of, conflict. Many countries that experienced very slow progress in reducing the proportion of the urban population that lives in slums have likewise been impacted by conflict. During 2020 alone more than 82 million people were displaced due to persecution, armed conflict, violence and climate change.[22] Even more strikingly, at the end of 2021, of the 89.3 million forcibly displaced people, an estimated 36.5 million (41 per cent) are children.[23] The majority of refugees and IDPs move to cities seeking economic and social opportunities, yet they often live in overcrowded, marginalized areas exposed to hazards and without access to adequate housing, infrastructure, employment or basic services.[24]

The latest report by the Special Rapporteur on the right to adequate housing has shed light on the impact that conflict has had on housing destruction, as well as in displacement and loss of adequate housing. Without long-term peaceful conditions, effective slum upgrading is not likely to succeed. Progress on SDG 11.1 is thus linked to progress on SDG 16 (peacemaking).

Bottlenecks to progress

Numerous bottlenecks have so far limited progress in ensuring adequate, safe and affordable housing and basic services under Target 11.1. Listed below are brief summaries of five of the most significant bottlenecks to achieving progress on this target.

1. ***Insufficient Financing:*** Inadequate financing mechanisms have helped limit investments critical to developing affordable housing and improving basic infrastructure. This is particularly salient for rural communities where both the public and private sector may be unable or unwilling to develop new housing or service infrastructure due to prohibitively high costs. Similarly, without access to adequate credit, many low-income and rural householders furthermore lack the means and financial security to either access affordable housing or implement upgrades to the safety and adequacy of their current homes.

2. ***Inadequate Regulatory Frameworks:*** Inadequate planning and construction regulations have also helped reduce access to adequate housing and basic services. Restrictive zoning and land-use regulations contribute to excess housing demand and unaffordability, particularly in high-income countries such as the United States, where real housing prices have far exceeded construction costs in recent decades[25]. Inappropriate building regulations furthermore pose challenges for residents and private developers in both affordable-housing development and infrastructure upgrades, particularly in low-income and informal contexts.

3. ***Low Political Participation and Exclusion:*** Political engagement has been crucial to progress on affordable housing and slum upgrading in recent years. However, in many cities, low political participation still enables concentrated interests to have disproportionate influence on local development and planning processes. In many rich countries, for example, politically mobilized homeowners known as NIMBYs (Not in My Backyard) block new affordable housing developments to preserve the value of their existing housing assets. Low political participation and exclusion in informal settlements have furthermore resulted in both poor development-project outcomes and the perpetuation of inadequate and exorbitantly priced housing and basic utility services.

4. ***Limited Land, Global Shocks and Tenure Insecurity:*** Limited land supply and insecure land tenure can act as significant bottlenecks to both the development of affordable housing and property improvements, as developers and residents are unlikely to make big investments without the security of ownership. Poor legal protections and institutionalized systems of eviction and discrimination can furthermore

exacerbate tenure insecurity by preventing low-income and vulnerable populations (e.g., persons with disabilities; racial, ethnic or social minorities) from acquiring and maintaining access to adequate housing. Global shocks such as climate change and conflict further add to tenure insecurity and housing inaccessibility by contributing to mass displacement across the globe.

5. *Poor Policy Integration:* Poor integration of housing into broader development and anti-poverty policies can hamper progress on both access to affordable housing and other related development goals. Policies which specifically fail to treat housing as an integral development cornerstone and necessary pre-condition for broader well-being often help to perpetuate cycles of housing insecurity and poverty. These policy shortcomings can in turn help to exacerbate housing insecurity and homelessness, along with many of their associated challenges such as untreated mental illness and substance abuse.

An over view of informal settlement in Port-Au-Prince, Haiti © Julius Mwelu/UN-Habitat

Interventions highlights

Housing First: the Finnish strategy to end homelessness (national policy)

In the late 2000's, the Finnish government introduced an initiative aimed at reducing homelessness across the country. The initiative consisted of four national programmes centered on the principle of Housing First (HF) – an approach wherein people experiencing homelessness are provided with immediate and unconditional permanent housing. The first two of these programmes focused on moving people from temporary shelters to permanent housing; the third and fourth then supported these efforts by registering housing-insecure people into a benefits system and promoting more efficient intermunicipal cooperation, respectively.

The results of this initiative have been substantial. Homelessness in Finland decreased by more than 70 percent over the programme period: from 4,000 in 2008 to under 300 in 2022. These results demonstrate the potential of housing first policies in both reducing and preventing homelessness, and the viability of targeted and sustained policies over time. Developing and implementing strategies to tackle homelessness will be essential to meet Target 11.1.

Building social housing with future residents in Beijing (co-design with citizens)

In 2014, Beijing's state-owned housing enterprise commissioned global architecture firm MAD to design a new form of social housing in the city. The goal of the development was to pre-empt some of the historical challenges of social housing projects by involving future residents in the planning processes. The team thus began the project by conducting a survey through which future residents identified three primary needs for their housing: (i) close proximity to transport and services; (ii) integration with natural and outdoor space; and (iii) connection with other residents of the community.

In response to the community's input, the project's architects produced a design with three primary features: (i) a prime location in West Beijing, near public transportation and major roadways; (ii) Y-shaped buildings with south-facing windows to maximize natural light and outdoor exposure; and (iii) a multipurpose, outdoor amphitheater to help facilitate social interaction among the development's residents.

Reception to the Baiwan Jiayuan project has been overwhelmingly positive, with residents reporting high levels of satisfaction on numerous criteria. While by no means perfect, the development's positive reception thus exemplifies how participatory processes and consideration of community needs can play important roles in determining the success of a social-housing development.

A fresh start for Argentina's most famous informal settlement (participatory slum upgrading)

For decades, Buenos Aires' most famous informal settlement was almost entirely excluded from the city's urban core. The residents of Barrio Mugica, also known as Villa 31, received no waste management, electricity, or water services from the government and found few employment opportunities outside the neighborhood. The result was rampant poverty and unsafe living conditions, including high risks of disease, flooding, and injury from poor infrastructure (e.g., illegal electrical access).

After years of attempts to formalize the neighborhood, the city tried a new approach in 2015. It established the Participatory Management Council – a 25-member body aimed to encourage local participation in slum upgrading and ensure the project's compliance with municipal law. The creation of this new civic structure was followed by substantial attempts to educate and engage with the community on the workings of new systems and infrastructural elements (e.g., sustainable electricity use and, payment systems for utility bills).

After engaging in the necessary participatory processes, the city was able to achieve substantial improvements in services, infrastructure and quality of life in Barrio Mugica. The neighborhood now receives formal electric, water, and waste management services from the city; new roads connect it with adjacent neighborhoods; and over 2200 new jobs have been created in the neighbourhood, demonstrating the potential impact of participatory planning in transforming informal settlements.

How refugees have helped revitalize Cleveland's housing market (social integration)

In 2007-2008, the financial crisis severely impacted the city of Cleveland, Ohio (USA). More than 11 percent of housing stock was left vacant in the city, as three out of every four homes faced bank foreclosures.[27] The once-prosperous industrial hub soon became the seventh-most empty city in the entire country.

As part of the city's response to the crisis, it introduced the Dream Neighborhood initiative to help revitalize three of the city's most affected neighbourhoods. The project's central goal was to rehabilitate the neighborhoods by encouraging the rent and sale of renovated homes to refugees and immigrants resettling in the United States. To that end, the city allowed private developers to renovate homes with the condition that they lease or sell the homes exclusively to refugees or associated charitable organizations. The city further established a plan to ensure that adequate economic opportunities and services (e.g., schools, healthcare) would be available to refugees upon arrival.

The project has already achieved substantial success. Between 2013 and 2014, 673 refugees resettled in Cleveland with the city estimating even larger waves of housing demand in subsequent years[26] Refugee-owned businesses now contribute substantially to the local economy, spending more than $12 million and generating over 175 jobs in the Cleveland area,

in 2012 alone. The project thus provides a model for how well-coordinated and open-minded policies can result in the achievement of multiple objectives, in this case helping to improve the lives of both local residents and refugees from across the globe.

Seeing the bigger picture in Nairobi's Mukuru slums (integrated planning)

In 2017, Nairobi County (Kenya) implemented a new planning action to help improve housing and services in its informal settlements. It designated the Mukuru Special Planning Area, which encompasses three informal settlements *and enables the* government to overcome legal hurdles in order to establish a new integrated development plan for the settlement.

Developed by more than 40 civil society, academic and private organizations, the plan aims to improve the lives of Mukuru residents through three main pillars: (i) enhancing community participation and organization; (ii) improving urban basic services and infrastructure; and (iii) providing safe, adequate housing for all residents. Specific actions have included the development of standardized

physical addresses; the reconnection of homes with urban basic services (e.g., water, sanitation, and electricity); and the organization of households into larger political units (e.g., 10-household cells with two representatives; and 100-household forums) to promote greater participation in planning, community profiling, and development processes.

While implementation is still ongoing, the plan has already achieved some notable successes. More than 1,000 households now have access to running water and flushing toilets, helping to reduce the prevalence of water-borne illnesses like cholera. New connections to water and electricity have further helped reduce the exorbitant premiums that residents were paying before the intervention: an average of about two- to three-times *more* than residents living in the city's formal settlements. The government has also approved the construction of 13,000 new houses, built two new 24-hour hospitals, and completed more than 52 km of new paved roads. Overall, the project's successes demonstrate how a combination of private-public partnerships, multi-level government action and integrated planning can help to both initiate and achieve comprehensive change in a community.

Target 11.2
By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

Indicator 11.2.1: Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities.

Quick facts

- Overall global progress is at a moderate distance from target of 11.2.

  - There is a pronounced Global North-South split with progress toward indicator 11.2.1 on track for two regions (Australia and New Zealand, North America and Europe) but largely off track for all other remaining regions (Western Asia and North Africa, Latin America and the Caribbean, East and South-Eastern Asia, Central and Southern Asia, Oceania and sub-Saharan Africa).

- Only half of the global urban population has convenient access to public transport (51.6 per cent).

- Proximity to public transport does not imply higher usage, which suggests that governments must do more than just site public transport but also create conditions conducive for users such as safe routes and affordable cost.

- In all regions, low-capacity systems like buses account for the majority of global public transport modes.

- About 1.3 million people die each year as a result of road traffic crashes.

Only half of the global urban population has convenient access to public transport (51.6 per cent)

Figure 3.4: Progress in indicator 11.2.1

● Target met or almost met   ● Close to target   ● Moderate distance to target   ● Far from target   ● Very far from target
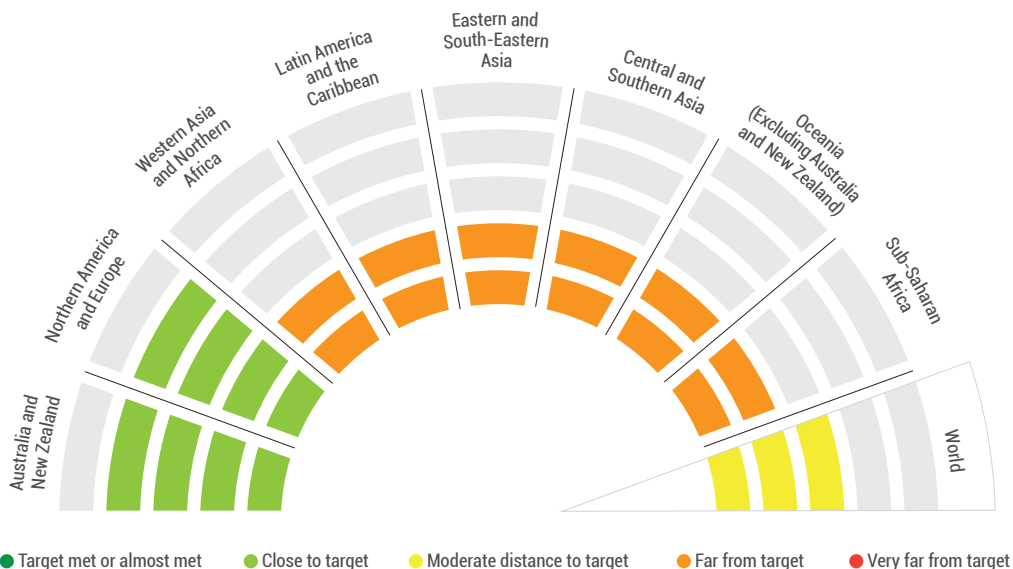
Progress Synopsis

As the global urban population continues to grow, the need for sustainable transport in cities and human settlements is urgent and expected to grow exponentially. Capital cities as well as small- to medium-sized urban areas continue to grow rapidly, which increases demand for public transport services.[1] The provision of access to safe, affordable, accessible and sustainable transport systems for all is urgent. The United Nations Secretary-General's High-Level Advisory Group on Sustainable Transport (HLAG-ST) defines sustainable transport as *"the provision of services and infrastructure for the mobility of people and goods advancing economic and social development to benefit todays and future generations—in a manner that is safe, affordable, accessible, efficient, and resilient, while minimizing carbon and other emissions and environmental impacts"*.[29]

Sustainable mobility in cities is essential to urban quality of life and a key factor directly shaping people's ability to access services, infrastructure and economic opportunities. How people move around cities has economic, health and social impacts. Critically, transportation also produces emissions that contribute to air pollution and climate change and accounts for about 64 per cent of global fossil fuel consumption, 27 per cent of all energy usage; and 23 per cent of the world's energy-related carbon dioxide emissions.[30] For this reason, there has been a distinct focus on accelerating a transition to zero-emission vehicles and prioritizing low-emission strategies for sustainable transport.[31] Public transport tackles these challenges as it is often more affordable, accessible and energy-efficient than other forms of transport.

However, achieving sustainable transportation systems for all in urban settings encompasses not only the mitigation, pollution and energy components, but also the far-reaching socio–economic impacts related to universal access and equity, particularly for those in vulnerable situations. Expanding public transport while paying, special attention to the needs and requirements of marginalized groups, such as older persons and persons with disabilities ensures that accessibility is at the heart of sustainable transport for all. Promoting sustainable urban transport is thus central to the attainment of the shared global goal

Tram in city center, Melbourne, Australia © Shutterstock

of sustainability by 2030 for both people and planet. Target 11.2 and indicator 11.2.1 provide a framework through which we can assess progress, identify gaps and formulate actions to advance towards this vision.

Overall progress with Target 11.2 is on track for few regions (Australia and New Zealand, North America and Europe) but largely off track for all other remaining regions (figure 11.2.1)

Global trends and conditions

Public transport is defined as a shared passenger transport service that is available to the general public and is provided for the public good, and includes services such as buses, trolleys, trams, trains, subways, cars and ferries that are shared by strangers without prior arrangement. Public transport also includes informal modes of transport (often referred to as paratransit) -, but unlike formal transit these modes often lack designated routes or stops.[32]

Indicator 11.2.1 assesses the provision and access to public transport based on the availability of public transport stops and population distribution. According to the 11.2.1 indicator methodology, public transport is considered convenient when a stop is reachable within a walking distance along the street network of 500 metres from a reference point to a low-capacity public transport system (e.g. bus) and/or 1 km to a high-capacity system (e.g. rail, metro, ferry). Indicator 11.2.1 methodology also provides for additional measurements of public transport, including frequency, efficiency, reliability, comfort, safety, convenience and delivery in a way that is cognizant of needs of different groups, including those 'who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others', as well as those with temporary disabilities, older persons, children and people in vulnerable situations.

Only half of the global urban population has convenient access to public transport

According to data compiled by UN-Habitat for 1,507 cities from 126 countries, only 51.6% of the world's urban population has convenient access to public transport, although this figure varies considerably across regions. North America and Europe currently have the highest levels of access to public transport (analysis based on 767 cities averaging at 90.6%).

Figure 3.5: Share of the population with convenient access to public transport by region

Region	%
Global average	51.6
Sub-Saharan Africa	30.7
Central and Southern Asia	33.7
Western Asia and Northern Africa	36.1
Eastern and South-Eastern Asia	40.9
Latin America and the Caribbean	43.3
Australia and New Zealand	85.7
Northern America and Europe	90.6

● % of population with convenient access
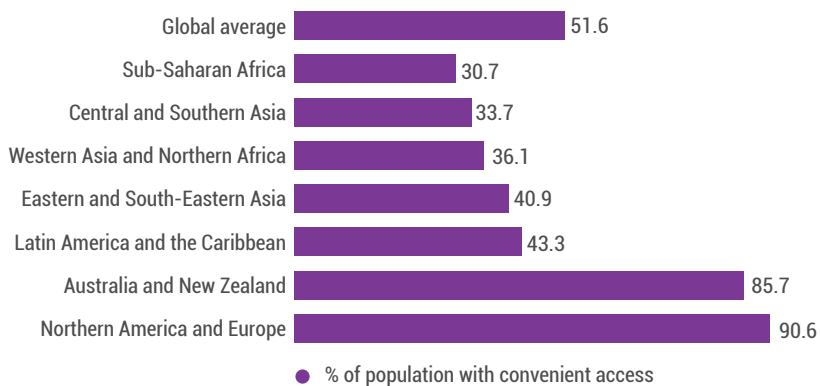
*Based on data from 1507 cities constituting 27 in Australia and New Zealand, 191 in Central Asia and Southern Asia, 94 in Eastern Asia and South-Eastern Asia, 217 in Latin America and the Caribbean, 767 in Northern America and Europe, 83 in Sub-Saharan Africa, and 128 in Western Asia and Northern Africa. Changes in values by region from previous reports are more as a result of change in number of cities with data as opposed to new investments in public transport.

The 128 cities in Western Asia and Northern Africa score 36.1 per cent on average when measured against indicator 11.2.1, but Israeli cities like Tel Aviv and Haifa stand out in this region with scores of 100 per cent accessibility (figure 11.2.1a). Cities in Sub-Saharan Africa record a lower level of access (analysis based on a sample of 83 cities average out at 30.7 per cent). However, in the Africa region, transport systems include a high level of paratransit systems, which are not fully mapped – implying that the actual levels of access are higher than the current data demonstrates. Key to note however is that these shares of access to public transport are based on an assessment of proximity to a stop and does not consider the presence or lack of infrastructure that enhance access or use of public transport by special groups such as persons with disabilities, older persons and other groups.

In all regions, low-capacity systems account for the majority of the global public transport modes (averaging 60 per cent in all regions). The highest contributions of high-capacity systems to public transport access are reported in North America and Europe.

Usage of public and active transport hold a slim majority over private motorized transport

The data on the coverage of public transport systems highlighted above is at best only a proxy of actual ridership. Studies over the past two decades by UN-Habitat and elsewhere have shown the preponderance of private motorized transport. The global modal split in cities indicates that 47 per cent of all trips are by private motorized transport; 37 per cent by non-motorized transport, including walking and cycling; and only 16 per cent by public transport.[33,34] The available data on modal split, which indirectly captures all the other aspects of convenient access beyond proximity, shows different results when compared to the share of population with convenient access. Public transport usage in Europe and Central Asia, Latin America and Asia-Pacific is much higher than

other regions when considering modal split. For instance, Europe's modal split of non-motorized transport and public transport is 19 percent points higher than North America.[35]

Road fatalities and injuries continue to derail progress

It is estimated that 1.3 million people die each year as a result of road traffic crashes, most of which are pedestrians, cyclists and motorcycle users.[36] Universal access, walking and cycling infrastructure and connected, integrated public transport systems are fundamental elements of creating safer and more equitable mobility systems.[37] There have been multiple global campaigns geared towards improving road safety including Vision Zero which aims to have zero road related fatalities and injuries.[38] A new road safety indicator developed by the International Transport Forum (ITF), suggests that decarbonization efforts also have benefits for road safety; however, the risk of collisions will still rise due to increasing competition for road space.[39] Therefore, investments in public transport and walking and cycling infrastructure is likely to increase in relevance and necessity.

The mobility needs of women and girls are still largely unknown and unmet

Transport systems and investments that are designed with inclusive gender dimensions at all stages can bring significant benefits to riders. However, too often, the design of transport projects and services do not sufficiently consider women's and gender diverse persons' travel needs, concerns, priorities, and preferences.[40] There are various reasons for this discrepancy, one of which is that women are still largely underrepresented in transport sector agencies. A very serious and urgent issue is violence against women and girls while walking or while on public transport, particularly in developing regions.[41] As identified in SDG indicator 16.1.4 - women feel significantly less safe compared to men when walking alone around the area they live.[42] For

instance, UN Women found that 83 per cent of the total female respondents in a Cairo commuter survey felt neither safe nor secure on the city streets. When making decisions, women tend to consider the level of safety and personal security, foregoing certain trips and seeking less efficient or more costly alternatives.[43] But the full extent of this issue is unclear because existing transport data contains a gender bias. [44,45]

COVID-19 created a global urban mobility shift

During the COVID-19 pandemic, cities rapidly shifted their mobility priorities to enhance non-motorized transport options in part to ensure only essential workers utilized collective transport. In many cities, walking and cycling increased significantly.[46] In response to pandemic-related urban mobility restrictions, the concept of the "15-minute city" also gained prominence as an urban design and land-use policy approach to locate daily needs closer to where people live. Furthermore, cities introduced measures to enhance non-motorized mobility in response to the crisis. Cities like Barcelona, Paris, London, Seoul, Kuala Lumpur, and Bogotá have successfully reclaimed some of their streets from cars and converted them into spaces that place the movement of people above the movement of personal vehicles.[47] Despite these gains for public space, the most visible impact in the early stages of the pandemic was the very strong decline in the use of public transport.[48] Ridership has not bounced back universally even after the lifting of public health restrictions. Restoring trust in public transport and building back better has become a core priority in some regions.[49]

Public transport expansion is on the rise in Asia-Pacific

The greatest advances worldwide in expanding public transport have been made in the Asia Pacific region, with a 57 percent increase in public transport ridership in the period 2012 to 2019 (last available year prior to COVID-19) (UITP, 2021).[50] China stands out in particular, which has rapidly added new high-capacity public transport, progressing from 4 to 23 percent of the world's metro by length in the last two decades (Ovenden, 2003[51]; UITP, 2021). In 2018, China had 214 metro lines operating in 41 cities, with many more at various stages of planning (Peng, et al. 2022)[52]. This growth has been enabled by a planning apparatus in which municipalities take initiative, but rely strongly on national standards, national means of financing and national approval (Peng, et al. 2022). The extension of metro system has developed in parallel with extension of China's high-speed intercity rail connectivity. The rapid extension of public transport in the Asia Pacific region, which is the larger exporter of metro systems globally (Volza, 2023)[53], has also fostered a growing industry of rail -related manufactory that has contributed to rising local urban prosperity that accelerates the achievement of other SDGs.

Digitalization and innovation in transport is on the rise

Cashless payments, data collection and comprehensive analytics as well as mobile communications and machine learning have led to an increase in new mobility services.[54] The European Commission, for example has been supporting the development, testing and deployment of smart technologies and new transport solutions to boost the digitalization and sustainability of mobility.[55] While many activities have focused on autonomous vehicles and self-driving cars, smart city programmes and sustainable urban mobility plans (SUMPs) are also focusing on digital services that enhance the user experience through tools like micro-mobility and demand-responsive transport. The latter is a flexible mode of transportation that adapts to the demands of its user groups and is increasingly being recognized as both a social and environmental benefit due to its impact on multimodal transport and first/last mile connectivity.[56]

In the same vein, unmanned transport systems are rapidly evolving with flying machines and various

unmanned aerial systems (UAS), and the complexity of operation of these needs are adapting to the traditional regulatory system. UAS hold the potential to offer solutions to some of today's sustainable mobility issues. For example, humanitarian aid and emergency response operations including scheduled and unscheduled medical deliveries or provision of emergency response to victims of natural or human-caused disasters are some of the uses of UAS.[57] The efficiency of the global supply chain, including first and last mile deliveries at the local level, could benefit from more sustainable options such as the growing use of new technologies and drone deliveries.

Bottlenecks to progress

Target 11.2 aims to provide safe, affordable, accessible and sustainable transport systems for all. Outlined below are five of the biggest bottlenecks to achieving progress on this target.

1. *Inadequate Infrastructure and Connectivity:* Insufficient infrastructure and connectivity pose significant bottlenecks in achieving Target 11.2. Inadequate road networks, public transportation systems, and non-motorized transport infrastructure limit access to safe and reliable transportation options. Lack of connectivity between urban and rural areas and poor intermodal integration hinder seamless mobility and accessibility.

2. *Financial Constraints:* Limited funding and financial resources also pose a significant barrier to developing and maintaining sustainable transport systems. Insufficient investment in transportation infrastructure and services prevents the implementation of affordable and accessible modes of transport, especially in low-income communities.

3. *Lack of Integration and Coordination:* Fragmented planning and coordination among different modes of transport and stakeholders, such as government agencies, transportation authorities, and urban planners, create challenges in achieving a seamless and integrated transport system. Lack of coordination results in disjointed networks, inefficient transfers, and suboptimal transportation options.

4. *Inequality in Access:* Socioeconomic disparities and unequal distribution of transportation services and infrastructure hinder universal access to safe and affordable transport. Marginalized communities, including low-income neighborhoods and rural areas, often face limited access to public transit, cycling facilities, and pedestrian-friendly and accessible infrastructure, perpetuating social inequalities.

5. *Unsustainable Transport Patterns:* Unsustainable transportation systems contribute to environmental degradation, including air pollution, greenhouse gas emissions, and congestion. Inadequate emphasis on sustainable transport alternatives, such as electric vehicles, cycling, and walking, hampers progress in achieving environmentally friendly and low-carbon transport systems.

Intervention highlights

Promoting safety, efficiency and inclusivity in Dar es Salaam's public transport

In 2016, the Government of Tanzania launched its new Bus Rapid Transit (BRT) system to help alleviate traffic congestion in Dar es Salaam, the country's capital. Like many East African cities, transport in Dar es Salaam has long been dominated by informal minibuses (called *daladala* in Tanzania; *matatu* in Kenya)[58]. However, with the *daladala* unable to meet the city's increased demand for transportation, the BRT has helped provide the city with a much-needed increase in transportation supply and infrastructure.

At the core of the BRT plan has been 21 kilometres of *designated bus lanes*, which have helped ensure that the system's 140 buses have not simply added to the congestion on existing

roads. The government has since added more than 70 buses during the project's second phase (2022) and hopes to add another 95 before the end of the phase, with the goal of having 3,290 buses operating over a 155 kilometre road network at the end of the project's six phases in 2030. To complement this network, the government has also implemented measures to promote safe walking and cycling along the bus corridors (e.g., paths, street signs) and is currently working with the Dar Rapid Transit Agency, local entrepreneurs and UN-Habitat (through European Union funding) to improve the first- and last-mile connectivity through the deployment of electric 3-wheelers.

The BRT's impact has already been immense. Travel times have been reduced by more than 50 percent for approximately 200,000 people each day (a number which is expected to increase to 635,000 in the coming years). Accidents have fallen from 413 in 2016-17 to 169 in 2018-19. And the system has made significant strides towards meeting the diverse needs of riders with disabilities.

Dancing zebras in La Paz: improving road safety and public spaces (youth focus)

In 2001, the city of La Paz, Bolivia, launched the Zebra Urban Educatoss initiative as a way to engage at-risk youth in community improvement. Participants in the programme dress in zebra costumes and use a combination of singing, dancing and calisthenics to help both drivers and pedestrians safely navigate the roads and obey traffic regulations, especially at pedestrian crossings.[59] In exchange, participants are paid minimum wage and provided with health care and educational opportunities. The progamme utilizes zebra costumes based on a theory that whimsical and humorous encounters like a costumed zebra can defuse tension in traffic encounters better than traffic lights.

After more than 20 years, the zebras of La Paz continue to have a substantial impact on the community. Roads have become safer and

less congested. Crime and substance use has declined, as youth participants report higher satisfaction with their work and have greater means to pursue educational opportunities.[60] And the zebras have become a beloved civic icon recognized by UNESCO as a valuable "cultural asset." The ongoing success of the road programme has even allowed the zebras to expand into new areas such as public spaces, wherein participants have painted street murals, revitalized green spaces and engaged in other "urban acupuncture" projects for the benefit of the community.

The success of the Zebra programme demonstrates how simple, yet highly imaginative ideas can ultimately have large and multifaceted impacts on our communities. The programme exemplifies how inclusivity can serve as not only an end, but also a means for achieving safer road systems.

Cycling in Santa Ana: empowering women through active mobility (gender focus)

In 2016, the Women's Commission of Santa Ana in Costa Rica launched an initiative to promote women's cycling across the city. The programme, Santa Ana en Cleta ("*cleta*" is a Spanish slang word for bicycle), aims to empower women and encourage sustainable mobility by teaching women from vulnerable communities about cycling and the rules of the road. It also seeks to strengthen the community by organizing group rides and empowering women, who comprise about 80 per cent of the community's primary family caretakers.

The impacts of the programme have already been felt across the community. 2,500 women have participated in the programme as of 2019 and more are expected to participate as UNDP provides additional support for the programme. In response to a community survey, the city is working with the private sector to develop a public bike-sharing system, which would further promote sustainable, accessible and affordable transportation for women and other members of the community.

Denmark's cycling superhighways: moving beyond the urban core (metropolitan governance)

The city of Copenhagen, Denmark's capital, has long worked to make cycling a viable mobility option for its residents and has received global recognition as a paragon of urban cycling infrastructure. To this end, the city government set a goal in the late 2000s for more than half of all residents to commute to work via bicycle. However, with many of Copenhagen's workers now commuting from neighbouring suburbs, the city soon realized that cycling infrastructure would also be needed outside the city limits in order to achieve this goal.

In 2009, the municipal government established the Office of Cycle Superhighways to oversee the construction of an 850-km network of high-quality paved and traffic-separated cycling routes.[61] Soon after establishing this office, more than 30 of the surrounding municipalities joined Copenhagen in the initiative, developing nine cycling routes covering a combined distance of 175 km in just over ten years.[62]

The superhighway's impacts are significant for numerous reasons. First, the viability of cycling commutes has increased immensely. In a decade the number of cycling commuters has increased by more than 23 per cent across the capital region. Second, the superhighways have resulted in numerous environmental, health and efficiency benefits. These include reducing air pollution, greenhouse-gas emissions and traffic congestion across the region. Finally, the project provides a good model for how other cities and regions can successfully coordinate across municipalities in recognition that urban challenges do not stop at the city limits but rather cross boundaries and require effective metropolitan governance.

Strategies to improve road safety in Ethiopia (active transport)

Like many low- and middle-income countries, Ethiopia has a very high road fatality rate, with 26.7 deaths per 100,000 inhabitants recorded each year, according to WHO data. Cyclists and pedestrians are particularly vulnerable to road-related fatalities, representing about half of all road users but more than 80 per cent of all road victims. [63]

To address these unsafe conditions, in 2019 the city of Addis Ababa, Ethiopia, with support from UN-Habitat and funding from the UN Road Safety Fund, introduced a non-motorized transport (NMT) strategy. The strategy provides a 10-year roadmap for the development of high-quality walking and cycling infrastructure across the city. It has since inspired a similar strategy at the national level, which will be implemented in 69 other cities across the country.

While implementation of these NMT strategies are still ongoing, significant milestones have already been reached. These include concrete plans and budget allocations for more than 3,000 km of walking and cycling infrastructure across the country, as well as more regular "open street" and "car-free" days that provide residents with opportunities to explore active transportation without the risk of road accidents. While much remains to be accomplished, Ethiopia's NMT strategies provide encouragement that regional and global mobility policy are trending in the right direction.

Target 11.3

By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries

Indicator 11.3.1: Ratio of land consumption rate to population growth rate

Global Status: Inadequate data to determine

Quick facts

- During the period 1990 - 2020, the physical expansion of cities was faster than the rates of population growth.

- The urban built-up area per capita is increasing

- Cities are still growing in an urban sprawl pattern, but less quickly than they used to

- Australia and New Zealand and Northern America and Europe record the highest built up area per capita values, while Western Asia and Northern Africa and Eastern and South-Eastern Asia record the lowest values.

Progress synopsis

Sustainable cities develop through effective planning, formulation and implementation of urban policies, environmental protection measures and strategic investment actions targeted at meeting the needs of both current and future generations. A major priority for city leaders and policymakers should be how to ensure that urban areas are designed and configured in a manner that provides their residents with opportunities to prosper, and enhances coexistence with local, regional and global ecosystems.

Target 11.3 aims to promote inclusive and sustainable urbanization while advancing capacities for participatory, integrated and sustainable settlement planning and management. Indicator 11.3.1 challenges city leaders to anticipate and plan for sustainable settlement growth patterns in line with population growth. Indeed, land consumption is a critical determinant of inclusive and sustainable urbanization. Cities offer different benefits for their citizens depending on their patterns of land consumption. In general, compact urban development patterns create agglomeration economies thereby creating more economic opportunities than in less compact cities. This built form is also more efficient and lower the cost of provision of basic services and infrastructure and reduces energy consumption.

Cities are still growing in an urban sprawl pattern, but less quickly than they used to
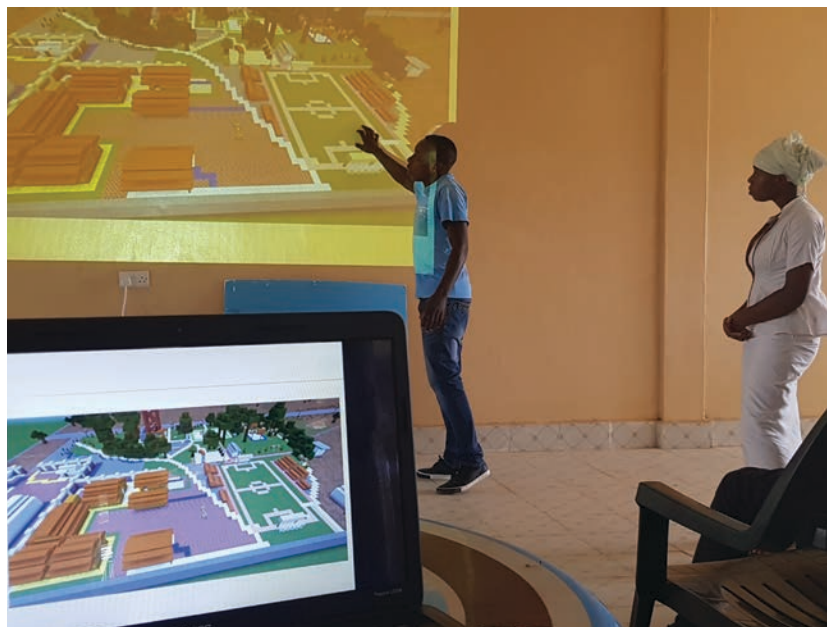
Use of Minecraft for participatory planning of neighbourhood public spaces © UN-Habitat

In turn, cities that sprawl rapidly tend to generate more costly mobility needs, higher energy consumption and higher per capita costs for service delivery and provision.

Settlement patterns impact many other SDG targets and indicators such as access to transport, housing, public spaces, energy, national urban policies, urban resilience, safety, culture and climate change. Therefore, indicator 11.3.1 must be considered as a determinant of SDG progress, particularly those goals, targets and indicators addressing issues such as poverty, health, education, food security, nutrition, energy, inequality, climate change, transport, open spaces and natural environments. Through these connections, this indicator provides unique opportunities for cities and countries to understand and measure all the components of sustainability more holistically including placing accessibility for all at the core of urban designs.

Global trends and conditions

Urban areas are expanding at faster rates than their population growth, but on a steadily declining rate

According to data compiled by UN-Habitat for 681 cities, during the period 1990–2020, the physical expansion of cities occurred faster than the rates of population growth (Figure 3.6). This trend has significant implications on planning processes and service delivery. The global land consumption rate during the period 1990–2000 averaged 2.9 per cent while the population growth rate averaged 2.3 per cent. The land consumption rate declined to an average of 2 per cent during the 2000–2010 period, while the population growth rate also declined to an average of 1.6 per cent over the same period. These rates further declined to 1.5 per cent and 1.2 per cent respectively during the period

Figure 3.6: Land consumption rate and population growth rate by region
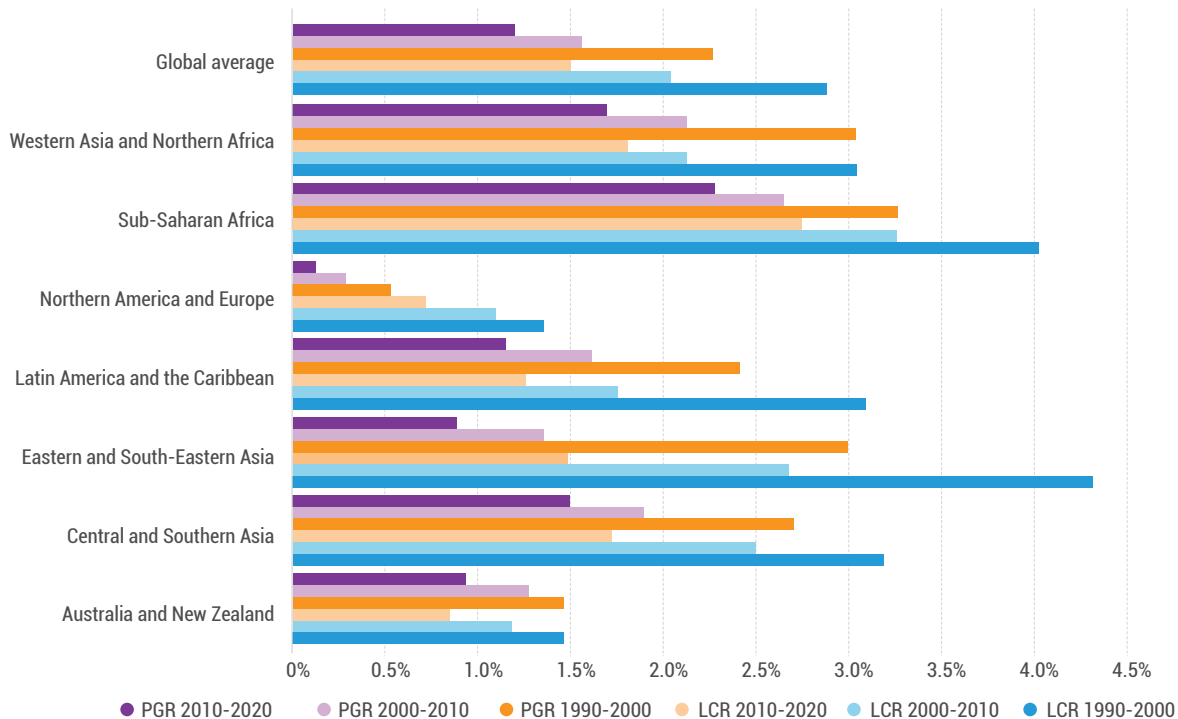
*Based on data from 681 cities drawn from 124 countries constituting 24 in Australia and New Zealand, 117 in Central Asia and Southern Asia, 43 in Eastern Asia and South-Eastern Asia, 156 in Latin America and the Caribbean, 149 in Northern America and Europe, 97 in Sub-Saharan Africa, and 95 in Western Asia and Northern Africa.

2010–2020. The overall steady decline in both the population growth rate and land consumption rate were observed in all regions.

Cities in East and South-Eastern Asia and Sub-Saharan Africa recorded the highest levels of land consumption rates, while those in Northern America and Europe and Australia and New Zealand regions recorded the lowest levels of land consumption rates. On the other hand, cities in Sub-Saharan Africa recorded the highest levels of population growth rates, while those in the Northern America and Europe region recorded the lowest population growth rate. While these trends are measured based on urban boundaries based on the degree or urbanization harmonized methodology (DEGURBA), the trends in the population growth rate are consistent with those from *World Urbanization Prospects 2018*, which shows a steady decline in the urban population growth rates in most regions during the reference periods.

The urban built-up area per capita is increasing

In addition to measuring the rates of land consumption and population growth, SDG 11.3.1 also recommends the computation of a secondary indicator on the built-up area per capita, which measures the amount of built-up area per person during a given time period. This secondary indicator has been shown by previous studies as providing useful information to understand urban growth trends.[64] According to data from the 681 cities across 124 countries, the built-up area per capita marginally increased from an average of 161 m^2 per person in 1990 to 169 m^2 per person in 2020, with a slight drop recorded in 2000 (Figure 3.7). All regions experienced an overall net per capita increase in built-up area from 1990 to 2020, despite slight declines observed in Central and Southern Asia and Western Asia and North Africa (between

Figure 3.7: Built-up area per capita by region

- Built-up area per capita 2020
- Built-up area per capita 2010
- Built-up area per capita 2000
- Built-up area per capita 1990
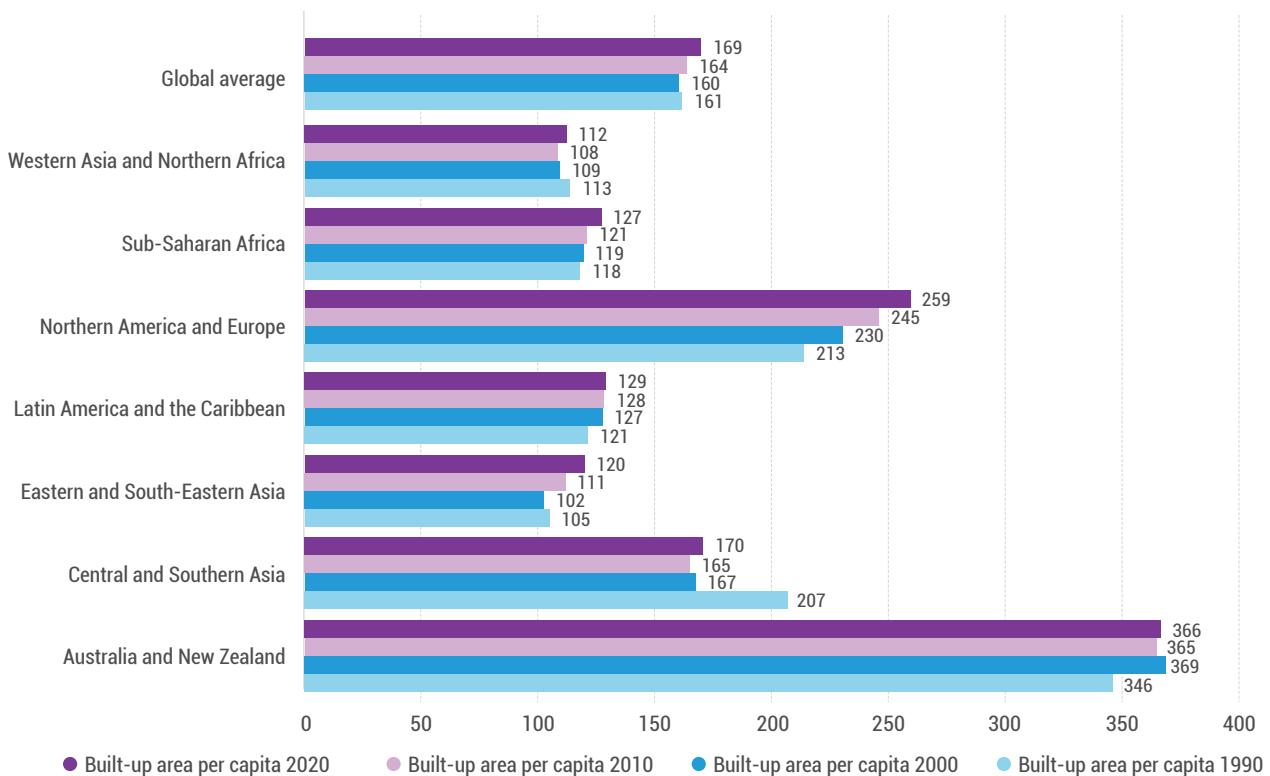
1990 and 2010) as well as in East and South-Eastern Asia regions (between 1990–2000). Australia and New Zealand and North America and Europe recorded the highest built-up area per capita values, while Western Asia and North Africa and East and South-Eastern Asia recorded the lowest values.

Ideal ratio of land consumption rate to population growth rate is context specific

A major challenge for SDG 11.3.1 is defining a desired model of settlement pattern that would guarantee the most balanced urban development amidst population growth, particularly given the diversity of settlement typologies and their efficiencies. Countries and cities often grapple with defining the ideal "ratio of land consumption rate to population growth rate." There is no single recommended value for SDG 11.3.1, since progress for each city should be based on its baseline values as well as its observed growth

trajectory and larger ecosystem. However, based on trends observed from the 638 cities where data is available, three broad clusters of performance can be derived for indicator 11.3.1 as follows:

- A value below 1 would imply that the population growth rate (PGR) is faster than the land consumption rate (LCR), often indicating a faster increase in urban densities over the reporting period;

- A value of 1 would indicate an equal rate of LCR to PGR, and a city that expands at a more-or-less same rate at which its population changes (thus maintaining its densities);

- A value above 1 would indicate a city where the urban expansion is faster than the population growth rate, effectively implying a rapidly sprawling city; and

- A negative value is mostly achieved when a decline in population growth rate is recorded but can also happen in rare situations when a city loses its built-up areas, such as when disasters strike. The negative growth rate is more difficult to interpret in a simplistic way without looking at which of the two elements experienced a decline.

Regardless of which value is achieved for a city, no one value is perfect. For example, while a value less than 1 would indicate a densifying city, which would be good for service delivery, a city that densifies without adequate expansion of services risks growing its informal sector and exposing its citizens to poorer living standards. A city that reports a value greater than 1 on the other hand is rapidly sprawling and is expensive to service, while a city that records a value of 1 might not fully benefit from the value associated with densification. In all categories, how well the city is planned and managed, its level of connectivity between components, and the quality of life of its citizens determine whether its land and population growth rates are sustainable or not.

Aerial view of the sprawling city of Los Angeles © Shutterstock

Indicator 11.3.2: Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically

Global Status: Inadequate data to determine

Quick facts

- Civil society engagement in decision-making and development processes is under threat in several parts of the globe.

- Only half of cities in a key UN-Habitat study have structures in place for civil society participation in urban planning and management processes.

- There are even fewer opportunities for citizens to participate in budget decision-making processes, with only 40 per cent or less of experts agreeing their cities have structures for civil society participation on fiscal expenditures.

- Civil society participation in the evaluation of urban management performance is also constrained, with only 40 per cent of experts indicating that cities offer opportunities to do so.

Progress synopsis

SDG target 11.3.2 champions the participation of citizens and civil society in urban planning and management. It recognizes them as essential actors whose involvement is necessary for the co-creation and development of urban models that yield better results for all city dwellers. Cities that holistically engage all their population groups and consider their priorities are more livable and present better opportunities for sustainability. Continuous engagement with various urban stakeholders fosters trust, ensures responsiveness to the needs of all urban residents and consolidate shared ownership of a city's future.[65]

Citizens, residents and civil society in general play a key role in localizing the SDGs and ensuring that city managers are accountable to their commitments to articulate and implement strategies, visions and plans. In this regard, recognition of the diversity of citizens and civil society that need active engagements with the urban authorities is key since these also tend to represent a wide array of interests, values and behaviours. Consultation at all levels of decision-making processes should aim to include all persons, including vulnerable and marginalized groups. Indicator 11.3.2 tracks progress towards achievement of target 11.3's components on enhanced inclusivity and capacity for participatory, integrated and sustainable human settlement planning and management at the city level.

Global trends and conditions

Participation in planning and decision-making processes in cities remains marginal. Data collected by UN-Habitat from 272 cities in 96 countries using the questionnaire on SDG 11.3.2 provides a nuanced understanding of the extent to which cities engage civil society partners in urban planning, urban decision-making and evaluation of urban management performance through formal participatory processes.

While the data on the 272 cities is not sufficiently regionally representative to make interregional and intra-regional trends and comparisons, the results generally indicate a worrying trend in participation in the planning and decision-making processes. Like many other indicators, some variations are evident in the levels of civil society engagement between and within countries, as well as across the tracked elements of participation. In the last 4 years, and in direct response to the aspirations of SDG indicator 11.3.2, we also witnessed various initiatives that some cities have adopted to ensure inclusive participation in urban governance. The International Observatory on Participatory Democracy has documented *(https://oidp.net/es/ practices.php)* such locally led initiatives including summaries of their immediate impacts in providing the participatory spaces to engage citizens to promote better cities and territories for all.

Box 11. Political and civil liberties are under threat

The 2021 annual assessment by Freedom House of political rights and civil liberties documented the biggest democratic deterioration since 2006, with political rights and civil liberties declining in 73 countries, representing 75 per cent of the global population. According to the Varieties of Democracy research group, civil society across the G20 countries has deteriorated. The Mo Ibrahim Report states that the African continent has been going through an erosion of civil society and the COVID-19 pandemic has worsened the situation further. Indeed, 38 countries in Africa have seen their civic space deteriorate and only 15 have seen an improvement. The CIVICUS Monitor, which annually tracks the rights of civil society organizations in each country, highlights that only 4 per cent of the world's population lives in countries where the rights of civil society organizations to operate freely are widely respected.

Source: World Cities Report, 2022

Civil society engagement in urban planning is under threat

Civil society plays a key role in ensuring that voices for all, especially marginalized groups, are heard by decision-makers and can participate in ongoing debates on solutions and governance for their local areas. Beyond acting as advocates, civil society organizations model innovations, and are well positioned to adapt ideas to the local context, which, if successful, can contribute to altering ways of doing, organizing, and thinking the functioning of cities. The promotion of policies, strategies and instruments that advance the involvement and engagement of citizens, residents and civil society in urban management and governance is thus critical for the preservation of local democracy,

representativeness, and social inclusion. However, there is evidence that political and civil liberties are generally under threat at the national level (Box 11). While most of the available evidence is drawn from assessments conducted at the global level, trends assessed at the national, sub-national and city levels depict similar patterns where civil society engagement remains very limited.

The existence of structures for civil society participation in urban planning is limited

In terms of urban planning, at least 50 per cent of experts in UN-Habitat's survey of 272 cities indicate that their cities offer structures for civil society participation in urban planning that are direct, regular and democratic (52 per cent, 50

Figure 3.8: Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically
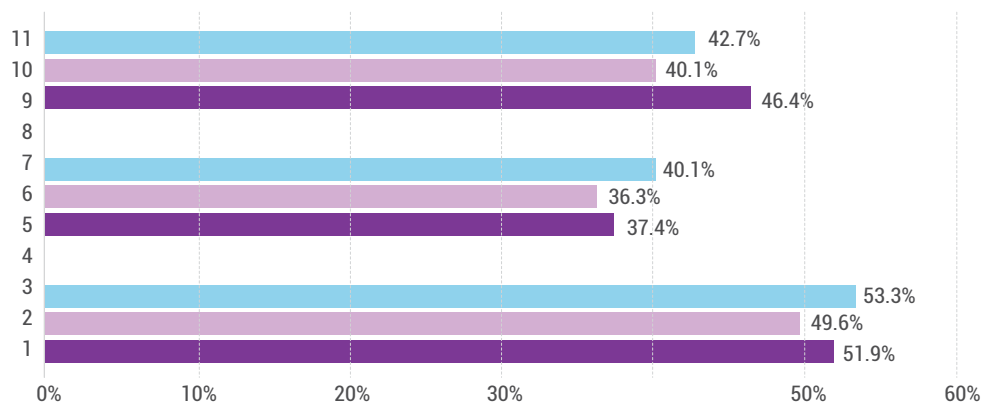
Source: UN-Habitat Urban Indicators Database, 2023

per cent and 53 per cent, respectively). The data also shows that cities are less likely to offer their citizens options to participate in budget decision-making processes; only 37 per cent, 36 per cent and 40 per cent of experts agree that cities have structures for civil society participation in budget decision-making that are direct, regular and democratic, respectively. Similarly, civil society participation in the evaluation of urban management performance seems to be low, with only 40 per cent of experts indicating that cities offer regular opportunities to evaluate their management performance (Figure 3.8).

Civil society participation in urban planning and management varies across countries

Results vary across countries. In Brazil, for example, data from 56 cities shows that 46 per cent of respondents are satisfied with the current structure for civil society participation in urban planning and evaluation of the performance of urban management (including direct, indirect and democratic structures). However, 57 per cent of experts identify that their cities offer them regular opportunities to participate in urban budget decision-making processes, with more than 50 per cent agreeing that cities offer opportunities for participation of marginalized groups in urban processes. Experts in 19 cities in Portugal are less satisfied, with only 31 per cent indicating that their cities have structures for civil society participation in urban planning and evaluation of the performance of urban management, and only 26 per cent stating that they are satisfied with the public participation of civil society in urban budget decision-making.

Limited opportunities for local community in climate action

As one of the key challenges facing humanity today, public participation is also critical for effective climate action. A review of the nationally determined contributions (NDCs) by signatories of the Paris Agreement on climate change indicates that most parties (79 per cent)

referred to formal arrangements in place for domestic stakeholder consultation, although only 29 per cent described the role of local communities and the role, situation and rights of indigenous peoples in the context of their NDCs.[66] An analysis of citizen participation in 58 nature-based solution case studies conducted in 21 cities demonstrated that meaningful citizen participation tended to be present in around 40 to 70 per cent of programmes. It should also be noted that local and regional governments participation in nationally-led processes on climate action mostly disregard the quintessential role of these local actors in climate action strategies.

Bottlenecks to progress

Target 11.3 aims to enhance inclusive and sustainable urbanization by building capacity for participatory planning and management processes. Below are five of the biggest bottlenecks in achieving progress on this target.

1. *Limited Institutional Capacity:* Many countries lack the institutional capacity and expertise to effectively plan and manage urbanization processes. Weak governance structures and inter-agency coordination,, inadequate urban planning frameworks, and limited technical capabilities hinder the implementation of sustainable and inclusive urban development strategies and thus participatory processes.

2. *Inadequate Policy Frameworks:* The absence of comprehensive and coherent policy frameworks specifically tailored to sustainable urbanization and human settlement planning can impede progress. Without appropriate policies, regulations, standards, and guidelines, decision-making processes may lack the necessary direction and coordination required to achieve SDG target 11.3.

3. *Fragmented Decision-Making:* Urban development often involves multiple stakeholders, including government agencies,

local authorities, communities and private sector entities. Inadequate coordination and collaboration among these stakeholders can lead to fragmented decision-making and conflicting interests, hindering progress towards inclusive and sustainable urbanization.

4. *Insufficient Financing:* The financial resources required to implement sustainable urbanization strategies and provide inclusive housing and basic services are often limited. Many countries face challenges in mobilizing adequate funding from domestic and international sources, thus hindering the implementation of comprehensive urban development plans.

5. *Social Inequality and Marginalization:* Socioeconomic disparities, discrimination, and marginalization persist in many urban areas. Inequalities in access to adequate housing, basic services, and decision-making processes hampers inclusive and sustainable urban development. Efforts must be made to address these social inequities and ensure the participation and representation of all segments of society in urban planning and management.

Intervention highlights

Youth Lead the Change: participatory budgeting in Boston (children and youth)

In 2014, the City of Boston (USA) introduced *Youth Lead the Change (YLC)* – an initiative that empowers local youth to make decisions about how to spend $1 million of the city's annual budget.[67] The initiative allows youth (aged 12-22) to propose ideas, develop proposals, and ultimately vote on which projects to implement in the city. These elements aim to help educate youth on the municipal budgeting process and encourage greater civic engagement, particularly among disadvantaged or at-risk youth (e.g., youth experiencing homelessness or youth living in violent neighborhoods).[68]

Since its introduction, the results of the YLC initiative have been substantial. Thousands of youth have been able to vote on important local issues, providing many participating youth under 18 with their first government-related voting experience. Many participants have furthermore reported both increased knowledge and skills, as well as feelings of empowerment and agency in relation to important local issues.[69] YLC thus provides an important model for how local governments around the world can help foster greater participation among youth, persons with disabilities or any other disenfranchised group of citizens.

Protecting Guadalajara's forests beyond city limits (metropolitan governance)

In 2015, the Metropolitan Area of Guadalajara (AMG) in Mexico established the Metropolitan Institute of Planning, or IMEPLAN in Spanish, to help provide integrated planning solutions to issues affecting the entire metropolitan area. The central idea was for IMEPLAN to achieve this goal by engaging citizens from across the metropolitan area in various types of participatory processes, including workshops, roundtables and seminars.

One of the key issues that IMEPLAN has been able to address is the anthropogenic destruction of Guadalajara's forests. Prior to the creation of IMEPLAN and the AMG, forests and woodlands were managed by local governments, which often lacked the resources to adequately protect and conserve these areas. Given this challenge, IMEPLAN advocated for the creation a new metropolitan-level body – the Metropolitan Urban Forest Agency, or AMBU in Spanish – to specifically govern the urban forests of the Guadalajara metropolitan area. With a new funding structure allowing for a combination of public, donated and self-generated funds, AMBU was able to promptly address the ecological challenges of the forests by setting restoration criteria, leveraging green technologies and implementing education campaigns.

The IMEPLAN initiative is significant for two main reasons. First, by engaging citizens in participatory processes and integrating planning processes, the initiative has helped improve conservation of Guadalajara's forests and address other pertinent urban issues. And second, IMEPLAN has demonstrated the potential for municipalities to work together to address issues that can only be solved at a metropolitan level – something that has been historically difficult for municipalities in Mexico, Latin America and elsewhere in the world. Thus IMEPLAN helps demonstrate how cities can use participatory processes to overcome fragmentation and deliver the types of coordinated responses needed to address complex regional issues.

Empowering Accra's old-town businesses through community-managed microfinancing (marginalized and vulnerable populations)

In 2017, UN-Habitat partnered with the city of Accra, Ghana, to implement a community-upgrading project in the informal settlements of Ga-Mashie, the city's old town.[70] The project established the Ga-Mashie Development Committee (GMC), an elected body overseeing the settlement's community development financing. The GMC has helped develop the community by providing flexible, low-interest microfinancing to merchants and small businesses who are often excluded from the country's formal financial services.

In just a few years, the project has made a substantial impact on community development. More than 5,000 residents have participated in the community fund, with women comprising more than half of the fund's leadership. The initiative has furthermore involved more than 300 women and youth in project implementation, helping to fund the development of 5 km of new paved roads and other essential infrastructure upgrades throughout the community.

Restoring Gamcheon village's vibrancy (culture)

I In the 1950s, thousands of Korean War refugees settled on a small hill outside the city of Busan, Republic of Korea.[71] The refugees rapidly built many colorful houses on the hill, creating a vibrant village known as Gamcheon. Post-war industrialization helped the village quickly grow to a peak population of more than 30,000 people. However, as industrialization slowed in the village, many of its residents left for other cities. By the early 21st century the village's population had fallen to under 10,000 residents, leaving many of the its uniquely colorful homes abandoned and in disrepair.

To help restore and preserve these unique homes, in 2009 the local government of Saha-gu (the district comprising the village) introduced the Gamcheon Cultural Village programme.[72] The initiative aimed to both restore the village's unique architecture and more broadly regenerate much of its declining infrastructure and services. To this end, the local government established a participatory council of more than 120 local artists, planners and residents to help design and execute regenerative art and infrastructure projects across the village. During this time the council succeeded in introducing new public infrastructure, including washing facilities, and organizing cultural events, including an environmental design competition, gallery exhibition and art installations.

Since its implementation in 2009, the Cultural Village programme has achieved substantial success. Gamcheon is now one of Republic of Korea's most popular tourist destinations, attracting more than 2 million visitors each year. This success has created hundreds of jobs in the village and helped to revitalize both its economic and cultural vibrancy. The programme furthermore continues to be led by members of the community, demonstrating the impact that integrated and participatory planning can have on both sustained cultural restoration and development.

Target 11.4
Strengthen efforts to protect and safeguard the world's cultural and natural heritage

Indicator 11.4.1: Total expenditure per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by source of funding (public, private), type of heritage (cultural, natural) and level of government (national, regional and local/municipal)

Global Status: Inadequate data to determine

Quick facts

- Nearly one third of the 1,157 World Heritage properties are cities or parts of cities or settlements sites and more than 70 per cent of cultural World Heritage properties are located in urban areas.

Figure 10: data availability for SDG 11.4.1 Indicator

© 2023 Mapbox © OpenStreetMap

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- Expenditure on cultural and natural heritage predominantly occurs at the national level, rather than subnational (regional or local). In some countries, however, the average share of local government expenditure on cultural and natural heritage is significant.

- Public expenditure on heritage for developing countries is significantly less compared to developed countries.

- The number of countries for which data is available for indicator 11.4.1 doubled from 30 countries in 2020 to 60 countries in 2022.

Progress synopsis

Although there is no SDG focused exclusively on culture, the 2030 Agenda recognizes the need to safeguard the world's cultural and natural heritage from potential threats and acknowledges the important role of cultural heritage in promoting social cohesion, cultural diversity, people's identity and wellbeing. One of the key entry points for culture in the 2030 Agenda is SDG target 11.4, which tracks global fiscal expenditures to safeguard cultural heritage. Member States that are also signatories to the World Heritage Convention are already legally obligated to protect historic sites of so-called "outstanding universal value" and invest in their maintenance and upkeep. Since 70 per cent of UNESCO World Heritage Sites are located in urban areas, this responsibility is primarily an urban one. In recognition of this fact, the world heritage community has increasingly adopted an urban lens and today uses the framework of "historic urban landscape" in cultural heritage analysis and policymaking.

The value provided by the world's cultural and natural heritage is multidimensional and arguably immeasurable. Although it is not possible to

Box 11: Centering heritage protection in global sustainable development

The UNESCO World Heritage Convention protects the most outstanding heritage sites for their cultural and natural value, including for biological diversity, in the world and recognizes that nature and culture are two interconnected dimensions of our heritage. World Heritage sites include a range of ecosystems cover over across 360 million ha of land and sea across the globe, in all ecosystems., They making a significant contribution to biodiversity conservation, and their protection helping to safeguards the important ecosystem services and benefits these sites provide, thus enabling promoting environmental sustainability, ecological resilience, and climate change adaptation and mitigation. World Heritage sites are chosen for their outstanding universal value. This international recognition is the 'litmus test' test for global efforts to conserve cultural and biological diversity and address climate change with the engagement of local communities in and around them. Sustainable development thinking is now embedded in the processes that underpin the real-world application of the World Heritage Convention by the adoption of the *"Policy Document for the integration of a sustainable development perspective into the processes of the World Heritage Convention"* that is also known as the World Heritage Sustainable Development Policy (WH-SDP)2 by the 20th General Assembly of States Parties (Resolution 20 GA 13; UNESCO, 2015). This has been followed up by integrating related concepts, actions and monitoring as appropriate into the , the World Heritage Policy Compendium, and the 3rd Cycle of the Periodic Reporting exercise. It has continued to be applied by States Parties and by sites. Both the Arab States region and Africa region of the World Heritage Centre have developed regional action plans, while the Asia and Pacific region is currently developing such a plan with strategic objectives related to sustainable development. Also, the World Heritage relevant SDGs are mainstreamed in the conservation and management of at least 223 World Heritage properties, including 68 in Africa and 10 in small island developing States from 2018-2022

In 2022, UNESCO marked the 50th anniversary of the 1972 Convention concerning the Protection of the World Cultural and Natural Heritage under the theme "The Next 50: World Heritage as a source of resilience, humanity and innovation". UNESCO brought together 50 leading thinkers to imagine the future of World Heritage through an interdisciplinary lens and launched a call for research-driven articles. The year-long programme culminated in November 2022 at an international conference in Delphi, Greece, where a three-part action plan towards more representative, accessible and sustainable World Heritage was presented.

measure the value and importance of the world's heritage in purely monetary terms[73], as a tangible proxy, indicator 11.4.1 can help the global community gauge how many countries make monetary investments in protecting and conserving humanity's heritage sites across the continuum of human settlements. When interpreting this indicator, what is important is the relative trend of this investment over time (increasing, decreasing or stable) rather than the comparison of the actual value between countries.

Preservation, conservation and protection of cultural and natural heritage can come from a variety of sources. A national government can allocate funding to its national park system to safeguard a natural heritage site. A private foundation can underwrite the restoration of a historic monument. A local government can spend public funds on urban planning efforts to protect a cultural site from development that might encroach on the buffer zone around the site in question. States Parties can also make requests to the World Heritage Fund for international assistance.

SDG 11 plays a pivotal role to localize development and pioneer innovative approaches to sustainable development, drawing on linkages with other SDGs, from culture, education and climate action to social inclusion and peace building. Therefore, SDG 11.4.1, focuses on accelerating efforts to protect and safeguard the world's cultural and natural heritage. Unlike most targets for Goal 11 that are focused on the urban/city level, target 11.4 represents national efforts in the safeguarding and protection of cultural and natural heritage.

The value placed on the world's cultural and natural heritage is multidimensional hence arguably immeasurable. Although it is not possible to measure the value and importance of the world's heritage in purely monetary terms,[74] as a tangible proxy, SDG Indicator 11.4.1 can help us get a sense of how many countries invest in protecting and conserving humanities' heritage in urban and rural settlements in monetary terms. When interpreting this indicator, what is important is the relative

The value placed on the world's cultural and natural heritage is multidimensional hence arguably immeasurable

trend of this investment over time (increasing, decreasing or stable) rather than the comparison of the actual value between countries.

Global Trends and Conditions

While the coverage rate increased by 100 per cent from the first iteration in 2020 to the third in 2022, the number of countries reporting data for 11.4.1 Indicator is not sufficient to report global or regional figures. This indicator looks at investment at all levels of government. An increasing number of countries are able to report data by level of government. The UNESCO Institute of Statistics (UIS) collects data via an annual survey of expenditure on cultural and natural heritage that was first administered in June 2020.

At 70 per cent, a majority of global cultural properties are located in urban areas

The World Heritage Committee is responsible for the implementation of the World Heritage Convention. Since 2011, it has promoted a holistic approach to protecting the values of cultural heritage in urban areas in their wider

Picture of Park Guell of Barcelona captured during golden hour, UNESCO World Heritage since 1984
© Shutterstock

setting. Of the 1,157 World Heritage properties today, nearly one third are World Heritage Cities and more than 70 per cent of cultural World Heritage properties are located in urban areas or settlements, making them vulnerable to the relentless pressures of urbanization and poorly conceived development projects. More than 50 per cent of all state of conservation reports examined relate to heritage in urban areas, reflecting the complexities of reconciling urban development with heritage conservation. Furthermore, climate change is one of the most urgent and critical issues facing World Heritage properties today, interconnected with sustainable development, making the 2011 Recommendation on the Historic Urban Landscape (2011 Recommendation)[75] a necessary and vital tool to manage urban heritage.

The 2011 Recommendation guides policymakers in integrating policies and practices of conservation of the built environment into the wider goals of urban development that respect the "historic layering of cultural and natural values and attributes." Additionally, during the UNESCO Third Member States Consultation on the Implementation of the 2011 Recommendation on the Historic Urban Landscape, 187 reports from 69 Member States and 125 cities and settlements were received that reported on the 2011 Recommendation implementation. The 2011 Recommendation approach goes beyond the notion of "historic centre" to include the broader urban context and its geographical setting, including a site's topography, geomorphology, hydrology and natural features. It also includes infrastructure above and below ground, open spaces and gardens, land use patterns and spatial organization.

The 2011 Recommendation approach applies to all historical cities and settlements—not only those inscribed on the World Heritage List—and shifts focus from "monuments" to the urban fabric as a whole, also encompassing intangible dimensions of heritage related to diversity and identity, including social and cultural practices and values of the local communities.

Figure 12: Average share of expenditure from local government in cultural and natural heritage 2018–2021
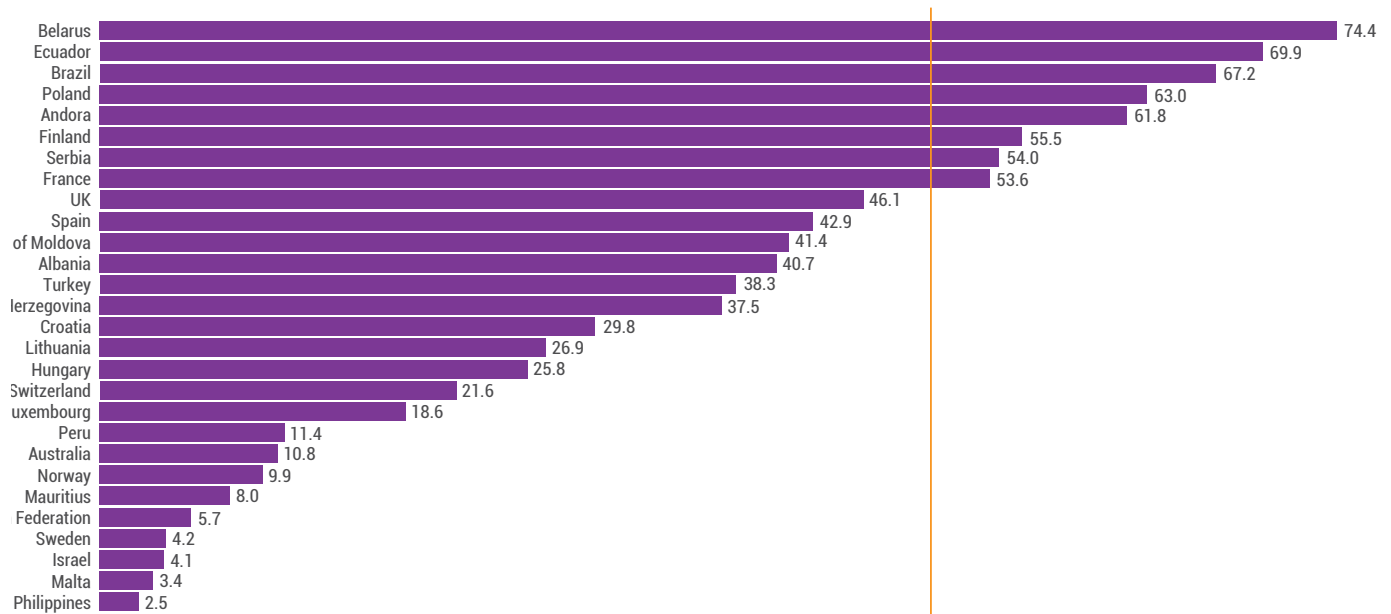
Country	Value
Belarus	74.4
Ecuador	69.9
Brazil	67.2
Poland	63.0
Andora	61.8
Finland	55.5
Serbia	54.0
France	53.6
UK	46.1
Spain	42.9
of Moldova	41.4
Albania	40.7
Turkey	38.3
Ierzegovina	37.5
Croatia	29.8
Lithuania	26.9
Hungary	25.8
Switzerland	21.6
uxembourg	18.6
Peru	11.4
Australia	10.8
Norway	9.9
Mauritius	8.0
Federation	5.7
Sweden	4.2
Israel	4.1
Malta	3.4
Philippines	2.5

Public expenditure on heritage for developing countries is significantly less compared to developed countries

The results for the 57 countries for which data are available from 2018 to 2021 show that the range of values for public expenditure on heritage for developing countries is significantly less compared to developed countries. As a result, the median public expenditure on heritage preservation for European countries reporting was 72.9 PPP\$ (constant 2017 USD) per capita, compared to a median of less than 15.00\$ for the other regions such as 12.5 PPP\$ for Northern Africa and Western Asia, 10.5 PPP\$ per capita for Latin America and the Caribbean, 4.6 PPP\$ for Eastern and South-Eastern Asia and less than for 1 PPP\$ for Sub-Saharan Africa.

The average share of local government expenditure on cultural and natural heritage is significant in some countries

Out of the 28 countries reporting disaggregated data for indicator 11.4.1 by level of government between 2018 and 2021 to the UNESCO Institute of Statistics, eight reported more than 50 per cent expenditure on cultural and natural heritage undertaken by local authorities. That figure is most likely an underestimate in view of the difficulty to collect data pertaining to this indicator at the urban level (Figure 12). Local government expenses in Belarus, Brazil and Ecuador represented two-thirds of the expenses on cultural and natural heritage in those countries.

Cultural heritage preservation funding suffered during the COVID-19 pandemic in most of the world

Most regions cut their expenditures on cultural and natural heritage at the start of the COVID-19 pandemic. With the exception of Central and Southern Asia, the results for 25 countries from all SDG regions public investment in heritage preservation decreased in 2020 compared to 2019. While some countries put in place special measures to support the culture sector, others decreased their expenditure in the context of limited funds. Colombia showed among the greatest reductions, with a 30 per cent in cultural heritage expenditure.

Figure 12: Public investments for safeguarding cultural and natural heritage between 2019 and 2020.

Change in public expenditure 2019-2020 in %

● NAT   ● CULT
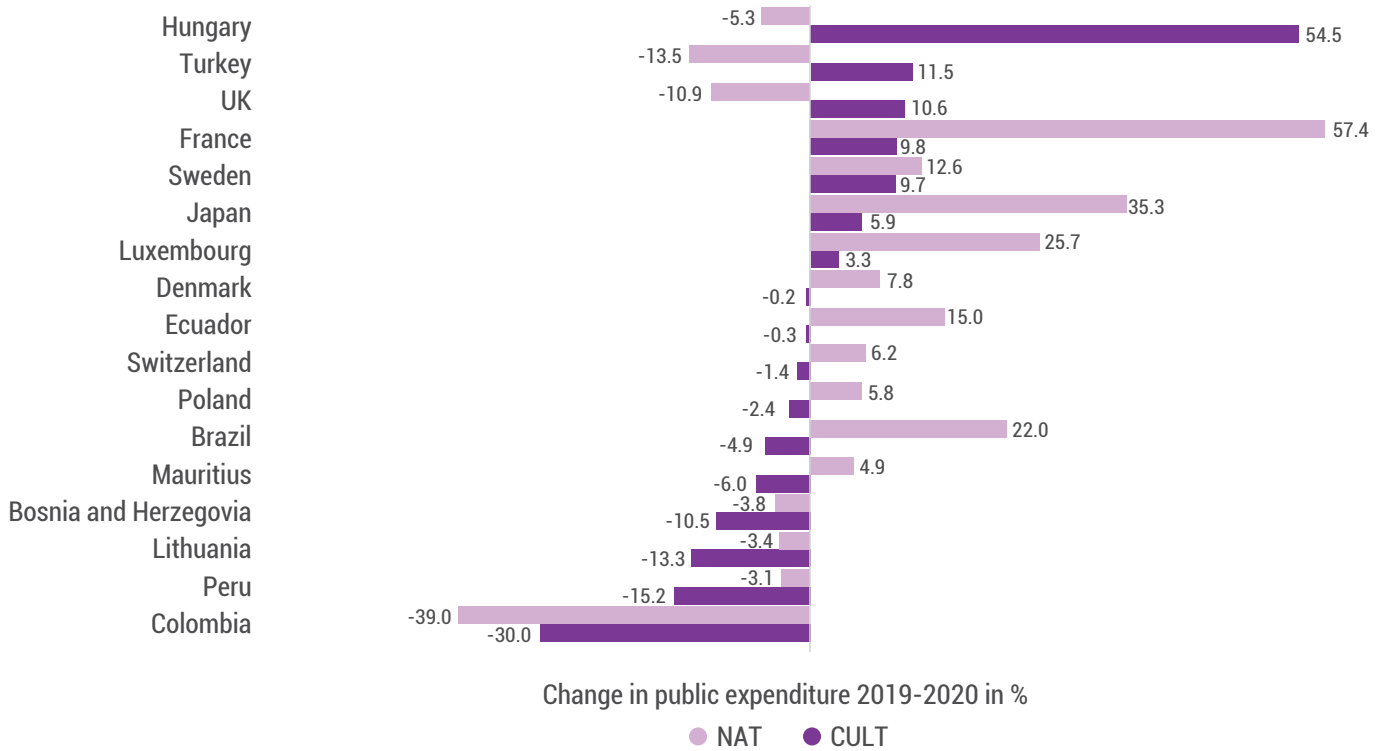
Examples of support measures include Czech Republic; where in 2020 an anti-crisis package was designed that included a reduction on value added tax for several activities including museum admissions. Other countries focused on strengthening their infrastructure and facilities. Japan, as part of emergency economic measures, invested $20.1 billion to fund infection prevention measures in cultural infrastructure such as museums.[76]

Culture is a driver of urban economies and employment

As reported in a UNESCO-World Bank 2021 publication, up to 13 per cent of urban employment in major cities is based on the creative industries. Moreover, the bulk of cultural and creative industries—which account for 3.1 per cent of global GDP—are hosted in urban settlements. Cultural tourism is another core component of urban economies. In 2019, prior to the global lockdown, tourism injected

$8.9 trillion into the global economy, or 10.3 per cent of global GDP, with cultural tourism accounting for an estimated 40 per cent of all tourism worldwide—the widest share of which is also driven by urban settlements. Cities are increasingly investing in culture to explore more inclusive, locally-based economic patterns, while others seek to leverage culture and creativity to transition to post-industrial economic models, focused on knowledge and innovation.

Safeguarding heritage is also a strategic priority for many small- to medium-sized cities, particularly in developing countries, where heritage-related activities account for a large proportion of the economic flows and local jobs. Over time the focus of city-level tourism strategies has shifted to encompass not only monuments, museums and religious sites but also intangible cultural heritage, such as food/gastronomy, handicrafts, festivals and performing arts. Cities are increasingly turning to culture to renew their development models, as illustrated by the 40

members of the World Cities Culture Forum, whose 2022 report shares a vision of the transformative impact of culture on urban economies and societies. At the global level, such recognition of the power of culture for inclusive growth is reflected by the unprecedented inclusion of culture as a dedicated workstream in the G20, under the successive presidencies of Saudi Arabia (2020), Italy (2021), Indonesia (2022) and India (2023).

Sustained policy, capacity and financial support to Member States for heritage conservation and management can improve 11.4.1 outcomes

The provision of support for policy design and execution continues to accelerate progress with SDG 11.4.1, drawing on consultations with various actors on policy for heritage conservation. The *Compendium of Policies for the World Heritage Convention (WHC)*, which constitutes a consolidated reference tool of World Heritage policies for better decision-making by the Committee and States Parties and was endorsed by the Committee in July 2019. The Committee also approved specific changes to the Operational Guidelines to translate the principles of the World Heritage Sustainable Development Policy (WHSDP) into actual operational procedures, in addition to its mainstreaming in the main statutory processes such as the periodic reporting exercise. An update to the 2007 policy document on the *Impact of Climate Change on World Heritage Properties* is currently under preparation. A first global scientific assessment of greenhouse gas emissions and sequestration by forests in World Heritage sites has also been developed.

States Parties, with support from UNESCO, continued to develop and implement national and subregional capacity-building strategies and activities focused mainly on heritage conservation, risk preparedness, climate change mitigation and sustainable management, with the involvement of site managers, experts and local communities, including women. From 2018–2021, the conservation and management capacities at

240 World Heritage properties were enhanced, of which 59 were in Africa and 21 in SIDS.

Requests from State parties for support through the World Heritage Fund also continued to be conveyed. States Parties submitted 175 International Assistance requests for funding from the World Heritage Fund since January 2018, of which 78 were approved, including 59 per cent from the Africa region and 2.5 per cent from SIDS. In all regions, most of the funded projects concern management activities or conservation works. In parallel, 11 emergency assistance requests have been approved since January 2018, one of them is to support the fight against bird flu at Djoudj National Bird Sanctuary in Senegal. Support was also provided to African states to revise their tentative lists and prepare nomination dossiers.

Heritage conservation and management can respond to crises and disasters

In order to support culture in crisis situations—both related to conflicts and natural disasters—UNESCO engaged in key emergency response measures around the world. Since the outbreak of the war in Ukraine, UNESCO, alongside the Ukrainian authorities and international partners, has mobilized to engage in key emergency response measures to safeguard cultural heritage and support artists and culture professionals. Following the flooding in Pakistan, UNESCO mobilized support under its Heritage Emergency

Promoting the role of culture to support peacebuilding and reconciliation in conflict-affected urban settlements

The UNESCO-World Bank position paper Culture in City Reconstruction and Recovery (2018) offers operational guidance for policymakers and practitioners for the planning, financing and implementation phases of post-crisis interventions for city reconstruction and recovery—both in post-conflict and post-disaster situations. Likewise, the UNESCO's flagship initiatives and Revive the Spirit of Mosul demonstrate the power of culture to engage communities in resilience processes. In Yemen, the Cash for Work programme, implemented by UNESCO with support from EU, also demonstrates how restoration of urban heritage following conflict and natural disaster can support youth employment and skills building, thus also countering the effects of violent extremism.

Fund and International Assistance under the World Heritage Convention, conducting technical missions to the two impacted World Heritage sites, as well as supporting the preparation of a post-disaster needs assessment for culture. UNESCO is also supporting Yemen by creating employment opportunities for youth in historic cities and supporting small and micro-enterprises and cultural civil society organizations in leveraging culture for peace building, social cohesion and sustainable economic growth.

Through its flagship Li Beirut ("For Beirut") and Revive the Spirit of Mosul initiatives, UNESCO has continued to provide support for the safeguarding of cultural heritage and promotion of creativity. In Lebanon, policy and technical support for heritage protection in the impacted areas was provided, including through 3D documentation training. The rehabilitation of the Sursock Museum began in 2022, and resilience of Lebanese artists was supported, also through the organization of the Al-Bustan International Festival in March 2022. In Iraq, UNESCO launched the reconstruction of Al-Nuri Mosque, Al-Hadba Minaret and the churches of Al-Tahera and Al Saa'a Church Complex (Lady of the Hour) in 2022, and the rehabilitation of the "House of Prayer" as a multipurpose educational and cultural centre in collaboration with the Aliph Foundation. The restoration and rebuilding of 124 historic houses are also ongoing.

Enhanced monitoring of the World Heritage Convention generates necessary data to assess progress on SDG 11.4.1

UNESCO has developed a full set of user-friendly learning modules and guidance materials (translated whenever possible in Arabic, Portuguese and Spanish) to support States Parties leading autonomously the third cycle of the periodic reporting exercise on the World Heritage Convention. Their use throughout the third cycle, implemented in the Arab region since September 2018, in the Africa region since September 2019, in the Asia-Pacific region since September 2020 and in the Latin America and the Caribbean region since September 2021, provides a common framework, promotes cooperation and enhances understanding of the implementation of the Convention. Thanks to these tools, the Africa region succeeded in 2020 in submitting 100 per cent of the online questionnaires for the first time in the context of the periodic reporting exercise. Furthermore, the UNESCO Institute of Statistics conducted the first survey to collect data on cultural and natural heritage expenditure June 2020–February 2021: 62 countries responded and 28 reported public expenditure included in the indicator calculations. Implementation of the UNESCO Culture|2030 Indicators is currently ongoing in 14 pilot countries and 14 cities.

Protection World Heritage

The conservation and revitalisation programme of the Ancient City of Ping Yao is a comprehensive plan comprising multiple actions with the overall aim to enhance heritage conservation and liveability while promoting sustainable social and economic development. Through innovative management and financing models and a combination of conservation actions aimed at both tangible and intangible heritage, the programme aims to make a contribution to the long-term sustainability of the historic city. A comprehensive conservation framework includes the ancient defence system, traditional urban planning layout, street patterns and public spaces, traditional courtyard houses, modern industrial heritage, and intangible cultural heritage. New cultural industries have been developed in abandoned factory sites such as the former Diesel Engine Plant, now transformed into the Pingyao Festival Palace, a cultural and community centre used for events. At the same time, funding schemes and policies have been put forward to promote and conserve intangible cultural heritage and crafts, including through sustainable tourism and cultural events. As a result of the programme the state of conservation and liveability of the city has improved, especially through the restoration programmes, subsidies and restoration guidelines. More than 90 courtyard buildings have been restored in an initiative which received an Award of Merit during the 2015 UNESCO Asia-Pacific Awards for Cultural Heritage Conservation.

Source: https://whc.unesco.org/en/canopy/ping-yao/

The role of culture in creating sustainable cities is gaining traction

The role of culture for sustainable cities has gained traction with enhanced recognition by decisionmakers, including through greater decentralization and transfer of competences to local authorities in the field of culture, from cultural access and cultural and artistic education to urban heritage inventorying and conservation, the promotion of cultural expressions, cultural tourism and support to the creative economy. A shift is documented towards placing heritage as a focus for strategic planning in urban management.[77] Cultural heritage is increasingly central to the local development strategies of cities and local governments, from small- and medium- sized cities to metropolises, to achieve a diversity of development objectives, cutting across all SDGs. Culture-based urban strategies are notably intended, among other examples, to sustain social cohesion in increasingly multicultural cities, notably through meaningful cultural contribution of migrant and refugees to their host cities or the enhanced access to culture for marginalized or vulnerable populations; to foster greener, more compact and people-centered urban planning, building on the values enshrined in urban heritage; to culture-sensitive public spaces and transportation facilities, allowing access to, participation in and enjoyment of cultural diversity; to enhance learning outcomes and skills development – notably in the creative sector, cultural tourism or cultural conservation areas – with a view to supporting employment, targeting in particular women and the youth.

Culture's growing role in sustainable urban development is also reflected by the continuous growth of the membership of culture-related cities networks and the expansion of their scope of action, from climate action to education and social inclusion. Among them, the UNESCO Creative Cities Network has grown from 180 cities in 72 countries in 2018 to almost 300 cities in 90 countries in 2023, engaged in a diversity of cultural domains, from crafts, music, film and literature to design, media arts and gastronomy.

This sustained growth across all typologies of cities reflects a growing aspiration from cities around the world, both in the Global North and the Global South, to harness culture and creativity for sustainable urban development. The global network of World Heritage Cities is equally expanding, totaling 323 cities by the end of 2022, which accounts for one-third of all World Heritage sites worldwide, making urban heritage the most represented category on the World Heritage List. Likewise, some 1060 cities and other constituencies were reported by UCLG to be engaged in the network's culture agenda in 2022 compared to 750 in 2017, highlighting not only the level of cities' engagement towards culture, but also the diversity of partnerships and alliances mobilized in that endeavour. Likewise, culture is increasingly at the forefront of global cities networks dedicated to inclusion and rights, such as the UNESCO International Coalition of Inclusive and Sustainable Cities.

This enhanced commitment to the promotion of cultural rights attention city level is notably enshrined in the 2020 Rome Charter enacted by UCLG, promoting cities as privileged grounds for the exercise of rights and open-air laboratories for pluralism, as exemplified by innovative policy developments taken by local or regional governments aimed at promoting culture as a public service or as a public good. Likewise, culture is increasingly at the forefront of global cities networks dedicated to inclusion and rights, such as the UNESCO International Coalition of Inclusive and Sustainable Cities – ICCAR.

Pelourinho in Salvador, Brazil © Shutterstock

Box 13: Stepping up the urban dimension of UNESCO Culture actions

Over the past few years, UNESCO has stepped up its work on cities across its culture conventions.

- The 2011 Recommendation is an important tool to strengthen UNESCO's action in the field of urban heritage conservation to integrate with urban development plans and processes advancing sustainable development and climate resilience, within and beyond the World Heritage context. The tenth anniversary of the 2011 Recommendation was celebrated with a global event in 2021, as well as with regional technical sessions. Collectively these events brought together 24 mayors and city leaders, 35 high-level experts, and nearly 1,500 national focal points, site managers and experts. Case studies from across 39 countries were presented and UNESCO launched the HUL Call for Action to raise awareness and engage cities everywhere regarding urban heritage.

- UNESCO has developed digital platforms and tools for supporting implementation and technical knowledge: the e-magazine *Urban Notebooks* (April 2020–December 2021); the World Heritage Canopy, a digital platform of innovative heritage-based solutions and practices for sustainable development that integrates the 2011 Recommendation; the Urban Heritage Atlas, a digital tool for analysing and documenting attributes of urban heritage for World Heritage cities; and a for the 2011Recommendation that is currently under development; and the 2022 book *UNESCO Creative Cities' response to COVID-19: from immediate action to long-term recovery*.

- In 2020, UNESCO conducted World Heritage City Dialogues and organized World Heritage City Labs with site managers and focal points across 83 sites and reinforced the urban heritage capacities of 74 specialists from 44 countries.

- UNESCO Creative Cities deployed a wide range of policies to support immediate response to the COVID-19 pandemic (UNESCO, 2020), while also laying the ground for longer term longer term recovery strategies (UNESCO, 2022).

- Partnerships with regional and international organizations: The World Heritage Centre has undertaken upstream engagement to align sustainable development policies and priorities with World Heritage, including urban regeneration. This includes the European Commission's efforts to redirect their initiatives and priorities on the legacy of the European Year of Cultural Heritage as well as with the Union for the Mediterranean in integrating urban heritage management in urban regeneration policies and actions. The principles of the 2011 Recommendation are echoed in the Davos Declaration: Towards a high-quality Baukultur for Europe (2018), adopted at the Conference of Ministers of Culture organized by Switzerland (20-22 January 2018). In 2023, UNESCO supports the Davos Alliance.

- The 2003 UNESCO Convention on the Safeguarding of Intangible Cultural Heritage also increasingly encompasses urban issues. As rural and migrant populations are converging in cities—bringing along their cultural practices, representations, expressions, knowledge systems and skills—these living practices are increasingly impacted by urbanization, under the combined effect of rural-to-urban migration, climate change, land scarcity or increased living costs. In view of their critical importance for social cohesion and resilience, increased work was undertaken over the past few years to document and monitor this impact in relation to SDG 11, notably through the Dive into Intangible Cultural Heritage online tool.

- The 2003 Convention has been carrying out through field experimentation as part of a dedicated project on community-based inventories of intangible heritage in urban areas, aimed at identifying income-generating living heritage practices, which are key to the sustainable development of the communities, such as traditional crafts and performing arts, as well as construction-related practices and traditional occupations.

- Guidelines to safeguard intangible heritage in an urban context are currently being developed to further support city level decisionmakers.

- A wide range of policy measures were engaged by the UNESCO Creative Cities to support immediate response to the COVID-19 pandemic (UNESCO, 2020), while also laying the ground for longer term longer-term recovery strategies (UNESCO, 2022). Such increased policy engagement is also reflected by a growing commitment of local governments in funding the cultural sector.

- The UNESCO Cities Platform that brings together more than six different programmes on cities across the different sectors, including the World Heritage Cities Programme, has undertaken some initiatives specifically to raise awareness of UNESCO's multidisciplinary approach to sustainable development in cities. The UNESCO Cities platform, which includes the World Heritage Cities Programme, through a comprehensive vision for coordinated action, reinforces the linkages between all areas of action of UNESCO including participation in the World Urban Forum in February 2020 and through online meetings such as "Urban solutions: Learning from cities' responses to Covid-19" in June 2020. In the framework of an intersectoral project on the prevention of violent extremism funded by the UN Office of Counter-Terrorism and Canada, WHC

in collaboration with the Coordinating Committee for International Voluntary Service organized an exchange programme for young participants from Jordan, Libya, Morocco and Tunisia at two World Heritage Volunteers camps in Morocco in July 2018. It resulted in the sharing of experiences and reflection on alternatives to extremist ideologies.

- The development and implementation of UNESCO Culture|2030 Indicators for measuring the role and contribution of culture to the 2030 Agenda for Sustainable Development at the national and urban levels. This framework of indicators includes fields of culture across the six UNESCO Culture Conventions and the three UNESCO Culture Recommendations. It has been or is currently being implemented in 13 countries and 17 cities.

Bottlenecks to progress

SDG Target 11.4 aims to strengthen efforts to protect and safeguard the world's cultural and natural heritage. It focuses on the preservation, restoration and promotion of cultural and natural heritage sites. Listed below are some of the biggest bottlenecks to achieving Target 11.4.

1. *Inadequate Preservation Strategies:* Many regions lack effective strategies for the preservation and safeguarding of cultural and natural heritage sites. Insufficient conservation measures, lack of maintenance and inadequate legal frameworks can lead to the degradation and loss of valuable heritage assets.

2. *Insufficient Awareness and Education:* Limited public awareness and understanding of the importance of cultural and natural heritage can hinder efforts to protect and safeguard these assets. Inadequate educational programs and outreach initiatives contribute to a lack of appreciation and engagement from local communities and stakeholders.

3. *Unsustainable Development Pressures:* Rapid urbanization, tourism development and infrastructure expansion often exert significant pressures on cultural and natural heritage sites. Inadequate urban planning, inappropriate tourism practices and unchecked development can lead to the deterioration and irreversible damage of these important heritage assets.

4. *Weak Governance and Enforcement:* Weak governance structures, including ineffective regulations and enforcement mechanisms, can impede the protection and safeguarding of cultural and natural heritage. Insufficient coordination among relevant authorities, lack of resources and limited accountability can undermine conservation efforts and lead to illegal activities and encroachment on heritage sites.

5. *Climate Change and Natural Disasters:* The impacts of climate change, including rising sea levels, extreme weather events and natural disasters, pose significant threats to cultural and natural heritage. Inadequate adaptation measures, lack of disaster preparedness and insufficient resilience strategies increase the vulnerability of heritage sites to irreversible damage and loss.

Intervention highlights

Starting at home: Restoring Yangon's public spaces and cultural heritage (social enterprise)

Doh Eain, or "our home" in the Burmeselanguage, is a social enterprise that aims to protect cultural heritage and improve public spaces in Yangon (Myanmar).[78] The enterprise first began working informally in 2015 by helping to restore historically significant family homes.[79] The success of these restorations soon allowed the enterprise to expand into other types of urban renewal projects, such as street art installations, urban gardens and playground renovations. One of the most high profile of these projects was the transformation of a trash-filled alley into a vegetable garden, which used participatory processes to engage both the

community and local government in transforming the public space.

Doi Eain's work demonstrates the substantial impact that social enterprises can have in both preserving culture and improving public spaces through community engagement. Since 2016, more than US$1 million have been invested into the restoration of Yangon homes. This has in turn generated a total of $346,000 for the families owning these historical homes (more than half of whom are classified as either low- or lower-middle-income), enabling them to better preserve and maintain the city's cultural heritage.[80] Furthermore Don Eain's work has also helped create over 19.2 km² of new public spaces, servicing more than 65,000 people living within 500 m of these spaces. This work serves as a model for how social enterprises across the globe can use participatory processes to ultimately achieve substantial improvements in their communities.

Food, art and classes: developing the creative economy in Centro-Lagoinha (local government)

In 2019, the city of Belo Horizonte, Brazil, established the Creative Horizon project to help boost the creative economy of the city's Centro-Lagoinha neighbourhood. The initiative aimed to support local artists and culture through four key interventions: (i) mapping the neighborhood's cultural and touristic assets, such as food, restaurants and music; (ii) a spatial assessment and plan for a pedestrian walkway to reintegrate the neighbourhood with the city centre; (iii) art installations and exhibitions to showcase the neighbourhood's rich history and culture; and (iv) various vocational and professional courses to help develop skills in food, art and entrepreneurship across all parts of the community, including the most vulnerable populations.[81]

Yangon, Myanmar © Shutterstock

The Creative Horizon project offers multiple lessons for local governments seeking to implement similar creative economy initiatives. First, mapping existing cultural assets and developmental challenges is an essential initial step in economic support. Put simply, without understanding the situation, it is impossible to produce an effective solution. Second, local participation in art projects can help make them valuable tools for both economic development and local cultural restoration. Without this engagement, art is less likely to have the same level of cultural impact or preservation. Finally, courses are best offered in areas where the community has demonstrated interest and where some economic opportunities already exist (e.g. existing restaurants in Centro-Lagoinha). This approach will help ensure the highest returns on community investments and greatest potential for the local creative economy.

Balancing preservation and integration: a holistic approach to cultural development in Tunis (cultural policy)

North African cities are renowned for their medinas, the term for compact, walled quarters or "old cities" that frequently date back to the first millennium. In 2011, the city of Tunis (Tunisia) and the Medina Conservation Association, a civil society group, introduced a new cultural policy to help revitalize the city's old quarter.[82] The policy's main objectives are to help preserve the medina's cultural heritage, while simultaneously integrating the historical district with the social and economic development occurring in other parts of the city. To this end the policy comprises three main actions: (i) creating and upgrading cultural facilities (e.g., restoration of the municipal theatre; creation of the new Mediterranean Centre for Applied Arts) in the medina and new town; (ii) promoting local awareness and appreciation of the built environment through educational events (e.g. a guided tour of the medina's Adalusian heritage); and (iii) supporting urban regeneration projects through local art and design training programmes (namely the cross-border cultural

Terrace with colorful mosaics in Tunis, Tunisia © Shutterstock

dialogue MEDNETA Project, sponsored by the European Community).[83]

Tunis' cultural policy has achieved significant impacts since its implementation. Primarily the city has been able to preserve and restore much of its cultural heritage, without forcing residents out of the centre and sacrificing the character of contemporary life. Residents have furthermore become better educated about the city's culture and history, with local artists emerging with the new training and opportunities to help preserve, restore and build upon the city's unique cultural heritage. Overall, Tunis' cultural policy provides an interesting model for how culture can be both preserved and enhanced in a rapidly developing city.

Target 11.5
By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.

Indicator 11.5.1: Number of deaths, missing persons and directly affected persons attributed to disaster per 100,000 population.

Quick facts

- The global average mortality attributed to disasters per 100,000 population was 0.86 persons between 2012 and 2021 (excluding COVID-19 related cases), a decline (47%) from 1.64 persons in 2005 – 2015.

- The global average of disaster affected people per 100,000 population was 2,113 persons between 2012 and 2021 (excluding COVID-19 related cases), an increase (76%) from 1,198 persons in 2005 - 2015.

Progress synopsis

The first two global targets of the Sendai Framework for Disaster Risk Reduction aim to substantially reduce global disaster mortality and the number of affected people by 2030. These are key targets that were adopted by the Member States, as Sendai Framework Target A and B were integrated into the Sustainable Development Goal and Indicator 11.5.1.

The year 2022-23 marks a midpoint for the Sendai Framework, which was adopted in the same year as the 2030 Agenda for Sustainable Development and the Paris Agreement.

The midterm review highlights that while good progress has been made in reducing disaster-related mortality, more needs to be done for reducing the number of disaster-affected people. The number of persons per 100,000 population who were dead or missing as a result of disasters (excluding COVID-19 related cases) has steadily decreased globally, from 1.64 persons during the period of 2005 - 2015 to 0.86 persons during 2012 - 2021. In absolute terms, from 2015 to 2021, the annual average disaster mortality stood at 47,337 persons.

The uphill challenges of reining in the disasters' tragic impacts are still strong, and empirical evidence suggests that in order for the global target for the SDG 11.5.1 to be achieved, acceleration in action, capacity development, international support and fundings, and the establishment of early warning systems are needed.

On the other hand, the number of persons affected by disasters per 100,000 population increased from 1,198 persons during 2005 - 2015 to 2,113 persons during 2012 - 2021 (excluding COVID-19 related cases). On an average, 151 million people were affected by disasters each year globally over 2015-2021.

In response to this, a truly coherent effort must be put in place, including institutional architectures, legislative mandates, strategic partnerships and sustainable financial mechanisms at both national and subnational levels. This should be in line with the recent findings of the Intergovernmental Panel on

Climate Change (IPCC), promoting well-maintained and comprehensive multi-hazard early warning systems (MHEWS), and strengthening DRR strategies and national adaptation plans aligned with a comprehensive risk management approach.

Global trends and conditions

Disasters have brought major disruptions to national, regional and international markets, with far-reaching impacts on the socioeconomic well-being of populations. However, disasters in Least Developed Countries (LDCs) and Small Island Developing States (SIDS) have far-reaching and cascading impact across the country, challenging steady recovery. Such countries in special situations, have emerged high on disaster vulnerability, while facing severe human and economic constraints.

From 2012 to 2021, compared to the global average of 0.86 deaths or missing persons per 100,000 population, LDCs, and SIDS reported average mortality of 1.24, and 2.80 respectively. Not only were the absolute mortality figures high, these countries also bore a disproportional blunt impact of disasters compared to their size and

populations. Disaster-related mortality in LDCs consisted of 18.5 per cent of global reported mortality, although they account for only 11.8 per cent of reported population. Similarly, SIDS reported 1.3 per cent of global mortality while accounting for only 0.3 per cent of the global reported population.

Notwithstanding the unprecedented biological catastrophe of the COVID-19, the decrease in relative disaster mortality deserves recognition. A key adaptation and risk reducing measure to contain disaster mortality is early warning systems. In response to the UN Secretary-General's call for ensuring that every person on Earth is protected by early warning systems by 2027,[84] UNDRR and WMO released a global status report on early warning systems in 2022,[85] based on the country reporting in the Sendai Framework Monitor and other sources including from WMO. This has shown an increase in the number of countries having multi-hazard EWS from 47 in 2015 to 95 in 2021. The analysis in the report shows evidence suggesting that countries reporting good coverage of MHEWS have lower mortality rates compared to countries that have little or no early warning systems.

Food in Dhaka city, Bangladesh © Shutterstock

Indicator 11.5.2: Direct economic loss attributed to disasters in relation to global gross domestic product (GDP)

Quick facts

- In 2021 a total of $80 billion were reported in economic losses due to disasters, which amounted to 0.57% of GDP of the reporting countries.

Progress synopsis

Despite years of efforts and progress, direct economic loss attributed to disasters remained stubbornly high. In 2021, disasters have caused $80 billion in direct economic loss globally, which amounted to 0.57 per cent of the total GDP of all reporting countries'.

The burden of the disaster loss was not carried equally by all countries, and its impacts were most felt, once again, in countries in special situations. In 2021, LDCs reported direct economic losses of $4.5 billion due to disasters, which amounted to 2 per cent of GDP of all reporting LDCs. SIDS reported direct economic losses of $133 million due to disasters in 2021, amounting to 2.4 per cent of their GDP. This was a significant amount of loss, bringing harsh economic consequences, and demonstrated the disproportionate negative impacts of disasters exerted in the countries in special situations.

Rescue teams searching for survivors at the site of the earthquake in Antakya, Turkey © Shutterstock

Indicator 11.5.3: (a) Damage to critical infrastructure and (b) number of disruptions to basic services, attributed to disasters

Quick facts

- More than one million critical infrastructure units in total, including schools and hospitals, were damaged or destroyed due to disasters from 2015 to 2021.

- During the same period, more than 6.5 million basic services were reported to be disrupted which were attributed to disasters.

Progress synopsis

More than half of the one million infrastructure units destroyed or damaged attributed to disasters, were educational facilities. In LDCs, more than 300,000 critical infrastructure units destroyed or damaged were reported. SIDS also reported 3,600 critical infrastructure units destroyed or damaged. Although this value may seem low, the relative population size of the SIDS is also much smaller, and the vast majority (97%) of the reported destroyed or damaged infrastructures in SIDS were health and educational units, exacerbating vulnerability to some already heavily burdened national networks.

Beyond infrastructure damages, basic service disruptions attributed to disasters were also sustained at a high intensity. Globally 6.5 million health, educational and other types of basic services were reported to be disrupted attributed to disasters from 2015 to 2021. National and international stakeholders need to strengthen their efforts in fostering a more resilient national infrastructure network, and in reducing basic service disruptions, since they are especially critical in ensuring social and economic recovery in the post-disaster planning and rebuilding phases in both urban and rural settings.

> **Target 11.6**
> **By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management**

Indicator 11.6.1: Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities.

Global Status: Moderate distance from indicator

Quick facts

- Four regions are at a moderate distance from indicator 11.6.1 (Western Asia and Northern America, Latin America and Caribbean, Eastern and South-Eastern Asia, Oceania).

- Two regions are close to the target or the target has been met or close to being met (Australia and New Zealand, Northern America and Europe).

- Central Asia and Southern Asia and Sub-Saharan Africa are very far from the target.

- The world generated 2.3 billion tonnes of municipal solid waste (MSW) in 2020, of which almost 40 per cent is managed in uncontrolled facilities,[86] predominantly open dumpsites.

- Municipalities in Sub-Saharan Africa and Oceania continue to struggle in increasing the amounts of municipal solid waste collection rates, with the average collection rate remaining below 60 per cent.

- In Asia, as well as Latin America and the Caribbean, cities are performing better in MSW collection and transport to transfer stations, recovery facilities or disposal facilities, with recorded collection rates ranging from 70−85 per cent.

Progress Synopsis

Efficient and effective waste management in cities is a prerequisite for sustainable development. Poorly managed waste, whether left uncollected or not managed in controlled facilities, negatively impacts the urban environment and human health. Uncollected waste often caused flooding by blocking water drains and encourages disease vectors to breed, resulting in the spread of infectious diseases. Uncontrolled burning of waste releases particulate and persistent organic air pollutants that causes respiratory diseases, while uncontrolled waste disposal in open dumpsites severely pollutes air, water and soil and adversely affects nearby environmental health. Improper or lack of municipal solid waste management causes large-scale plastic pollution and greenhouse-gas emission such as methane. As of now, solid waste in cities is projected to increase both in quantities and types. Given the risks of solid waste mismanagement and the potential benefits of sustainable waste management, urgent policy actions and infrastructure investments are needed to tackle this global challenge.

Cities can play an important part in the transition towards a low-carbon circular economy. However, for a circular economy to work, functional waste management systems must be in place to provide access to waste collection service to all, facilitate the recycling of materials and adequately dispose of the residual amounts of non-recyclable waste. These systems also improve public health, generate local green jobs and reduce the adverse environmental impact of cities caused by mismanaged waste. Indicator 11.6.1 therefore monitors municipal waste management performance in cities globally.

Figure 13: Current status in target 11.6 based on municipal solid waste management subcomponent

● Target met or almost met   ● Close to target   ● Moderate distance to target   ● Far from target   ● Very far from target
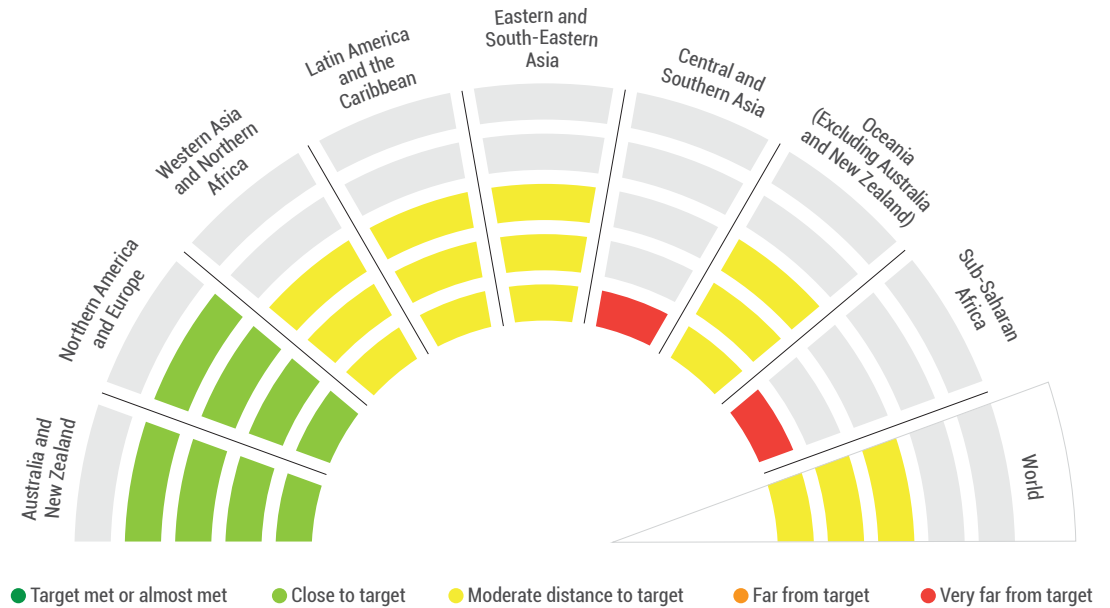
Measuring this indicator provides critical information and parameters to establish better waste and resource management strategies that will help cities to create business, employment and livelihood opportunities, and transition towards a green and circular economy.

Global trends and conditions

2.3 billion tonnes of municipal solid waste generated globally, of which 84 per cent was collected and 61 per cent was managed in controlled facilities

Since its launch in 2021, the Waste Wise Cities Tool (WaCT), a monitoring methodology of SDG indicator 11.6.1 developed by UN-Habitat, has been applied in more than 50 cities across the Global South of which validated data is available for about 40 cities. The collected data was used to quantify municipal solid waste management flows at a municipal level through the spatio-temporal quantification of plastic pollution origins and transportation (SPOT) model developed by University of Leeds.[87] The initial SPOT results in 2022 estimated about 2.4 billion

tonnes of municipal solid waste were generated in the world, of which by weight 82 per cent was collected and 55 per cent was managed in controlled facilities.[88,89] This estimate has been updated with additional WaCT city data and methodological improvements. Modifications were made to the SPOT model to allow the machine learning predictions of controlled disposal to better reflect the binary nature of the underlying data (e.g. the majority of cities have either 0 per cent or 100 per cent controlled disposal). These methodological changes resulted in increased predictive capabilities, particularly in regions where the transition from uncontrolled to controlled is prominent (e.g. Latin America and the Caribbean).

The new estimate of the SPOT model, which came out in 2023, shows that cities generated 2.3 billion tonnes of municipal solid waste in 2020, of which 84 per cent was collected and 61 per cent managed in controlled facilities, still indicating the urgency to improve municipal solid waste management in cities, especially in low- and middle- income countries. This means almost 900 million tonnes of municipal solid

waste remain uncollected or are managed in uncontrolled facilities, such as open dumpsites, therefore negatively impacting the environment. Plastic waste makes up 12 per cent of global municipal solid waste generation, amounting 276 million tonnes of plastic waste per year, making up to 78 per cent of 353 million tonnes of total plastic waste generated. [90] This number indicates how critical and relevant the municipal solid waste improvement and efforts towards achieving this specific indicator are to the ongoing negotiation towards a global instrument to end plastic pollution.

Increasing waste generation and mismanagement in cities threatens achievement of target 11.6

The SPOT estimated 2.3 billion tonnes of municipal solid waste generated globally, with increasing urbanization and population. Throughout much of the Global South, this waste generation is coupled with persistent failings around collection and safe management of waste. For example, SPOT estimated only 84

per cent by weight of global MSW was collected, while some regions had considerably lower rates (e.g. Sub-Saharan Africa and Oceania). The remaining uncollected waste, the single biggest source of plastic pollution, is self-managed by residents, with no other option than to either openly burn their waste or dump it into the environment such as local waterways.

Even when waste collection services are available, poor control levels in waste management facilities often mean this waste is mismanaged, such as being placed back into the environment in the form of open dumpsites and leading to further emissions. SPOT estimated that globally, only 61 per centof MSW by weight was managed in controlled facilities, highlighting that many cities are still struggling to manage MSW in an environmentally sound way. Rates are particularly poor throughout the Global South, however, collection rates for cities in much of Asia and Latin America and the Caribbean region are improving, yet are finding it difficult to provide a basic level of environmental control of facilities.

Figure 14. Global collection coverage and waste management status in controlled facilities

Region	Collection coverage	Managed in controlled facilities
Sub-Saharan Africa	49%	15%
Oceania	57%	29%
Central and Southern Asia	76%	17%
Latin America and the Caribbean	84%	74%
Western Asia and Northern Africa	86%	45%
Eastern and South-Eastern Asia	89%	56%
Northern America and Europe	98%	88%
Australia and New Zealand	100%	100%
World	84%	61%
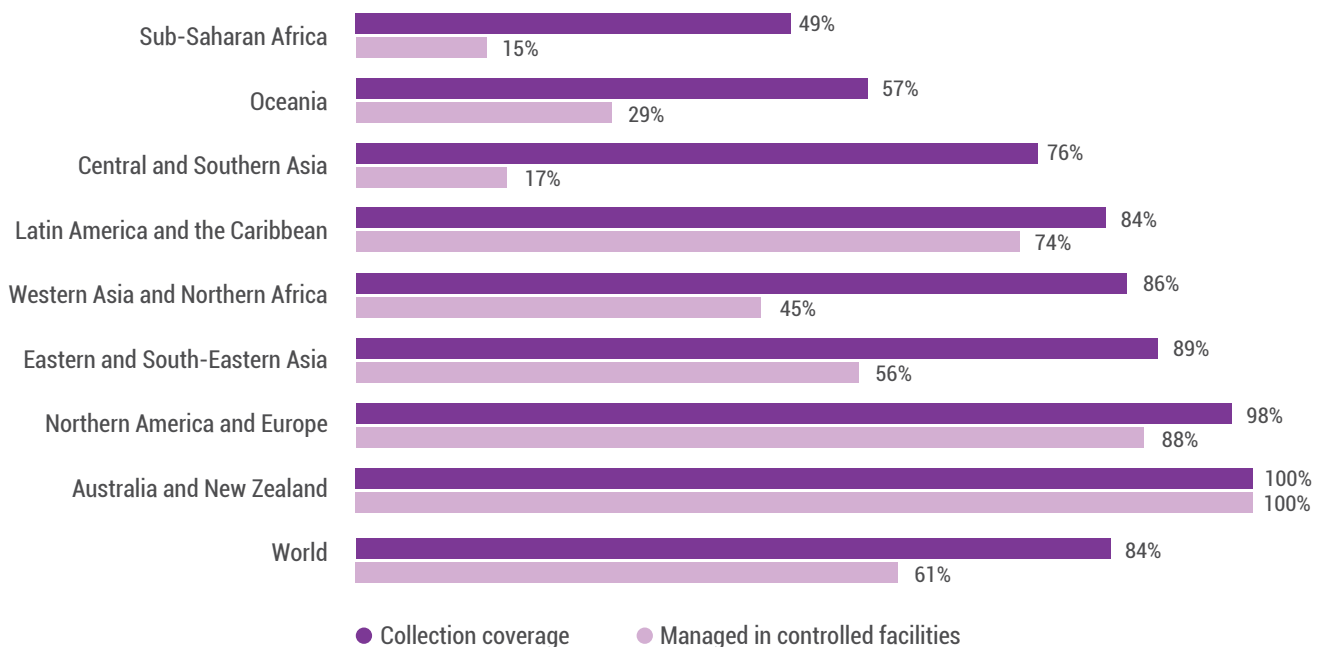
A significant amount of investment is needed in the waste management infrastructure development and maintenance, especially in low-to-middle income countries, together with policy interventions and strengthened environmental law enforcement for controlled management of MSW to improve. These interventions should also go hand in hand with Extended Producer Responsibility systems to support countries and cities in the transition to a circular economy.

The urban poor are most impacted by mismanaged waste, increasing global inequalities

Findings from a pilot household-based survey conducted by UN-Habitat to measure the proportion of population with access to basic waste collection services in 2021 in Nairobi, Kenya and Kampala, Uganda, revealed an enormous service coverage gap between non-slum and slum populations. According to the survey, which was based on the waste collection service ladder developed and defined in the WaCT, more than 90 per cent of the population in slums do not have access to a basic waste collection service, compared to

an average of 70 per cent of the population in non-slum areas who have access to such a service. This indicates that pollution from uncollected waste largely occurs in the most impoverished urban areas, where governments and formal service providers struggle to offer basic waste collection.

Informal waste and recovery sector actors fill the gaps where municipal solid waste management capacity is limited, sometimes providing the only form of solid waste collection and recovery service. Conservative estimates suggest that informal waste and recovery service sector consists of 15 million people. If accurate, this figure indicates a significant workforce across countries, recovering up to 58 per cent of the recycled waste globally. According to data collected with the WaCT, the informal share of municipal solid waste recovery chains is higher than 8 per cent in many cities, such as Nairobi and Mombasa in Kenya, Kep and Sihanoukville in Cambodia, and Khulna in Bangladesh. Though their contribution to public health, cleaning communities, resource efficiency and circular economy is clear, these waste collectors often face the brunt impacts of pollution firsthand from

Figure 15: Results from a household survey on access to basic waste collection service in Nairobi, Kenya, and Kampala, Uganda, 2021.
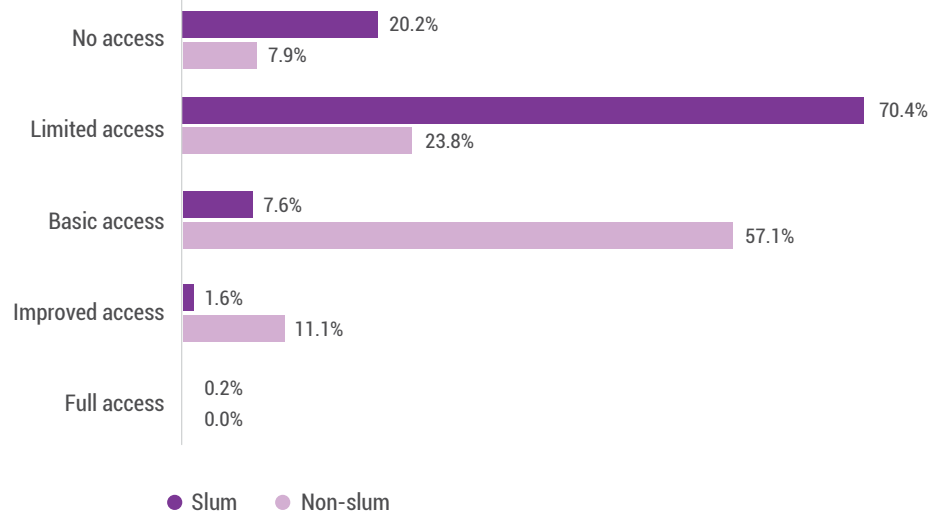
Source: UN-Habitat household survey on access to basic waste collection service in Nairobi, Kenya, and Kampala, Uganda, 2021.

unhealthy working conditions to exposure to severe and hazardous materials.

As cities develop integrated waste management systems, they must address the needs and safety of the informal waste and recovery sector by ensuring decent job conditions. One method to achieve this goal is the establishment of inclusive extended producer responsibility systems, which charge producers the external cost of pollution caused by mismanaged waste. In other words, generate a financial flow from producers of polluting products (e.g. plastics) to community-based organizations, youth groups, women's groups, cooperatives and associations of waste pickers. This policy should be considered as an essential building block of sustainable municipal solid waste management system in many parts of the world, especially where poor performance of SDG indicator 11.6.1 is noted.

Bottlenecks to progress

SDG Target 11.6 aims to reduce the adverse per capita environmental impact of cities, focusing on air quality and waste management. Five of the biggest bottlenecks to achieving this target are listed below.

1. *Inadequate Waste Management Systems:* Many cities face challenges in implementing comprehensive waste management systems. Insufficient infrastructure, limited recycling facilities, and improper waste disposal practices contribute to environmental pollution and adverse impacts on air quality, water bodies, and ecosystems.

2. *Air Pollution and Poor Air Quality:* Urban areas often experience high levels of air pollution due to industrial activities, vehicular emissions and other sources. Inadequate regulatory measures, weak enforcement and limited access to clean energy alternatives hinder efforts to improve air quality and reduce the adverse per capita environmental impact of cities.

3. *Rapid Urbanization and Inefficient Land Use:* Rapid urbanization and improper land use planning contribute to increased environmental pressures. Unplanned expansion, inadequate green spaces and fragmented urban development lead to higher energy consumption, increased waste generation and compromised ecosystems, all of which undermine efforts to reduce environmental impact.

4. *Limited Public Awareness and Behavioral Change:* Limited public awareness and engagement hinder efforts to achieve sustainable urban development. Insufficient education and outreach programs on environmental conservation, waste reduction, and sustainable lifestyles result in a lack of behavioural change, further exacerbating the adverse per capita environmental impact of cities.

5. *Financial and Institutional Constraints:* Achieving sustainable urban development requires significant financial resources and robust institutional frameworks. However, many cities face constraints in terms of budgetary limitations, inadequate investment in sustainable infrastructure and insufficient coordination among relevant authorities, all of which impede progress towards SDG target 11.6.

6. Lack of recognition of the informal sector and their practices.

Intervention highlights

Bottles for buses: Surabaya's innovative approach to waste management

In 2009, the city of Surabaya, Indonesia, launched a campaign to address the negative environmental and health impacts of its excessive solid waste. The campaign, known as 3R, has focused on promoting the reduction, reuse and recycling of the city's waste through

various community-oriented initiatives.[91] One of the most innovative of these initiatives has been deployed in the informal settlement of Kampung, where residents are now able to use plastic bottles as payment for local buses, helping to both reduce plastic waste and encourage the use of public transportation. Other more conventional initiatives have included the improvement of recycling facilities and the introduction of new composting systems that use black-fly larvae to transform organic waste into productive material.

The impacts of the 3R campaign have already been substantial. Waste has decreased by 10 percent each year since the initiative's start, despite continued growth in the city's population.[92] Quality of life has also benefited, with citizens reporting both cleaner and healthier lifestyles amidst documented increases in the Air Quality Index during the 2010's.[93] The 3R initiative thus offers cities across the region and globe with a relatively low-cost model for improving waste management, as well as the environmental and human health of an entire community.

Plastic playgrounds: engaging Uganda's children in ecological art projects

In 2010, Bruno Ruganzu, an eco-artist from Kampala, Uganda, started *Ecoart Uganda* to help promote environmental awareness through art in local communities.[94] The group uses various forms of trash to build recycled playgrounds and other artistic spaces for children in vulnerable communities, including Acholi (an informal settlement in Kampala's suburbs, home to many former refugees from the country's civil war in the 1990's). Projects furthermore engage children in both the design and construction of spaces, helping to promote both ecological activism and artistic expression within these communities.

Over the past decade, Ecoart Uganda has had substantial social and environmental impacts on local communities, helping to reduce waste and promote creative recreation in the most vulnerable communities. The organization has since been invited to other countries, including the USA, where it helped develop two upcycled playgrounds for children in Brightwalk, North Carolina.[95] The organization thus offers a model for how small groups and individuals can use art to impact social and environmental change, not only in their own communities, but across the globe.

Implementing the Waste Wise Cities Tool in Mombasa County, Kenya

To help improve its waste management system, in 2019 the county of Mombasa, Kenya, partnered with UN-Habitat to implement interventions outlined in the agency's Waste Wise Cities Tool (WaCT).[96] The team began by surveying more than 100 households and waste collectors across the county. From the survey, they found that 95 per cent of city's 700 daily tonnes of waste was being left unmanaged by controlled facilities, resulting in significant harm to the county's health, environment and economy.

In response, the county worked with stakeholders (e.g. recycling companies, residential associations and informal waste collectors) to develop a new waste management process and strategy. At the core of this new strategy were (i) increased investments in material recovery (e.g. recycling) facilities; (ii) formalization and improved support (e.g. licenses, tools, training) for informal waste collectors; and (iii) the establishment of a new multi-stakeholder forum to promote dialogue of ongoing issues and solutions for local waste management.

Overall the WaCT has helped Mombasa both diagnose and begin to address some of its key waste management problems. This partnership has been replicated in other cities, such as Cagayan de Oro in the Philippines, which has used the WaCT to develop its own city action plan for marine litter. Municipalities across the globe may be able to learn from both of these experiences and ultimately leverage the WaCT for their own waste management improvements.

Developing a circular waste processing system in eThekwini

In the late 2000's, the eThekwini Metropolitan Municipality in South Africa wanted to improve sanitation services for the municipality's rural residents. To this end they installed more than 80,000 urine-diversion toilets (UDTs) across the municipality.[97] However, shortly after installing the UDTs, the municipality determined that these residents were at risk of contracting dangerous pathogens during disposal of the toilet fecal matter.

To help protect residents from these health risks, the municipality began developing a new system for disposing, transporting and recycling UDT waste. To this end it chose to construct a circular system wherein waste could be collected by professionals and subsequently repurposed into productive material. Through partnerships with researchers at the University of KwaZulu-Natal and the Pollution Research Group, and support from the Bill & Melinda Gates Foundation, the municipality was able to design and construct a processing plant that uses black-soldier-fly larvae to transform fecal waste into productive material – the first time that this method has ever been applied to sanitary waste.

The results from this initiative have been substantial. As of 2018, the plan is processing 1.5 tonnes of UDT waste each day, saving an estimated $46 (USD) per toilet compared with disposal at a waste site (the previous method). More than 40,000 UDTs have furthermore been emptied by local small businesses in compliance with new regulations, helping to protect the human and environmental health of the community. The success of this project thus exemplifies how smart strategic partnerships can lead to large and even revolutionary change for both a community and the world.

Low-cost composing toilets in São Paulo

In 2015, the city of São Paulo, Brazil, introduced a new, low-cost composting technology within the city.[98] Five facilities were opened to process

The Swikoxeni Waste Recycling Project is responsible for cleaning up villages near the Kruger National Park, Skukuza, Mpumalanga South Africa © Shutterstock

organic waste within the city and provide an alternative to sending the waste to distant landfills. To implement the new system, teams were sent to local street markets to educate vendors on how to separate organic waste into specialized composting bags. Collection teams have subsequently collected this and other municipal organic waste (e.g., tree prunings), transforming 100 tonnes of waste each day into productive fertilizer.

This has resulted in numerous benefits for the city. More than 20,000 tonnes have been transformed into fertilizer since the project's launch, benefiting the city's parks, schools and other green spaces. Decreases in waste-transportation distances have furthermore helped reduce both the city's air pollution and greenhouse gas emissions by 87 percent. Overall the project exemplifies how a combination of education campaigns and simple technologies can help overhaul a system for the betterment of both the community and broader global environment.

Indicator 11.6.2: Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)

Global Status: Inadequate data to determine

Quick facts

- In 2019, ambient air pollution from traffic, industry, power generation, waste burning and residential fuel combustion resulted in 4.2 million deaths and the loss of millions more healthy years of life.

- Since 2010, while air quality has been marginally improving, this is largely due to improvements in high-income countries.

- 99 per cent of the world's urban population live in areas that exceed the new WHO guidelines on air quality, established in 2021, with significant variations noted across regions. A decadal decline in air pollution is observed in populous countries.

- Air pollution is not only an urban problem. Air pollution in towns, the geographical area between cities and rural areas that is also referred to as suburban or peri-urban areas, is worse than the air quality observed in cities.

Progress Synopsis

Both the SDGs and the New Urban Agenda recognize the urgent need to foster healthy societies and clean environments by taking into consideration air quality guidelines, including those elaborated by the World Health Organization (WHO).

Measuring indicator 11.6.2 underscores the urgency of improving air quality in cities. Air pollution poses a significant threat to human

Figure 16: Current status in target 11.6 based on air quality sub-component

Legend:
- ● Target met or almost met
- ● Close to target
- ● Moderate distance to target
- ● Far from target
- ● Very far from target

- ⊙ Substantial progress/on track
- ⊙ Fair progress but acceleration needed
- ⊙ Limited or no progress
- ⊙ Deterioration
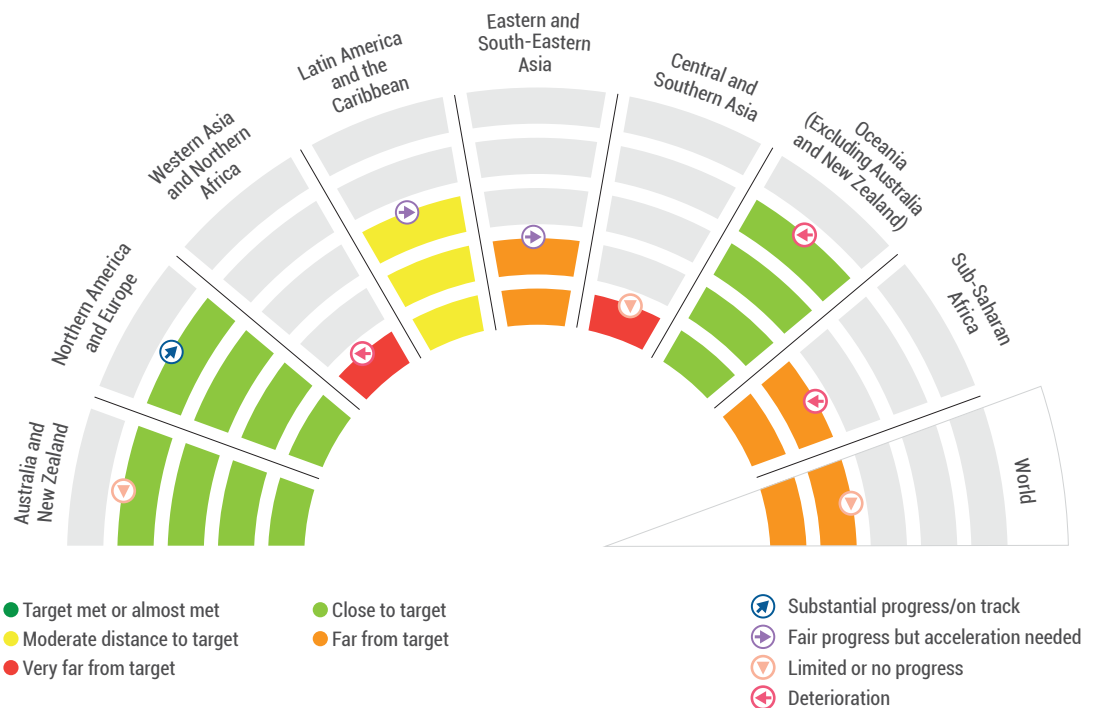
*Trend based on analysis of data between 2010 - 2019

Box 14: PM sources and health effects

Sources of PM10 will mainly consist of sea salt, pollen, smoke from fires, construction sites,   and wind-blown dust from agricultural sources, roadways, construction site and mining operations. PM2.5 can be derived from primary sources (e.g., combustion of fuels) and secondary sources (e.g., chemical reactions between gases emitted from vehicle exhaust or agricultural emissions). It is important to recognize that sources of particulate matter can also originate from the households (which can be considered as both indoor and outdoor pollution) due to : cooking, heating and lighting with polluting fuels and technologies such as biomass (e.g., wood, charcoal, crop residue). PM is relatively stable, and can remain suspended in the air and can travel very long distances.

As PM characteristics can be very different, the health effects may also vary depending on the nature of the PM. For example, anthropogenic sources of PM, from industrial activities, may have a different health impact than exposure to desert dust in desertic areas. According to the WHO AQG, long-term exposure to PM10 is moderately associated with increased risk of death from ischemic heart disease (IHD) and chronic obstructive pulmonary disease (COPD), whereas for PM2.5 there are strong association with lung cancer, IHD, cerebrovascular disease and COPD, and moderate associations with respiratory diseases.

health worldwide. As such it is one of the greatest environmental risks to human health today.

As part of the World Health Assembly (WHA/68) resolution on "Health and the environment: addressing the health impact of air pollution" adopted in 2015, the WHO, through its Department of Environment, Climate Change and Health, aims to address the urgent public health need to respond to the effects associated with air pollution. In addition, WHO has the responsibility for stewarding indicator 11.6.2. Data is currently reported every two to three years, in the form of modelled estimates of population-weighted particulate matter (PM2.5), based on input data from ground measurements and satellite data.

Global Trends and Conditions

99 percent of the world's urban population live in areas that exceed the updated WHO guidelines on air quality

Particulate matter (PM) is an air pollutant that is a good proxy indicator for air pollution in general. PM in urban and non-urban areas contains a complex mixture of components having diverse chemical and physical characteristics. Particulate matter is usually classified according to its diameter. PM10 are particles that have a diameter less than about 10 microns (μm), while PM2.5 represents particles with a diameter less than about 2.5 microns.

An alarming 99 percent of the world's population live in areas that exceed the 2021WHO guidelines on air quality, for PM2.5 of 5 micrograms per cubic meter (reduced from the 10 microgram per cubic meter limit set in 2005) which can have dire health impacts (Box 14).

Ambient air pollution claims 4.2 million death every year

In 2019, ambient air pollution from traffic, industry, power generation, waste burning and residential fuel combustion resulted in 4.2 million deaths and the loss of millions more healthy years of life.[99] This colossal burden of

People pass through the rising pollution on the Delhi-Jaipur Expressway. Gurgaon, Haryana, India.
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Figure 17: Three-year averages of PM2.5 levels from 2011 to 2019 for the world and SDG regional groupings. These estimates are population weighted values for the urban area.
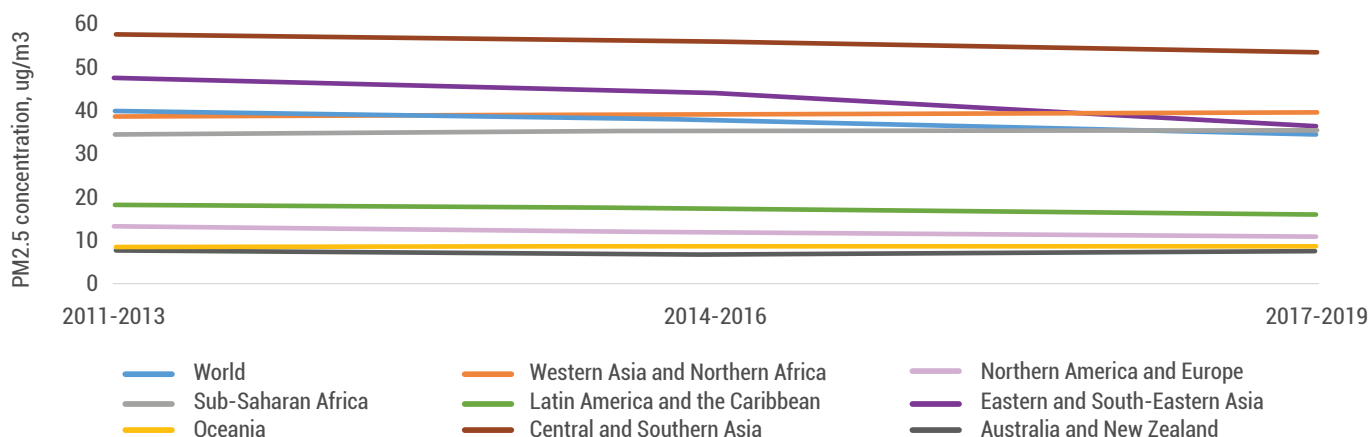
disease is recognized by many governments and organizations as a major public health concern. Exposure to fine particulate matter of 2.5 microns or less ($PM_{2.5}$) in diameter, as well as other pollutants, put people at increased risk of stroke, heart disease, chronic obstructive pulmonary disease, lung cancer and lower respiratory infections. People with pre-existing chronic diseases have a higher risk of severe illness and death from COVID-19. Current scientific evidence also suggests that air pollution weakens the immune system against infectious diseases.

Global changes in air pollution vary from region to region

Since the commencement of the SDG framework in 2015, global air pollution levels of fine particulate matter ($PM_{2.5}$) have slowly and steadily decreased. The global fine particulate matter concentration across the decade showed around 10 per cent reduction with most of the air quality improvements being realized since 2014 (see Figure 17).[100]

While half of the SDG regions also recorded improved air quality (Northern America and Europe, Latin America and the Caribbean, Central Asia and Southern Asia, Eastern Asia and South-Eastern Asia regions), the other four regions showed increasing or constant air pollution (see figure 17).

Out of the four regions that recorded decreases in air pollution, Eastern Asia and South-Eastern Asia showed the greatest progress with approximately 24 per cent reduction from 2015 to 2019.

In contrast to the global decline in fine particulate matter, the decadal changes in small island developing states (SIDS), which a category comprises 40 member states of WHO, show a different trend. In this region countries' air quality levels are either constant or increasing. More disturbing is that in these countries monitoring of air pollution is already limited or non-existent. Of all the cities monitoring air quality, low- and middle-income countries make up only 42 per cent of the 117 countries reporting air pollution data with only 3 per cent of those countries being SIDS.

It is encouraging that landlocked developing countries (LLDCs) and least developed countries (LDCs) showed modest improvements in air quality (Figure 18). However, these regions still report air pollution levels that are almost three to four times higher than concentrations recorded in developed regions such as Northern America and Europe. More work is needed to improve air quality in these regions as people in low- and middle-income countries are disproportionately affected by outdoor air pollution, with 89 per cent of the 4.2 million premature deaths globally.[101]

Figure 18: Three-year average PM2.5 levels from 2011 to 2019 for world and developed and developing region groupings. These estimates are population weighted values for the urban area.
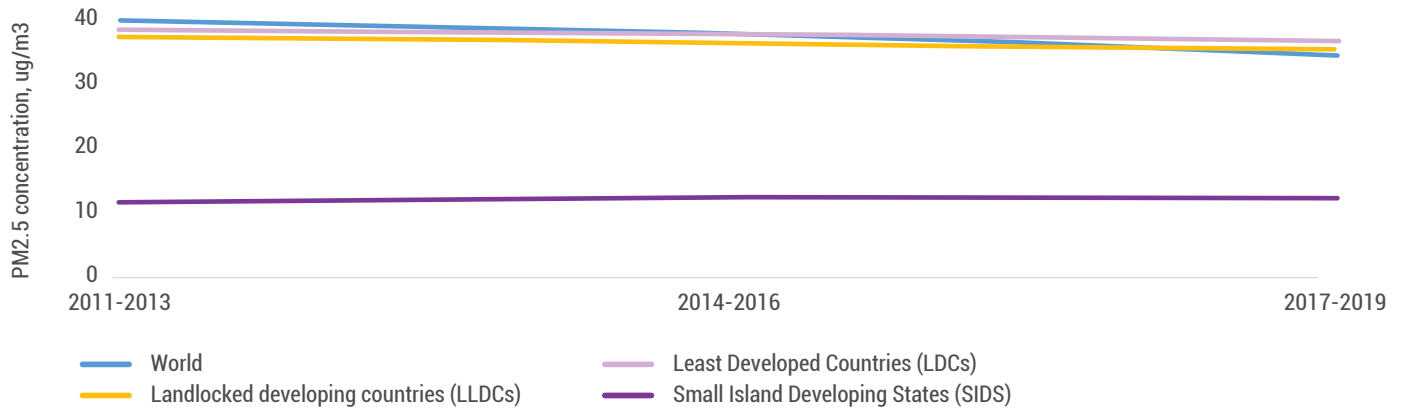
The majority of the most populated countries showed decreases. According to the United Nations Department of Economic and Social Affairs (UNDESA) in 2020, China showed a roughly 26 per cent decrease in air pollution, which is encouraging as the world's largest country is also expected to continue to grow in the coming years.

Air pollution is not only an urban problem

Cities have traditionally been the focus of air pollution reduction policies but a broader approach to human settlements should be implemented. The air quality in towns and rural areas should also be considered. As the definition of "urban area" continues to be

Fig 19. Three-year average PM2.5 levels from 2011 to 2019 for the top three densely populated countries. These estimates are population weighted values for the urban area.
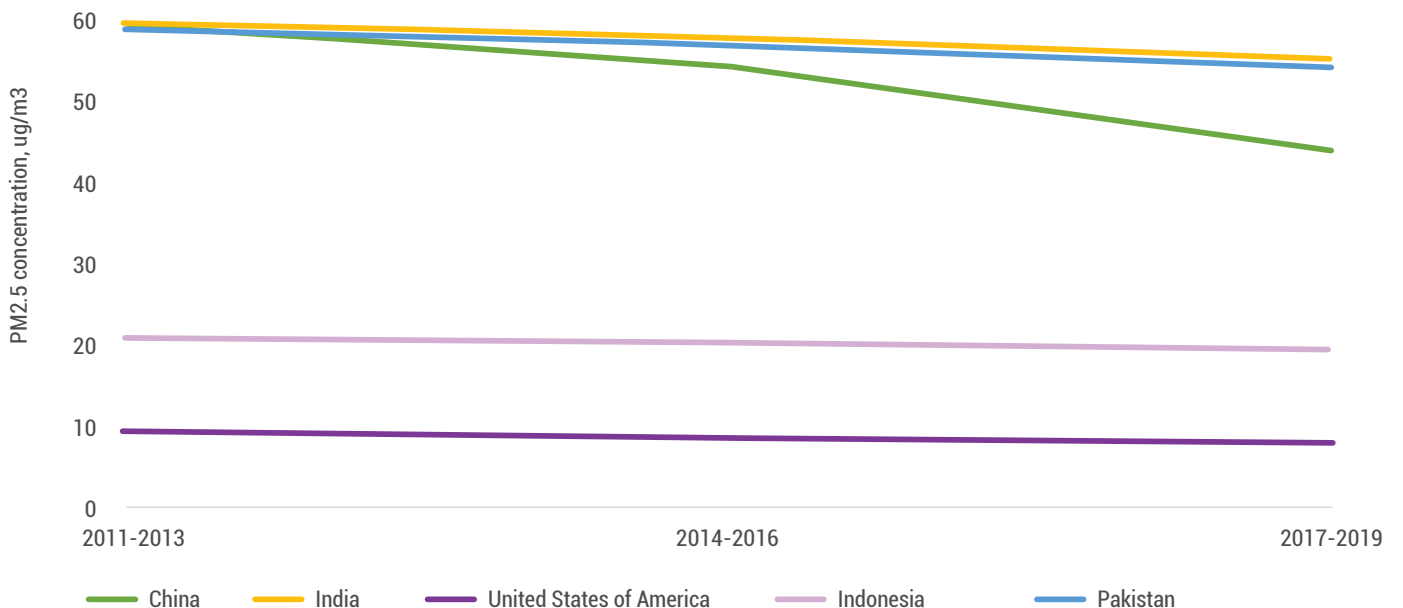
Figure 20: Population-weighted PM2.5 concentrations for 2019 for the world and UN SDG regional groupings in cities, towns and rural areas.

unclear in its geographical boundaries, in 2021, the United Nations Statistical Department introduced a new classification that recognizes the urban-rural continuum.[102] The new definition distinguishes different degrees of urbanization from cities or towns and semi-dense areas, recognizing important inherent differences between cities, rural and town/semi-dense areas. Such differences became more pronounced when looking at air pollution levels.

Across the globe in 2019, towns had higher air pollution levels than cities (Figure 20). Poorer air quality was also observed in the towns of the Eastern Asia and South-Eastern Asia region, which contains the greatest proportion of the world's population. This observation re-emphasizes the fact that tackling air pollution requires a shift in our perspective and recognition that air pollution is not only an urban problem but is a real challenge in less dense and rural settlements. While majority of SDG11 targets are focused on tracking progress in the urban areas, SDG11.6.2 also strives to monitor changes in towns and rural areas in addition to cities.

It is important to recognize that SDG11.6.2 concerns cities, but other human settlements and rural areas still represent almost 50% of the world

population. Environmental exposures in rural areas, namely air quality, is neither pristine nor spared from transboundary pollution. These areas are also sources of air pollution (e.g. episodes of air pollution in some cities are generated by farmers outside of the city burning their fields or wildland fires in conserved natural areas). Furthermore, rural areas are generally poorer and worse off when it comes to access to basic services (e.g. clean household energy and water sanitation) that can affect indoor air quality.

WHO air quality guidelines aim to save millions of lives from air pollution

At the same time, evidence of the adverse health effects of air pollution at lower levels than previously anticipated have been mounting. This is why in 2021, WHO updated its air quality guidelines with dramatically reduced limits for key pollutants such as PM2.5, with a recommended limit of 5 mg/m3 which is one-half of that established in 2005, and PM10, with a value of 15 mg/m3 which is three-quarter that of the 2005 limit and nitrogen dioxide (NO2), whose guideline level of 10 mg/m3 is one quarter that of the 2005 limit. Such guidelines reflect the high degree of scientific consensus but are not binding upon member states.

Table 11. WHO recommended air pollutant levels and interim targets (in mg/m3), mean annual average

Pollutant	Interim target				AQG (2021)	AQG (2005)
	1	2	3	4		
PM$_{2.5}$	35	25	15	10	5	10
PM$_{10}$	70	50	30	20	15	20
NO$_2$	40	30	20		10	40

Source: WHO air quality guidelines

Legislative action for regulating air pollution level still limited

Regulating air pollution and embedding air quality into legal instruments is therefore critical. A global snapshot of air quality legislation recently published by the United Nations Environment Programme (UNEP) noted that 64 per cent of countries are yet to embed air quality standards into legislation that sets acceptable levels of an air pollutant by law.[103] However, most of these national air quality standards are not aligned with the 2021 WHO air quality guideline values and tolerate higher air pollution levels. Finally, many countries not only lack ambient air quality standards legislation, but they also do not have regulations that require regular air quality monitoring.

Producing accurate estimates remains a challenge

Although PM$_{2.5}$ is measured at many thousands of locations throughout the world, the amount of monitors in different geographical areas vary, with some areas having little or no monitoring. In order to produce global estimates at high resolution (0.1° grid cells or approximately 11x11 km), additional data is required. Annual urban mean concentration of PM$_{2.5}$ is estimated with improved modelling by integrating data from remote sensing satellites, chemical transport models, population estimates, air pollution source contributions (e.g. dust), topography (e.g. land use and elevation) and ground measurements. Such comprehensive measurement is the purpose of the Data

Integration Model for Air Quality, which predicts PM$_{2.5}$ levels. This model allows for aggregation at local, regional and national levels, as well as along the urban-rural continuum.[104]

Ground measurements are taken from the WHO Ambient Air Quality Database.[105] Since 2011, this database has contained annual mean concentrations of traditional pollutants and particulate matters of a diameter of less than 10 mm (PM$_{10}$) or 2.5 mm (PM$_{2.5}$). In the 2022 update, ground measurements for a new pollutant, nitrogen dioxide (NO$_2$), in addition to the traditional pollutants, were collected for about 6,700 human settlements in 117 countries. As such, it is the largest compilation of ground measurements to date, yet such measurements are primarily concentrated in high-income countries. The overall country estimates derived from this model are directly reported as the SDG 11.6.2 indicator.

The air quality sensor lights up green. The indicator shows good air quality in the city
© Shutterstock

Target 11.7
By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.

Indicator 11.7.1: Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities

Global Status: Far from target

Quick facts

- Five regions are far from target (Western Asia and Northern Africa, Eastern and Southeastern Asia, Central and Southern Asia, Oceania, Sub-Saharan Africa)

- Two are at a moderate distance from target (Northern America and Europe; Latin America and the Caribbean).

- Only one region, Australia and New Zealand, met or almost met the target.

- have shown that they are immense assets in times of crisis and should thus be a vital component in cities' strategies in addressing present and future crises. The share of the global urban population with convenient access to open public spaces averages only 45.2 per cent, leaving the majority of urban residents and visitors without adequate opportunities to enjoy the benefits of such spaces.

Progress synopsis

Safe, inclusive and accessible, green and public spaces are an integral component for sustainable urban areas and the realization of the SDGs. The New Urban Agenda (NUA) considers public spaces as indispensable

elements for sustaining the productivity of cities, social cohesion and inclusion. Public spaces in turn promote social resilience, civic identity and quality of life as well as have linkages to climate issues. Article 67 of the NUA states: "We commit ourselves to promoting the creation and maintenance of well- connected and well-distributed networks of open, multipurpose, safe, inclusive, accessible, green and quality public spaces, to improving the resilience of cities to disasters and climate change, including floods, drought risks and heatwaves…" In addition to the pivotal role of public spaces in enhancing the social-cultural, economic and political functions of cities and towns, the direct economic role of public spaces is evident in many countries across the world, both developing and developed, where different livelihood support activities can be witnessed – from more organized setups to informal configurations. The charter on public space notes that "every public space should be designed with full consideration for diversity," which further reinforces the value of open public spaces with simple and actionable principles for the creation, management and enjoyment of public spaces in cities.

Today, public spaces are also providing cities and towns opportunities for adapting to multiple crises and threats confronting the world such as climate change and health crises. For example, the value of public spaces has been reinforced by the COVID-19 pandemic, one of whose key response strategies included making open public space more resilient through urban design, which brought out a range of adaptive outcomes. For example, golf courses in inner-city locations in Australia were made available to the community as open public spaces. Ethiopia reconfigured its

overcrowded markets spaces and Melbourne planned to reconfigure the layout of its central business district's "little streets" to create a more livable urban environment for walking, eating and outdoor activities.

People-centered, equitable, accessible and connected public spaces are critical for both physical and mental health and wellbeing in cities. They enhance proximity, accessibility and mobility and promote physical activity, social interactions and other active urban life activities whose benefits can include better quality of life and more functional urban systems. Quality and accessible public spaces mitigate environmental risks and enhance resilience in communities. Public spaces are key to the preservation, conservation and promoting culture and heritage in various contexts. As noted in the *World Cities Report 2022: Envisaging the Future of Cities*, public spaces play a vital role in making densification work.

Despite the important role that green and public spaces play in urban areas, they are often under threat. Land is a finite resource and with competing demands which often sees precious open spaces privatized (making them exclusive) or even converted to built-up developments. Without strong commitment from governments to preserve, protect and value these spaces, they remain a threat to being lost forever. SDG target 11.7 aims at promoting the provision and enhancing access to green and public spaces by all population groups, in a bid to ensure that all urban dwellers are accorded the opportunity to enjoy their associated benefits.

Global Trends and Conditions

The share of urban areas in open spaces remains marginal, curtailing progress towards target 11.7

Despite the important role of public spaces in urban areas, more than three-quarters of cities for which data on SDG indicator 11.7.1 is available have less than 20 per cent of their area dedicated to open public spaces and streets. On average, open public spaces account for a meagre 2.7 per cent of urban land, about 4.7 times less than the share of land in streets. These shares vary widely across regions, with

Figure 21: Current status in target 11.7 based on provision and access to open public spaces in cities subcomponent
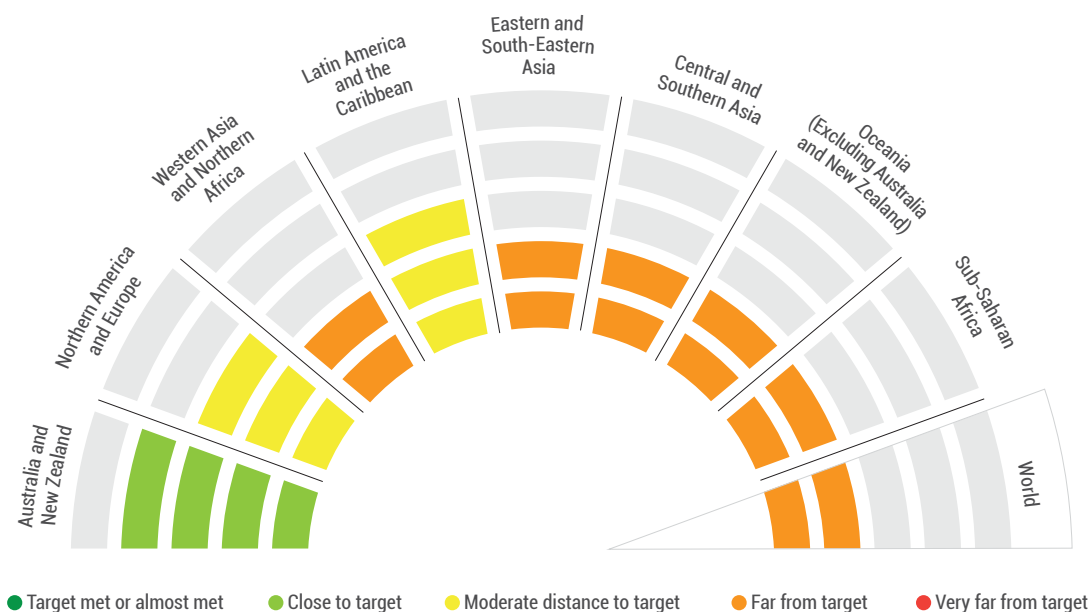
cities in the more developed regions having higher proportions of land in streets and open spaces than those from the developing regions.

The marginal provision of land in open public spaces, coupled with their often uneven distribution in cities, impacts on their accessibility by population, and thus their overall contribution to enhancing the quality of urban life for all urban dwellers. Disadvantaged groups in particular rely on public space for health, leisure and livelihoods, among other uses, making it essential to integrate public spaces throughout the urban fabric. Achieving this outcome and accelerating implementation of SDG 11.7 requires improved horizontal and vertical coordination among different levels of government and non-state actors. This coordination is key to protecting public spaces in the face of rapid and unplanned growth of cities, which poses a risk to privatization of open spaces especially those in the periphery of the "functional urban area.

Data from 1,072 cities from 120 countries in all world regions indicates that only about 45 per cent of the global urban population can access an open public space within 400 meters of walking distance along the street network, implying that most of the urban population lacks convenient access to these spaces. Like for most other indicators and trends, significant variations are noted across age groups, gender and regions, with Australia and New Zealand and North America and Europe and Latin America and the Caribbean being the only regions recording more than 50 per cent convenient access to open public spaces (Figure 22).

City level performances also vary both between and across regions. For example, more than 60 per cent of cities where data is available in Australia and New Zealand, Northern America and Europe and Latin America and the Caribbean have more than half of their population with access to open public spaces within 400 m or

Figure 22: Share of population with convenient access to public transport by regions

Region	% of population with convenient access to OPS	% urban area served by open public spaces
Global average	45.2	37.8
Western Asia and Northern Africa	46.4	36.9
Sub-Saharan Africa	31.1	27.0
Oceania excluding Australia and New Zealand	29.2	25.5
Northern America and Europe	57.8	50.7
Latin America and the Caribbean	56.5	47.9
Eastern and South-Eastern Asia	26.8	19.5
Central and Southern Asia	35.5	29.8
Australia and New Zealand	78.0	65.5

● % of population with convenient access to OPS   ● % urban area served by open public spaces

*Based on data from 1,072 cities constituting 28 in Australia and New Zealand, 228 in Central Asia and Southern Asia, 111 in Eastern Asia and South-Eastern Asia, 291 in Latin America and the Caribbean, 158 in Northern America and Europe, 12 in Oceania (excluding Australia and New Zealand), 103 in Sub-Saharan Africa, and 141 in Western Asia and Northern Africa.

Figure 23: Regional aggregates on proportion share of cities population with access to open public spaces within 400 m (five-minute) walk.

Western Asia and Northern Africa
Sub-Saharan Africa
Oceania excluding Australia and New Zealand
Northern America and Europe
Latin America and the Caribbean
Eastern and South-Eastern Asia
Central and Southern Asia
Australia and New Zealand

● Below 25%   ● 25 - 50%   ● 50 - 75%   ● Above 75%
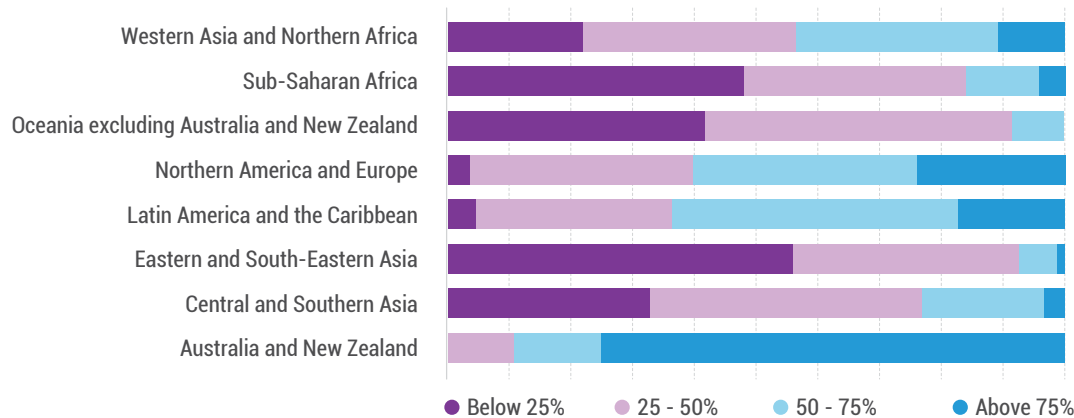
five minutes walking distance, while in Sub-Saharan Africa and Eastern Asia and South-Eastern Asia more than half of the reported cities have less than 25 per cent of their population living within five minutes walking distance to open public spaces (Figure 23).

These trends indicate that most of the world's urban populations do not fully enjoy the benefits associated with convenient access to open public spaces. Overall, the risks resulting from poor quality, unevenly distributed or the complete absence of public spaces places pressure on individual and communal welfare, along with the performance of local economies, land value and biodiversity. Such shortfalls can exacerbate existing inequalities to the detriment of vulnerable groups. While current data is not disaggregated by location, populations living in poor neighborhoods within cities are less likely to have access to these spaces.

Intervention highlights

Designing a new park for central Bangkok (climate resilience)

Located on a low-lying floodplain, Bangkok (Thailand) has long been vulnerable to flooding and water-related disasters.[106] In more recent

years, however, this vulnerability has been exacerbated by a combination of unfettered urban development and climate change. While climate change has caused sea levels to rise, excessive groundwater pumping and heavy urban structures have simultaneously caused the city to sink by an estimated 2 cm each year.

In response to this alarming change, in 2012 the city decided to take a different approach to urban development. For the first time in 30 years, instead of focusing on commercial development, the city chose to turn an 11-acre downtown plot into a public park and green space. This park, known as Chulalongkorn Centenary Park, aims to both reduce the risk of flood disaster and provide residents with a green recreation space. The park's key design feature is its three-degree sloped lawn, which allows it to collect up to 1 million gallons of water during floods. This water can then be treated and used for productive purposes during future droughts. Other key features include the park's green roof wetland, amphitheatre, open swales and retention ponds. Finally, to complement the park, the city has also promoted walking and cycling on the 1.3-km street perpendicular to the park, helping to both alleviate congestion and promote sustainable mobility in the neighbourhood.

Since its completion in 2017, the park has already yielded enormous benefits for the community. Flood resilience and water retention have been substantially improved, helping the city adapt to the adverse impacts of climate change. The green space has also reduced urban heat island effect and air pollutants, while enhancing biodiversity through 258 new species of plants, 5,000 new trees, and 30 new species of birds. Finally, the park and its surrounding areas have provided the community with a valuable outdoor recreation area, greatly promoting walking, running, and cycling (both around the park and on designated stationary bikes) in a rare green space within the city. Overall, the park offers a model for how municipalities can create public spaces that provide recreation, green space and climate resilience for the community.

Promoting walkability through Melbourne's Little Streets (economic development)

In 2020, the City of Melbourne, Australia, initiated the Little Streets transformations as part of its response to the COVID-19 pandemic. The project aimed to create more spaces for pedestrians, cyclists and outdoor diners along the city's smaller streets, as part of its efforts to promote safe downtown activity during the pandemic. This primarily involved reallocating spaces reserved for cars and parking into vibrant spaces for people and local businesses.

Like many cities during the pandemic, Melbourne found substantial success with its public space modification. Restaurants and other local businesses experienced increased activity, while residents reported higher likelihoods to walk, shop and recreate in the city's downtown areas. An added benefit appeared to be in safety, as smaller streets seem to have reduced traffic speeds and potentially accidents as well. The project exemplifies how the creation of public spaces, even when small and in response to unusual

circumstances, can have long-term benefits for a community's health, environment and local economy.

Rehabilitating a Beirut staircase: inclusive resilience in the face of tragedy (disaster recovery)

In 2020, the city of Beirut, Lebanon, experienced a deadly explosion. At least 218 people were killed, 7,000 injured and more than 300,000 were left homeless, as the explosion destroyed and damaged buildings and structures across the city.[107] Among the damaged structures were three historic public staircases – St. Nicolas, Vendome and Laziza – located in the city's Mar Mikhael and Gemmayzeh neighborhoods.

In the explosion's aftermath, UN-Habitat partnered with design firm Catalytic Action to support the city's restoration of these historic staircases.[108] This involved first engaging residents in a series of participatory processes outlined in the agency's Her City Toolbox, including a Minecraft planning workshop and stakeholder feedback meeting. The resulting design incorporated features (e.g. new slides and sitting areas; restored artwork) that aimed to both enhance social connection and inclusivity, while also preserving the history of the staircases. The Municipality of Beirut and Directorate General of Antiquities both approved the design, allowing the team to begin implementation, co-financed by the United Nations Industrial Development Organization.

The restoration has provided residents with an improved public space for both social and commercial activities, particularly benefiting over 1,000 women, children and older residents. The project thus provides an example for how cities can use participatory processes to build inclusive, culturally reinvigorated public spaces, even in the face of mass destruction and tragedy.

Indicator 11.7.2: Proportion of persons victim of non-sexual or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months

Quick facts

Progress synopsis

Like other forms of violence, monitoring the prevalence of non-sexual and sexual harassment cannot be done through administrative data. A minority of cases of non-sexual and sexual harassment will be reported to the police. Household surveys are therefore necessary to collect data for this indicator. This can be done as part of dedicated surveys on crime victimization, or part of an add-on module on non-sexual and sexual harassment to be incorporated in a general household survey.

While several countries, especially in the Americas, have implemented national victimization surveys, at the global level, there continues to be limited availability of survey-based data for measuring non-sexual and sexual harassment prevalence. The United Nations Office on Drugs and Crime (UNODC) therefore joined forces with the United Nations Development Program (UNDP) and the Office

of the United Nations High Commissioner for Human Rights (OHCHR) to develop the internationally standardized and tested SDG 16 Survey questionnaire and the accompanying Implementation Manual, which countries can use for collecting data on 11 survey-based indicators under Goal 16 as well as two survey-based indicators under Goal 11, including indicator 11.7.2 on non-sexual and sexual harassment.

The survey instrument is designed as a flexible tool that can be adapted to national needs: it can either be applied as a standalone population survey or, if necessary, countries can implement selected modules as part of other ongoing survey operations. Based on the *International Classification of Crime for Statistical Purposes (ICCS),* an operational definition of non-sexual and sexual harassment was developed[109] While sexual harassment refers to behavior with a sexual connotation that is suitable to intimidate the victims, non-sexual harassment refers to all other harassing behaviors that can cause fear for physical integrity and/or emotional distress. The SDG 16 survey questionnaire provides a core set of questions about specific behaviors that allow for the measurement of the prevalence of sexual and non-sexual harassment in the population (see Figures below).

In 2023, UNODC for the first time included indicator 11.7.2 in its SDG pre-publication data

Figure 24: Types of sexual harassment included in the SDG 16 survey questionnaire

A.	UNWANTED SEXUAL PROPOSITION or pressure for a date
B.	Unwanted MESSAGES, E-MAILS, CALLS OF A SEXUAL NATURE that offended you
C.	Embarrassing and SEXUALLY EXPLICIT MESSAGES about you and/or PHOTOS OR VIDEOS OF YOU POSTED ONLINE OR SENT TO ANYONE WITHOUT YOUR CONSENT
D.	UNWANTED SEXUAL COMMENTS ABOUT YOUR PHYSICAL APPEARANCE OR BODY
E.	UNWANTED SEXUAL GESTURES, WHISTLING AND LEERING OR ANYONE GOT INAPPROPRIATELY CLOSE TO YOU
G.	Somebody INDECENTLY EXPOSED THEMSELVES TO YOU
H.	Receiving UNWANTED GIFTS of a sexual nature such as toys, accessories or underwear

Source: SDG 16 Survey questionnaire. Note: In relation to item E. "inappropriately close" means that the perpetrator is at a distance where he/she can touch the victim, but where physical contact does not take place.

Figure 25: Types of non-sexual harassment included in the SDG 16 survey questionnaire

A.	Received non-sexual threatening or offensive MESSAGES, E-MAILS OR CALLS
B.	Somebody personally made OFFENSIVE, THREATENING OR HUMILIATING COMMENTS to you, such as insulting you or calling you names
C.	Somebody made OFFENSIVE OR THREATENING GESTURES to demean, insult or humiliate you
D.	Somebody posted OFFENSIVE, demeaning OR EMBARASSING COMMENTS, PHOTOS OR VIDEOS OF YOU ONLINE
E.	Somebody FOLLOWED YOU AGAINST YOUR WILL, EITHER PHYSICALLY OR ONLINE in a way that made you feel uncomfortable

Source: SDG 16 Survey questionnaire

request sent to all National Statistical Offices around the world, which will enable the reporting of data on indicator 11.7.2 at the global level.

Bottlenecks to progress

SDG target 11.7 aims to provide universal access to public and green spaces that are safe, inclusive and accessible, specifically for women, children, older persons and persons with disabilities. Listed below are five of the major bottlenecks for achieving this target.

1. ***Inadequate Planning and Design:*** Insufficient consideration of accessibility, inclusivity and safety in the planning and design of public spaces can hinder progress toward achieving this target. Lack of adherence to universal design principles and accessibility standards, limited attention to the diverse needs of different user groups and inadequate provision of amenities and facilities can create barriers to access and enjoyment of public spaces.

2. ***Limited Funding and Resources:*** The availability of financial resources for the development and maintenance of green and public spaces can be a bottleneck. Limited funding and competing priorities may result in insufficient investment in creating and maintaining inclusive and accessible public spaces, particularly in marginalized or economically disadvantaged areas.

3. ***Social and Cultural Barriers:*** Social and cultural norms, attitudes and gender

biases can limit the participation and inclusion of certain groups in public spaces. Discrimination, harassment and safety concerns may deter women, children, older persons and persons with disabilities from fully accessing and utilizing public spaces.

4. ***Inadequate Collaboration and Stakeholder Engagement:*** Insufficient collaboration and coordination among relevant stakeholders, including government agencies, urban planners, community organizations and disability rights groups, can hinder the development and maintenance of inclusive public spaces. Engaging all stakeholders in the planning, design and management processes is essential for creating spaces that meet the needs and requirements of diverse groups and foster social cohesion.

Intervention highlights

Marshals, alerts and cameras: preventing sexual violence on New Delhi's public buses (technology)

Since 2010, the city of New Delhi, India's capital, has implemented multiple initiatives to increase safety and reduce sexual harassment on public transport. Through the Bus Marshal programme, the city has trained and deployed plainclothes police officers to prevent and respond to incidents of sexual harassment and violence on the city's public buses. This has been complemented by the launch of the Himmat mobile app, which enables women to

quickly share their locations with the police and other phone contacts in the event of a violent incident.[110] The city has furthermore supported these initiatives through measures such as installing CCTV cameras and deploying more female police officers, helping to reduce the risk of violence and harassment across the city's public spaces and transport networks.

Over the past decade these initiatives have achieved substantial success. The number of reported sexual harassment cases decreased by more than 60 per cent just one year after the implementation of the Bus Marshal programme.[111] Furthermore, according to a survey conducted by UN Women in 2013, the proportion of women feeling unsafe in public spaces decreased from 95 per cent before the Bus Marshal programme to only 39 per cent after its implementation.[112] These findings thus demonstrate the potential impact of both in-person and digital monitoring programmes in helping to improve women's safety and reduce sexual violence in public transportation systems.

Fighting sexual harassment in Marrakesh through cross-sector training (governance)

In 2014, the city of Marrakesh, Morocco, launched an initiative to help address sexual harassment in the city's public spaces. The initiative, supported by UN Women, has aimed to improve women's safety and change public perception of sexual violence by engaging influential actors across the transportation and media sectors. This effort has involved providing sexual harassment and violence-prevention training to approximately 30 journalists and more than 1,500 bus and taxi drivers across the city.

The initiative so far appears to be achieving significant progress in the city. In the country's first-ever participatory safety audit in 2016, nearly 40 women noted that the engagement represented real progress towards addressing sexual harassment and violence in the city.[113] While additional studies will be needed to evaluate the specific quantitative impacts of the initiative, its training and engagement of various stakeholders already represent significant progress towards creating safer public spaces for women and girls in the city.

Crowd at market place in medina quarter Marrakesh, Morocco © Shutterstock

> **Target 11.a**
> **Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.**

Indicator 11.a.1: Number of countries that have national urban policies or regional development plans that (a) respond to population dynamics; (b) ensure balanced territorial development; and (c) increase local fiscal space.

Quick facts

- Since 2018, an increasing number of countries are developing and implementing national urban policies (NUPs). Out of 157 countries for which information on NUPs was available in 2020, 38 per cent were in development stages, 46 per cent are in implementation stage and 16 per cent have already begun monitoring and evaluation.

- As of 2021, over 90 per cent of NUPs fulfilled the first two qualifiers for indicator 11.a.1 ("respond to population dynamics" and "ensure balanced territorial development"), but less than half fulfilled the third qualifier ("increase local fiscal space").

Progress Synopsis

Urban-rural linkages facilitate important flows of people, natural resources, capital, goods, ecosystem services, information, technology, ideas and innovation. Strong linkages between urban, peri-urban, rural and other human settlements enhance sustainable development, primarily by channeling resources to where they have the largest net economic and social benefits. National urban policies (NUPs) are central instruments that promote these linkages and flows across settlement types, and in turn ensure integrated development.

Progress towards attainment of SDG target 11.a is measured through indicator 11.a.1, which considers multiple development and territorial levels, and other forms of aggregation and disaggregation. The indicator is based on the notion that national urban policies are the primary policy tool to promote healthy urban-rural linkages. Well-crafted NUPs should support participation, partnership, cooperation and coordination of actors across the urban-rural continuum, as well as facilitate dialogue between them.

A coordinated effort from government through a NUP or regional development plans (RDP) provides the best opportunity for achieving sustainable urbanization and balanced territorial development by linking sectoral policies; connecting national, regional and local government policies; and strengthening urban, peri-urban and rural links through balanced territorial development. Equally, the cross-sectoral and multi-faceted nature of NUPs contributes to other SDGs. As just one example, a strong national urban policy can fortify the agricultural sector in a way that helps deliver on Goals 2 (hunger), 3 (health), 6 (water and sanitation), 8 (sustainable economic growth), 9 (resilient infrastructure) and 13 (climate change) due to the broad impacts of food systems (Box 31).

Global Trends and Conditions

An increasing number of countries are using national urban policies to guide their development

UN-Habitat, along with other partners such as OECD and Cities Alliance, have been collecting and updating global data from Member States on the status of implementation of national urban policies and the three qualifiers for SDG indicator

Box 31: Urban agri-food systems transformation: a key entry point to promote systemic approach and achieve sustainable urban development

About 70 per cent of food supply is consumed by inhabitants in areas classified as urban and this percentage is expected to increase with urbanization. Many urban and peri-urban communities are exposed to food and nutrition insecurity combined with the diffusion of diet-related non-communicable diseases as well as higher rates of obesity. Peoples' food consumption patterns are rapidly changing from consuming staple grains, legumes, fruits and vegetables to diets that include more processed foods, animal- source foods, refined carbohydrates, and increased intake of edible oils and sugar-sweetened beverages. Moreover, extreme weather events such as floods, droughts and storms impact urban areas and local food systems in particular, threatening the supply and access to food and basic services.

In this context, FAO is increasingly prioritizing the urban food systems agenda and supporting governments at all levels to promote and build sustainable food systems transformation along the rural-urban continuum. The FAO Strategic Framework 2022-2031 includes urban agri-food systems as one of the 20 priority programme areas which FAO is implementing along with key partners such as United Nations agencies and city networks. The FAO Framework for the Urban Food Agenda, launched in 2019, aims at supporting governments at all levels on integrating food systems in local policy, planning and actions. Building on this framework, Initiative was launched in 2020 to strengthen the environmental aspect of urban agri-food systems. Urban agri-food systems work is currently implemented in various cities (including metropolitan, intermediary and small cities and towns) and it consists of a vast range of programmes, projects and initiatives developed and implemented in partnership with different stakeholders: civil society, academia, United Nations and international agencies, city networks and relevant public and private bodies.

Source: FAO, 2017; FAO et al., 2020; Popkin et al., 2020

11.a.1. In general, UN-Habitat and OECD have identified that though definitions of NUPs vary between countries, they commonly refer to a coherent set of decisions through a deliberate, government-led process rallying and coordinating diverse actors towards a common vision and goal to promote transformative, productive, inclusive and resilient urban development for the long term. In the 2020 survey, all 162 countries that were surveyed reported having national-level urban policies, although these policies took different forms and were at different development stages and with varying thematic foci. This figure was an increase from 150 countries identified as identified in 2018, signaling the growing importance of NUPs in guiding national urban development, particularly against the SDGs and NUA. The majority of NUPs (at 56 per cent, a 5 per cent increase from 2018) take an explicit form, namely consisting of a dedicated policy entitled National Urban Policy or equivalent, while others are embedded in national development strategies or sectoral plans (e.g. housing, transport, land use).[114]

A transition of NUPs towards implementation, monitoring and evaluation

Since 2018 NUPs have continued to mature in their different elements, advanced in their implementation and embraced wider objectives. Out of 157 NUPs for which information was available in 2020, 38 per cent were in the development stages (11 per cent in feasibility, 7 per cent in diagnosis, 20 per cent in formulation) and 62 per cent are being or have been implemented (46 per cent in implementation, 16 per cent in monitoring and evaluation). These figures include a near doubling for the number of countries actively formulating NUPs, even as the number of countries in feasibility and diagnosis decrease (Figure 26). Some of the countries that recorded progressions from diagnosis to formulation stages include Jordan, Myanmar and Zambia, while countries such as the Czech Republic, Malawi, Saudi Arabia and Sweden reported progression from the development to the implementation stages.

Countries reporting widespread SDGs mainstreaming into NUPs

Analysis of existing NUPs indicates that countries are eager to achieve diverse outcomes through this policy instrument, with the most common aim being "balanced territorial and urban development in a country" (55 per cent), "a coherent vision for national urban development" (44 per cent) and "improved policy coordination across sectors" (31 per cent). In

Figure 26: 11a.1.- Stages of development of NUP in 2018 and 2020, n = 150 (2018), n = 157 (2020)

- Feasibility
- Diagnosis
- Formulation
- Implementation
- Monitoring and evaluation
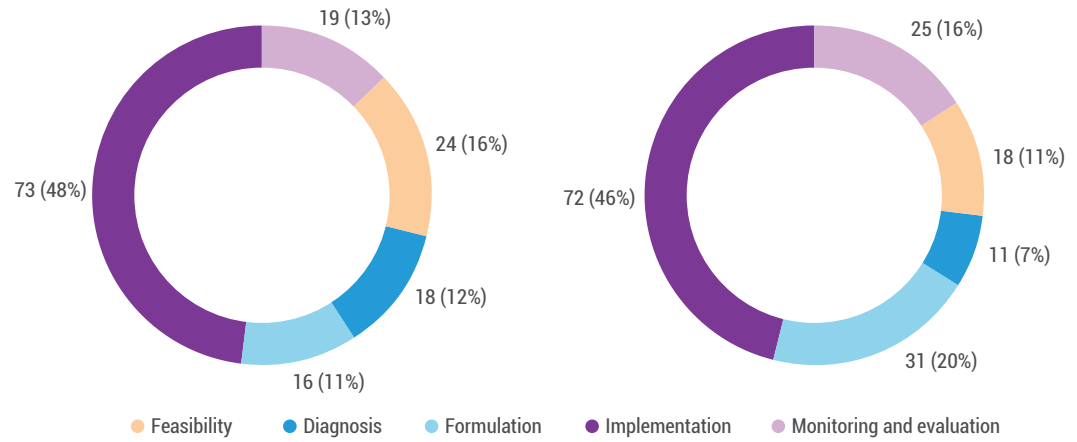
Note: No information was available for five NUPs out of the 162 NUPs identified. Data are drawn feom the OECD/UN-Habitat/Cities Alliance National Urban Policy Country Survey 2020, UN-Habitat/OECD (2018), *Global State of National urban Policy*, https://dx.doi.org/10/1787/9789264290747-en, the UN-Habitat NUP database and countries' websites.

addition to their overarching role of guiding national development, more than two-thirds of the countries that participated in the 2020 survey recognize the potential for NUPs to advance the SDGs, going beyond the aspirations of Goal 11 that focuses on "cities and human settlements." Overall, 58 out of 86[115] countries reported to have mainstreamed the SDGs into their NUPs, while 52 countries (60 per cent) had mainstreamed the New Urban Agenda as well as regional agendas such as the European Urban Agenda and Africa Agenda 2063, among others. For example, the national urban policy

of Cuba (National Action Plan Cuba 2017-2036) is designed to implement the NUA and is also aligned with SDGs. In addition, it constitutes a long-term plan to improve urban and territorial development in the country. Trends in mainstreaming SDGs and NUA in NUPs vary across the five global regions. The Arab States and Africa have the highest share of countries at 86 per cent and 79 per cent for SDGs and 79 per cent and 71 per cent for NUA, respectively.

Changing focus, but strong fundamentals, for NUPs

NUPs have become more comprehensive, covering wider thematic areas and giving more evidence on their links to support positive economic, social and environmental development. Between 2018 and 2020, the shares of NUPs providing extensive or moderate attention to different thematic areas remained high, with large improvement observed in climate resilience focus areas:

Figure 27: Number of NUPs and RDPs that fulfill the SDG 11.a.1, by type of qualifier, n = 58 (NUPs), n = 43 (RDPs)
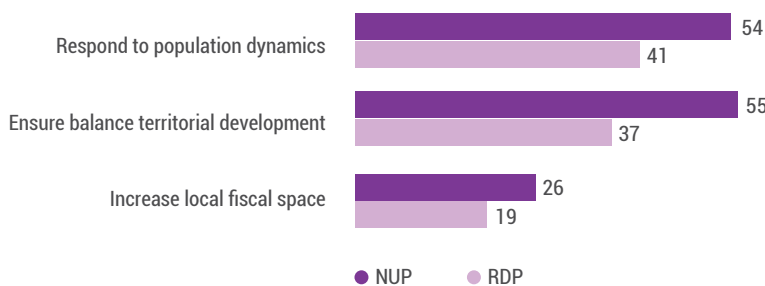
- NUP
- RDP

Note: Data are drawn from the OECD/UN-Habitat/Cities Alliance National Urban Policy Country Survey 2020.

- Spatial structure (78% in 2018 and 80% in 2020),

- Human development (83% in 2018 and 78% in 2020),

- Economic development (69% in 2018 and 67% in 2020)

- Environmental sustainability (68% in 2018 and 64% in 2020) and

- Climate resilience (36% in 2018 and 48% in 2020).

Although the results of the comparison need to be interpreted carefully, they indicate that NUPs have overall extended their thematic scope. One likely explanation for the slight declines in some of the thematic areas are clearer guidance in assessing the level of attention provided in 2020 as compared to 2018.[116]

Ultimately, however, in order to deliver on SDG target 11.a, NUPs must meet three fundamental criteria. An assessment done as part of the *Global State of National Urban Policy 2021* report indicated that 40 per cent of NUPs fulfilled the criteria for SDG 11.a.1. Among the three 11.a.1 qualifiers, "ensure balanced territorial development" was reported as "fulfilled" by 54 NUPs (93 per cent) and the second qualifier "respond to population dynamics" is reported as "fulfilled" by 55 NUPs (95 per cent), while "increase local fiscal space" was regarded as "fulfilled" by only 26 NUPs (45 per cent).

Similarly, "respond to population dynamics" and "ensure balanced territorial development" were reported as fulfilled by RDPs from 41 and 37 countries, respectively, while "increase local fiscal space" was reported as fulfilled only by 19 countries. This gap points to a clear understanding among countries on the role of NUPs in helping accelerate the implementation of NUA and the urban dimension of the SDGs, but a need for more focus on fiscal tools.

National urban policies provide the base framework, but gaps exist for implementation

UN-Habitat and partners continue to support countries as they formulate and implement their NUPs, with impactful outcomes noted across

Figure 28: Ministries in charge of implementing NUP and SDG 11
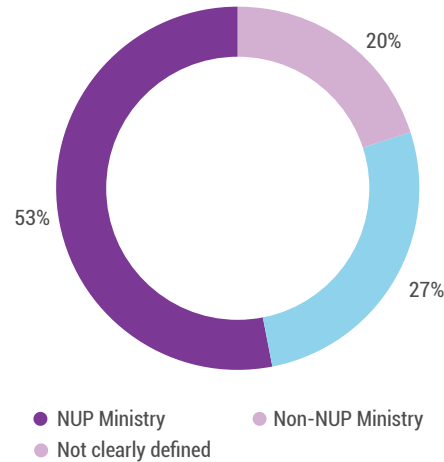
Note: Data are drawn from the OECD/UN-Habitat/Cities Alliance National Urban Policy Country Survey 2020.

regions. While there has been notable progress across countries to formulate and implement NUPs in line with the requirements of SDG 11.a., there remains significant gaps to accelerate progress towards the desired future envisioned under target 11.a. Among the key gaps noted across countries are lackluster coordination and insufficient resources, as well as a lack of better-defined official institutions and capacity development strategies to further entrench NUPs into all development areas. The lack of financial and human resources are the two main challenges that many countries highlight.

A lack of expertise at the intersection of various thematic areas and urban policy and limited coordination mechanisms between national and local levels are common obstacles towards facilitating the design and integration of SDG monitoring systems. Weak bottom-up data collection strategies are quite evident in most countries, especially in terms how data can facilitate reviews of current NUPs and inform future revisions of old NUPs. Out of the 157 countries with a national urban policy in 2020, only 53 per cent have a ministry that is responsible for NUP formulation and implementation (Figure 28). This low figure is a clear indication that NUPs

are not adequately prioritized by almost half of all countries. Greater involvement of subnational governments in the definition, implementation and follow-up of NUPs is needed given that only 44 countries have a platform of dialogue between national and sub-national governments in different NUP stages [GSNUP, p.80).[117]

Key bottlenecks to progress

Target 11.a aims to support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning. Listed below are five of the major bottlenecks in achieving this target.

1. *Limited Coordination and Collaboration:* Inadequate coordination and collaboration between urban, peri-urban and rural areas pose a significant bottleneck, and between different levels of government. Fragmented governance structures, lack of communication and inadequate coordination mechanisms hinder the establishment of effective links and shared development planning strategies across different regions. This concern applies to not only the planning stage of policies but also the implementation, the monitoring and the evaluation stage.

2. *Insufficient Infrastructure and Connectivity:* Inadequate infrastructure and connectivity between urban, peri-urban and rural areas impede their integration and hinder inclusive and sustainable development. Limited transportation networks, poor road conditions and inadequate access to basic services create barriers for economic, social and environmental linkages.

3. *Economic Disparities and Unequal Development:* Wide economic disparities and unequal development between urban, peri-urban and rural areas present a significant challenge. Unequal distribution of resources, investment and employment opportunities exacerbates the urban-rural divide, hindering

efforts to establish positive economic and social links.

4. *Limited Resources and Capacity:* Many countries, particularly those with limited resources, face challenges in allocating sufficient funds and building the necessary capacity to support regional and national development planning, as well as local governments. Inadequate financial resources, technical expertise and institutional capacity hinder the implementation of coordinated strategies and policies.

5. *Lack of Integrated Planning Approaches:* The absence of integrated planning approaches across urban, peri-urban and rural areas is a significant bottleneck. Fragmented and sectoral planning practices often prevail, leading to disjointed development outcomes. Emphasizing integrated land use planning, sustainable resource management and participatory decision-making processes are essential to address this bottleneck at all policy development stages.

Intervention highlights

Coordinating across the delta: protecting Yangtze's environment and boosting the regional economy (regional development plan)

In 2019, China's government approved the creation of an intermunicipal cooperation body called the Yangtze River Delta Eco-Green Integrated Demonstration Zone.[118] The demonstration zone aims to promote intraregional cooperation on balancing both economic development and environmental protection across the Yangtze River Delta region, which includes Shanghai and parts of the Jiangsu and Zhejiang provinces. So far the demonstration zone has established an executive council; developed cooperative ecological and conservation regulations; and implemented schemes to coordinate construction and investments across the region.

The zone has already achieved some notable successes across the region. Water quality has been significantly improved and a 10.5-km ecological shoreline has been developed along the lakefront as a result of greater coordination in conservation efforts. Furthermore, the zone has been able to improve cross-regional investment, business and planning conditions, helping local governments implement more than 65 major construction projects across the region. The success of these efforts in one of China's largest regions thus demonstrates the impact that effective coordination can have on increasing both economic and environmental links across a diverse region.

Implementing the Niger State Urban Policy (subnational urban policy)

In 2022, Nigeria's Niger State approved its first ever urban development policy. The policy, developed with support from UN-Habitat, aims to promote balanced territorial development and more efficient, better-integrated cities across the state region. To help achieve this goal, the policy outlines various participatory processes and other interventions that can be implemented by governments at all levels.

While policy implementation is still underway, some impacts from the policy can already be observed. Integrated development plans have been enacted in the cities of Minna and Suleja, outlining both long-term plans and some more immediate interventions. The latter have included the planting of more than 8,000 indigenous trees to help build climate resilience and combat desertification in the region. State utilities have furthermore been able to achieve greater levels of intraregional coordination to improve water quality and sanitation services for over 4,500 state residents, helping to reduce the prevalence of water-borne illnesses. While much remains to be observed in the region, the Niger State development plan signals that regional coordination is trending in the right direction.

Hitting all three qualifiers: Bulgaria and Costa Rica (balanced territorial development)

Bulgaria has mainstreamed all three qualifiers in target 11.a.1 in its urban development framework. To ensure balanced development of Bulgarian regions and overcome negative demographic trends, the National Concept for Spatial Development (NCSD) and the country's regional development plan are based on regional socioeconomic and demographic trends. Fiscal support and transfer for regions, cities and municipalities are stipulated, with population as a main distribution criterion. The NCSD recommends moderate polycentrism to ensure the balanced territorial development of Bulgaria. Similarly, in Costa Rica, the National Urban Development Policy 2018-30 promotes balanced territorial development by proposing a system of cities, and urban development decisions based on the system. Key to the system is the articulation of a network of intermediate cities to allow peer-to-peer knowledge exchange. Fiscal space is also an important element, with Costa Rica creating tools to finance and manage urban development, including modifying the national Urban Planning Law. Specifically, the policy focuses on the importance of improving the real estate tax and special contributions as the two main fiscal instruments.

Partially explicit but still effective: Luxembourg's urban policy (cross-border planning)

While Luxembourg does not have an explicit national urban policy, the country nevertheless articulates well on how to implement the qualifiers for SDG 11.a.1.64 Their national policy is also broader and outward looking. It covers cross-border cooperation policy, with a focus on cross-border agglomerations such as the Franco-Luxembourg conurbation of Alzette Belval, and with various ministries. Examples include the Development, Monitoring and Implementation of Cross-border Spatial Development Strategies led by the Ministry of Energy and Spatial Planning, and the Interministerial Coordination Committee for Cross-Border Cooperation led by the Ministry of Foreign and European Affairs.

Target 11.b
By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.

Indicator 11.b.1: Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030.

Quick facts

- The number of countries with national strategies for disaster risk reduction has increased from 55 in 2015 to 126 by end 2022.

- One of the key elements of national disaster risk reduction strategies is to promote policy coherence and compliance with the SDGs and the Paris Agreement. A total of 118 countries have reported having some level of policy coherence with other global frameworks.

Progress synopsis

Governments have placed high importance on adopting and implementing national and local disaster risk reduction strategies. They also recognized the need for putting in place appropriate disaster risk reduction governance arrangements and creating a conducive institutional framework with strong multi-stakeholder and multisectoral engagement to effectively reduce disaster risk. In this regards, Sendai Framework Target E is set to track the progress countries made in adopting national disaster risk reduction strategies, aligning with SDG Indicator 11.b.1.

Advancements have been made in strengthening disaster risk governance since the adoption of the Sendai Framework in 2015. The number of countries with national strategies for disaster risk reduction has increased from 55 in 2015 to 126 until end of 2022. The UN system continues to provide technical support and capacity development for the enhancement and implementation of these national strategies.

While Sendai Framework promotes a multi-hazard and multi-sector approach to disaster risk reduction, national disaster risk reduction strategies often focus on natural hazards.

The climate emergency has also triggered a strong call for greater synergy between climate action and disaster risk reduction and several governments are adopting comprehensive approaches to managing risk together with adapting to climate change.

11.b.2: Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030.

Quick facts

- By the end of 2022, a total of 102 countries reported having local governments with disaster risk reduction strategies.

- The average proportion of local governments in these countries that have local disaster risk reduction strategies is reported to be 72 percent.

Progress synopsis

The accumulated economic, social and environmental cost of small-scale disasters can be higher in comparison to high-impact, low-frequency events occurring over the same time period. Local governments globally have made concerted efforts in developing and implementing local disaster risk reduction strategies in line with the national strategies. Sendai Framework Target E also tracks the proportion of local governments adopting DRR strategies. As at the end of 2022, there were 102 countries that reported having local governments with disaster risk reduction strategies.

Number of Countries reporting having National DRR Strategies

| 2015 | 55 |
| 2022 | 126 |
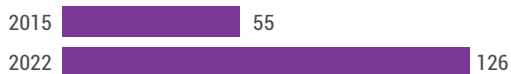
Though definitions in local governance vary across regions and countries, even in terms of the constitution of local administrative units, the governments have made considerable progress in tracking the changing landscape in local level policy-making. Globally, the average proportion of local governments with such strategies is estimated to be 72 percent.

Understanding of localized impact of disasters and extreme events is a critical basis to avert, minimize and address losses and damages. To support Member States to comprehensively track such losses and damages, UNDRR, UNDP and WMO are jointly developing a disaster losses and damages tracking system that will inform risk reduction and adaptation measures, as well as benchmark the outcomes of their implementation. This system will enable a stronger exchange of information both horizontally across departments (such

as National Meteorological and Hydrological Systems, National Disaster Management Organizations and other ministries) and vertically between the local governance structures and national data repositories.

Number of Countries reporting having Local Governments DRR Strategies

| 2015 | 51 |
| 2022 | 102 |
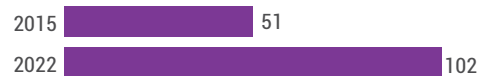
Flooded area caused by heavy downpour of monsoon season Karachi, Pakistan © Shutterstock

Box 18: Making Cities Resilient 2030 (MCR2030)

Making Cities Resilient 2030 (MCR2030) is a unique cross-stakeholder initiative for improving local resilience through advocacy, sharing knowledge and experiences, establishing mutually reinforcing city-to-city learning networks, injecting technical expertise, connecting multiple layers of government, and building partnerships. Through delivering a clear roadmap to urban resilience, providing tools, access to knowledge and monitoring and reporting tools, MCR2030 supports cities around the world on their journey to reduce disaster, climate and other risks.

ROADMAP. The ultimate goal of MCR2030 is to ensure cities become inclusive, safe, resilient and sustainable by 2030. to realise this goal, the initiative follows a programmatic approach, built around a three-stage 'resilience roadmap' that guides cities on how to improve resilience overtime. The three-stage resilience roadmap include (along with their status as of end 2022):

• Stage A – Know better: Supporting cities to better understand disaster risk via induction and orientations on disaster resilience: 668 cities are at Stage A

• Stage B – Plan better: Supporting cities to better govern disaster risk via support on assessments and diagnostics as well as planning: 340 cities are at Stage B

• Stage C – Implement better: Supporting cities to better implement disaster risk reduction via more resilient investment across sectors: 469 cities are at Stage C

This roadmap is both flexible and iterative. Cities may enter at any stage, and progress onto the next stage as their needs and commitments to MCR2030 evolve over time and as they reach the milestones, based on set criteria and pledged commitments.

RESULTS & IMPACT

32 national governments, and national and regional association of municipalities from 30 countries and1,765 local governments and partners have joined the MCR2030 initiative. This includes 1,477 cities and 288 partner organizations around the globe. 214 services are being provided by MCR2030 service providers. Amongst these, 178 services are provided by MCR2030 participating entities, and 36 are provided by 20 MCR2030 Resilience Hubs that . are local authorities committed to support and mentor other municipalities . The impact of MCR2030 is far reaching beyond these cities: New partnership initiated, such as the UNDRR's ARISE – Private Sector Alliance, is paving ways to private sector's practical contribution on urban resilience. Furthermore, urban climate resilience agenda are sensitized in the COP process through the leadership of MCR2030 Resilience Hubs, COP-27 host Sharm El-Sheikh, and COP-28 host Dubai.

In May 2023, the United Nations General Assembly in New York adopted the **Political declaration of the high-level meeting on the midterm review of the Sendai Framework for Disaster Risk Reduction 2015–2030** that made several recommendations including, calling upon Member States to: '*Strengthen comprehensive disaster risk governance, taking into account their national circumstances, needs and priorities, including by supporting and enabling all local authorities to have disaster risk reduction strategies and local platforms for disaster risk reduction, or similar mechanisms, in place, including by strengthening the role of local authorities for multi-hazard risk governance with the provision of financial assistance, technical support and capacity development; promoting local ownership through community-based disaster risk management approaches; and participating in the Making Cities Resilient 2030 initiative to promote exchanges between cities*'

Target 11.c
Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.

Quick facts

- Almost 30-40% of local building materials in many countries are imported. Import substitution is required to ensure more local materials are used locally.

- Investments in producing local building materials provide cheaper options and ensure that such materials are friendly to the local ecosystem.

- Investments in the use of local materials may however disregard imported sustainable building materials that may be affordable and resilient and at times provided at a lower cost than locally produced materials.

- There is little direct ODA financing to the sector of producing local building materials, thus most finances used for buildings are indirectly allocated through the receiving sectors such as education, health, etc.

Progress synopsis

Human settlements are comprised of the built environment, or the structures that provide people with shelter, employment, education, nourishment, culture and recreation, among other basic human needs. Consequently, the materials used to construct and maintain buildings require significant resources. The building sector generates 40 per cent of global carbon emissions annually.[119] However, business as usual in the construction of the built environment will not deliver sustainable development. If countries utilize local materials for buildings and construct them in resilient fashion, then buildings will help deliver on a multitude of SDGs,

from Goal 9 (infrastructure, industrialization and innovation) to Goal 12 (sustainable consumption and production). Local materials generate less embodied carbon, shorten supply chains and avoid the risk of relying on costly imports. Least developed countries are particularly poised to benefit from sustainable, resilient buildings constructed with local materials, which generate new employment opportunities and draw on existing knowledge about building materials best suited to local climates. Scaling up domestic industries for local building materials requires financial and technical assistance. Progress cannot be measured towards this target, however, due to challenges of identifying a new indicator to match the target.

Global trends and conditions

Progress in the manufacture and use of locally available building materials

Target 11.c currently has no formal flagship indicator for monitoring progress. Despite this status, various key terms have been defined and used to track the performance of the target. The term "locally available building materials" is used to refer to materials for which the entire lifecycle takes place within the same region. The manufacturing process of these materials provides economic benefits predominantly to the region and communities in which the raw materials were sourced and includes all steps of the production chain: 1) extraction of raw materials, 2) manufacturing into building products, 3) sale and use of building products and 4) recycling/end of life.

Locally produced housing materials directly and indirectly contribute to the development

of local economies. This impact is evident in the share of local jobs created directly and indirectly along the production chains of these materials. The close link between production of local building materials and employment is one of the most important economic functions of housing. Investment in and the development of the local building materials industry provides several benefits among which are the creation of products with multiple valuable properties, including high thermal insulating properties; high sound insulation; resistance to insects and rodents; no waste generation; materials that are free from toxic substances; inexpensive and simple construction; high workability and flexibility; fire resistance; availability; and recyclability. Indeed, the use of local building materials has been shown to reduce construction costs and enhance housing affordability.

For example, residential construction makes up between 7—10 per cent of the total labour force in developing economies.[120] Therefore, the relative use of local building materials and resources in the construction industry has a substantial effect on the way in which the construction industry can be harnessed to enable growth in the local economies of LDCs. The development of local sustainable building materials and technologies may also boost the associated retail and consulting industries. The environmental and economic impacts of the chosen construction materials forms one of the most significant parts of a building's overall sustainability,[121] therefore the focus of target 11.c is on the choice of building materials in measuring the increase in sustainability and resilience of buildings in LDCs.

Use of locally available building materials with low embodied energy provides substantial benefits in decreasing the carbon footprint of buildings, especially in rapidly urbanizing regions where most of the building stock is yet to be built. The use of local materials directly contributes to the resiliency of settlements, as these materials tend to be well-suited to the local climate and are conveniently altered and replaced using locally available resources. Building with local materials

also enhances the social acceptability of new construction. However, a conscious choice of sustainable building materials in various global contexts can only be made if adequate information on the carbon footprint and environmental impacts for different materials is available for each location. The creation of national life-cycle inventory databases of various tested and tried construction materials is thus an effective way to define the sustainability of different materials. Capacity development of local communities and local construction industry stakeholders also supports social development, in terms of skills development and local capacity to sustain a construction industry using these materials. It is also important for local builders to have the knowhow for repair work on existing buildings in order to avoid dependence on external expertise.

Global trends in official development assistance and potential application to resilient buildings utilizing local materials

In many least developing countries, conventional sources of funding are often unavailable for investment on the scale needed to meet the projected demand and gaps for urban infrastructure and housing. Many LDCs continue to face deficits in public budgets, particularly those needed to support resilient housing sectors. Equally, the contribution of official development assistance (ODA) to the resilient housing sector is generally insignificant. While ODA data is not disaggregated to calculate the amount dedicated to financial and technical assistance for utilizing local building materials in LDCs, there are nevertheless macro trends to consider. Overall, ODA to LDCs has been rising and this upward trajectory has remained consistent even during the years affected by the COVID-19 pandemic (Figure 28).

These consistent increases in ODA are a good sign at the global level, but often this is not very evenly felt in the local housing and infrastructure sectors for all LDCs. For example, total financial inflows for water supply and sanitation shows that while some countries are recipients of

Figure 28: Total official ODA to least developed countries 2000 to 2020
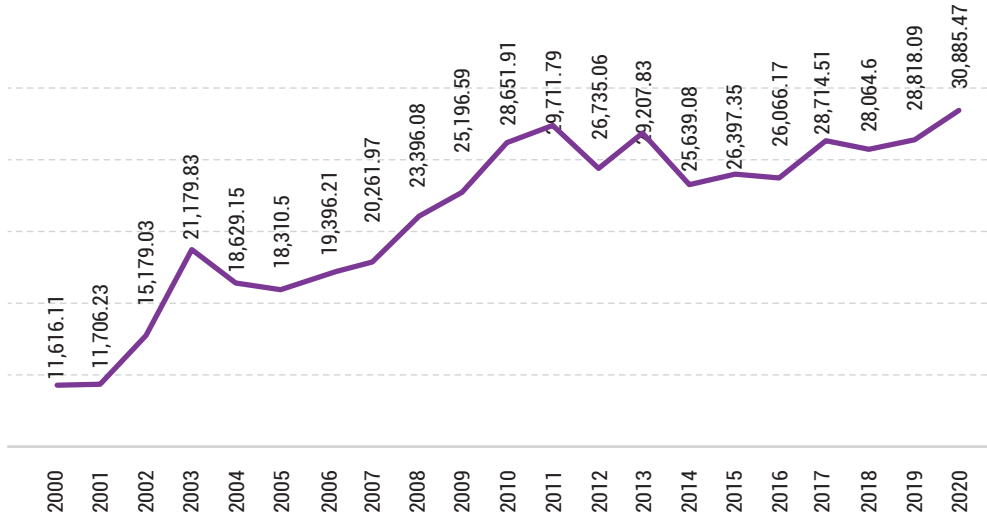
over $100 million, others have received far less support in these sectors for the same reference year 2020 (Figures 29 and 30). There are varied reasons that could account for these financing discrepancies, and further analysis is recommended to provide additional insights on the choices of this ODA at the sectoral levels for

countries or even subnational level support. In the long term, ODA needs to translate into local impact, especially where it is most needed, but even within countries receiving large shares of ODA, most supported projects are in capital cities, leaving secondary cities and towns with limited support for finance for housing or other

Figure 29: Total official financial flows for water and sanitation, by recipient county in 2020.

No data | $0 | $10 million | $25 million | $50 million | $100 million | $250 million | $500 million | $1 billion | $2.5 billion
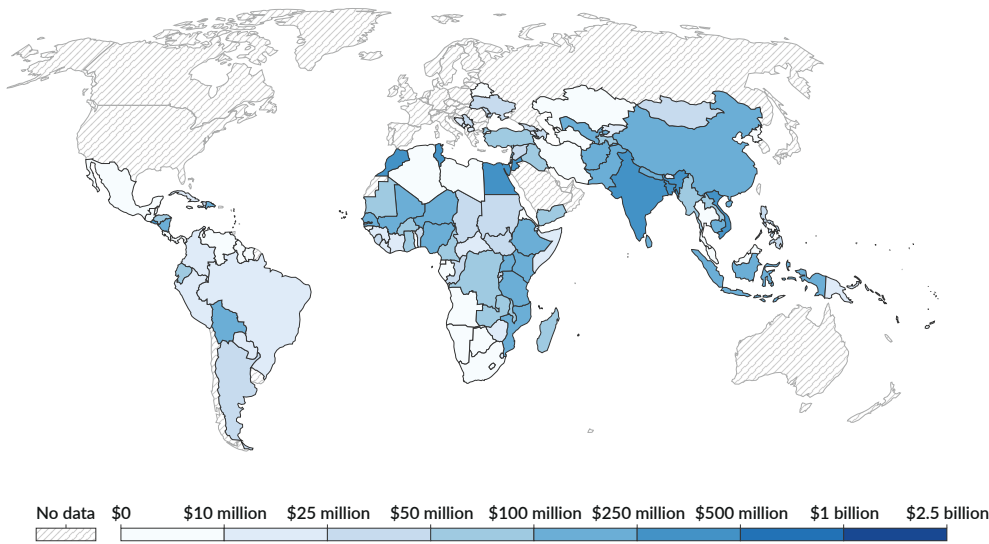
Source: Organisation for Economic Co-operation and Development

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essential urban infrastructure. This narrative
emerges from a recent analysis of a series of
voluntary local reviews that have been processed
in the last three years. Elsewhere, some local
or city authorities have started to seek finance
in national and global markets. However,
this practice is only in its infancy and mainly

accessible to capital cities with well-developed
financing bonds or credit ratings.

At the personal or household level, mortgage
finance provides a good solution to fill the gaps
on housing finance, but this is only accessible
to those who can afford mortgages, leaving

BOX 32: The UNESCO World Heritage Centre is developing a pilot project to better support safeguard and promotion of heritage properties in the urban context in Africa. With the financial support of the Government of Norway, the first phase of the project will focus on four (4) World Heritage properties namely Tombs of Buganda King at Kasubi (Uganda); Royal Places of Abomcy (Benin); Koutammakou, the Land of the Batammariba (Togo) and the Historic Town ofGrand-Bassam (Cote d'Ivoire). The project will develop guidelines for implementation of the 2011 UNESCO Historic Urban landscape in the African context, to ensure that the conservation and promotion of these properties drive sustainable development, in particular towards Goal 11, sustainable cities and communities. The number of UNESCO World Heritage properties where the SDGs and/or the World Heritage Sustainable Development policy arc mainstreamed in the conservation and management (2018-2021) = 223 of which 68 are in Africa and 10 in SIDS.

World Heritage International Assistance is provided to requesting countries each year for conservation of their cultural and natural heritage or for preparing sites and nomination dossiers for nomination to the World Heritage List. LDCs, LMICs, SIDS and post-conflict countries are prioritized for World Heritage International Assistance.

The list of LDCs that received World Heritage International Assistance from 2018-2021 are listed below:

- 2018: Mali, Mozambique, Senegal, Uganda, DRC, Lesotho, Comoros, Djibouti, South Sudan = 9
- 2019: Ethiopia, Malawi, Niger, Bangladesh = 4
- 2020: Ethiopia, Gambia, Mali, Tanzania, Senegal, Benin, Camboda, Lao PDR, Djibouti, Rwanda, Uganda = 11
- 2021: Eritrea, Lesotho, Senegal, Tanzania, Afghanistan, Bangladesh, Lao PDR, DRC, Somalia, South Sudan, Guinea, Cambodia, Sudan = 13

Average over 4 years: 9 per year

Figure 30: Total official financial flows for infrastructure, by recipient county in 2020.

| No data | $0 | $10 million | $30 million | $100 million | $300 million | $1 billion | $3 billion | $10 billion |
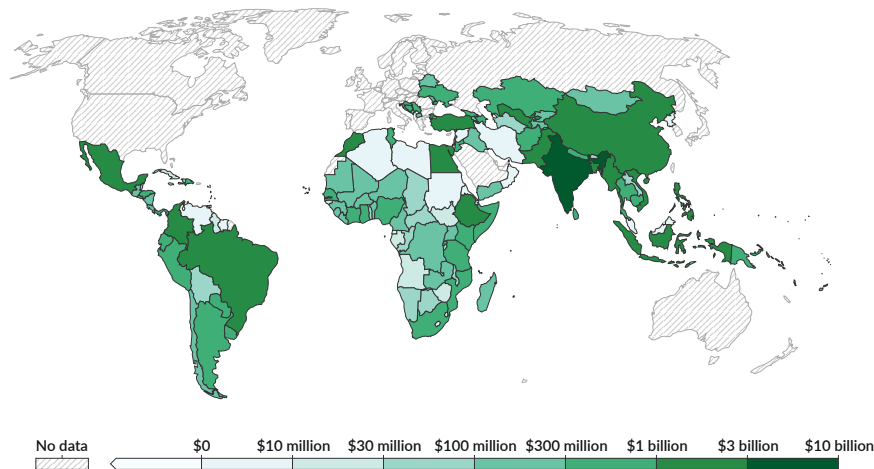
Source: Organisation for Economic Co-operation and Development
Note: This data is expressed in constant 2020 US$.

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low-income earners with no viable financing solutions. Overall, global mortgage financing has been increasing during the last seven years and is increasingly available for many LDC countries, but this is not readily accessible to many urban poor populations and hence the need to provide shelter that is affordable to low-income households remains a big ambition for many city leaders. Furthermore, mortgage financing in most cases does not particularly emphasize the use of local and resilient building materials as a requirement for access.

Constraints to mobilizing financial resources for investment in resilient housing are both financial and non-financial in nature. Non-financial constraints include land legislation that makes it difficult to use real estate as effective collateral, as well as inappropriate national and local regulatory frameworks governing land use, occupancy, and ownership. It's the combination of all these factors that make it difficult to

achieve the aspirations described under target 11c particularly the enhancement of financial and technical assistance, in building sustainable and resilient buildings from use of local materials. In terms of data, there is very limited data available to provide a true picture of the status of progress on the target at the global, regional and sub-national levels. Many Voluntary national reviews have not reported the status of this target and the analysis of the Voluntary Local reviews shows a similar finding. With 7 more years left to the end of the 2030 agenda, it is thus unlikely that the reporting situation will improve given that there is now no substantive indicator available to track the progress of target 11c. However, many good case studies have emerged to showcase that indeed use of local materials in construction is possible and can be cheaper and sustainable. The Safer schools initiative is one such example alongside the case study on a Model Village for the Sustainable Future of São Tome and Principe that Habitat and partners have demonstrated.

Box 33: The Safer Schools Initiative

Case study: The Success Story of Resilient Education Sector in Mozambique

Over the past 15 years around 1,000 classrooms have been damaged annually by floods or strong winds in Mozambique. Through its diversified multilevel approach to increasing resilience of human settlements in Mozambique, UN-Habitat identified the key role of schools' vulnerability in defining the magnitude of communities' overall vulnerability to climate change and natural hazards. Therefore, school buildings were identified by a UN-Habitat team as an entry point to progressively build the resilience of human settlements in the country. In 2011, UN-Habitat started the design of the Safer Schools Initiative, funded and delivered in partnership with the Government of Mozambique and the World Bank. This ongoing initiative includes comprehensive technical assessment of schools damaged or destroyed by natural hazards, national hazard risk mapping, development of building guidelines and technical assistance to the central

government in the elaboration of improved building codes to provide more resistance to the school structures facing the impact of the most common natural hazards in Mozambique. After the period of elaboration of national guidelines for safer construction (2012–2015), and a strong partnership established with UNICEF in 2015, the Ministry of Education and Human Development requested UN-Habitat provide technical assistance to a World Bank-funded $15 million school reconstruction and retrofitting programme. Almost 1,100 classrooms were rehabilitated or rebuilt between 2018 and 2020 in central and northern Mozambique using a mix of conventional and local building materials, benefitting approximately 100,000 children and teachers.

Cyclones Idai and Kenneth in 2019 validated the Safer School concept. Despite the destructive power of these events, the newly rehabilitated and constructed school buildings withstood the two cyclones. The Minister reported to the Cabinet Council and to the UN-Habitat Executive Director during her post-Idai mission in April 2019 that "all schools built according to the UN-Habitat proposed standards resisted Cyclone Idai in Mozambique."

The Government is confident that the "Living with Natural Hazards" approach works and is currently further scaling up the Safer Schools approach and has requested all partners to employ the school building codes developed by UN-Habitat in future school construction programmes and projects in Mozambique.

2.0

Monitoring SDG 11: Gaps, milestones and prospects

2.1 Quick facts

- Out of the 15 indicators under Goal 11, 8 are classified as Tier I and 7 are categorized as Tier II.

- A globally endorsed city, urban and rural definition is now available to facilitate consistent monitoring of the urban dimensions of the SDGs.

- The Global Urban Monitoring Framework that was endorsed by the UN Statistical Commission facilitates a harmonized approach to assessing cities across a variety of domains of sustainable urban development.

2.2 Introduction

This section discusses what progress has been made towards creating an enabling environment for monitoring and reporting on the urban SDGs. It covers methodological developments over the last seven years, key capacity development initiatives implemented in cities and countries by different agencies, and the diversity of tools developed by custodian agencies and their partners to enhance data generation and availability. The section also highlights innovative initiatives and partnerships for data collection, analysis, reporting and information sharing that are critical to addressing the remaining gaps that continue to hindering the ability to report on the state of global progress towards SDG 11.

Since 2015, there have been considerable methodological improvements alongside capacity support for cities and countries, both of which assist collection of urban data to measure progress towards the 2030 Agenda for Sustainable Development and the New Urban Agenda. Measuring a large share of the urban dimension of the SDGs requires monitoring

using both traditional and non-traditional data collection mechanisms. SDG 11 currently covers 15 key indicators ranging from housing, transport, urban expansion, culture, environment, disasters, public space, national urban policies and resilience strategies. A majority of these indicators are being monitored globally at the city level for the first time, with many requiring more articulating the concepts and building capacity at the city or subnational levels.

Recent investments in capacity strengthening, piloting and refinement of measurement methods was targeted to national and subnational levels leading to increased levels of urban data production at the country and city levels. Today, out of the 15 indicators under Goal 11, 8 are classified as Tier I, which means that their methodologies are conceptually clear, they have internationally established measurement standards and data are regularly produced for at least 50 per cent of countries and of the population in every region where the indicator is relevant. The remaining seven indicators are categorized as Tier II meaning that conceptually these indicators are clear, have an internationally established methodology and their standards are available, but data are not regularly produced by countries. Therefore, the emphasis in the next five years will be on ensuring that countries and cities scale up the data production for these indicators to ensure a detailed analysis and understanding of what is happening in the urban areas.

2.3 Summary of major achievements in data and monitoring since 2018

2.3.1 Methodological enhancements and capacity development continue to enhance monitoring efforts and actions towards Goal 11

Since 2018, there have been significant developments in the methodological aspects of several indicators that led to tier reclassifications of a majority of the SDG 11 indicators. The metadata on all SDG 11 indicators is now complete and readily available

online as open access information.[122] User-friendly modules have been developed and shared with many national statistical offices and cities as part of larger capacity development initiatives for SDG 11 targets and indicators.[123] The available modules provide detailed articulations of key concepts, how to measure them and how data needs to be collected and aggregated. Over 1,000 training sessions have been conducted through these online modules, while SDG 11 custodian issues hold in-country training sessions in parallel. Table 2.1 summarizes the key methodological advances and changes in SDG 11 indicators since 2018.

Table 3.2.1: Key methodological advances in SDG 11 indicators

Indicator	Key methodological advances and their implications
11.1.1 (Tier I)	To advance measurement of SDG 11.1.1, several consultations have been held with experts to accelerate development of an area-based measurement of the share of population living in slums and informal settlements. Several initiatives are currently underway, which focus on both earth observation and community-based approaches (bottom-up and top-bottom methods). For example, an ongoing initiative dubbed IDEAtlas (http://ideatlas.eu/), funded by the European Space Agency (ESA), aims to develop, implement, validate and showcase advanced AI-based methods to automatically map and characterize the spatial extent of slums from Earth observation data. Ongoing initiatives will inform future methodological adaptation for slum and informal settlement monitoring.
11.2.1 (Tier II)	Originally, SDG 11.2.1 metadata measured access to public transport using circle buffers around public transport stops. While simple to implement, this method did not acknowledge point-to-point connectivity challenges in cities. To capture access to public transport more realistically, the computation method was updated to integrate walking distances along street networks to each public transport stop (service areas), as opposed to drawing circles around each stop. Based on the varied space requirements for different forms of public transport infrastructure, the methodology also introduced a separation of the service areas for low and high-capacity public transport systems. Instead of using a uniform threshold of 500 m, experts in the public transport sector agreed that access to low-capacity systems should be measured using a 500-m threshold and high-capacity systems should be measured using a 1,000-m threshold. This accounts for both the infrastructural space needs but also the willingness among populations to walk longer distances to access high-capacity systems. The updated metadata equally clarifies the measurement of "informal" public transport stops. This has enabled many cities where paratransit is common to more accurately measure the indicator. Finally, a series of qualitative measurements have been developed that cities should track to better understand their progress towards sustainable mobility. Implementation of the updated methodology by countries, UN-Habitat and partners has resulted in increased data availability, with data points now available for about 1600 cities from all world regions. Noting the methodological clarity and data availability, the IAEG-SDGs reclassified SDG 11.2.1 from Tier II to Tier I in November 2022.
11.3.1 (Tier II)	The 2020 update to the metadata for SDG 11.3.1 introduced the globally harmonized approach as the recommended way to delineate the analysis area (degree of urbanisation) and introduced two secondary indicators to help explain the core indicator values: a) built up area per capita and b) total change in built up area. These updates have contributed to enhanced measurement of the indicator, as well as interpretation of the core indicator values.
11.3.2 (Tier II)	The metadata for this indicator was revised in 2020, integrating a simplified measurement method for civil society engagement in decision making. Subsequent follow ups with countries and the IAEG-SDGs resulted in development of a data collection questionnaire and guidelines for selection of respondents, enhancing the methodological clarity. Following these achievements, the indicator was reclassified from Tier III to Tier II in 2020.

Indicator	Key methodological advances and their implications
11.4.1 (Tier II)	In 2019, a global consultation to all Member States was undertaken on the revised methodology for 11.4.1 proposing refined concepts and definitions. In December 2019, the IAEG-SDGs upgraded the indicator 11.4.1 from Tier III to Tier II. The refinement of the indicator was also approved to "total expenditure per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by source of funding (public, private), type of heritage (cultural, natural) and level of government (national, regional and local/municipal)." The first global data collection effort was carried out in 2020 and continues on an annual basis.
11.5.3 (Tier I)	Since 2018, a new indicator was added i.e 11.5.3 (a) Damage to critical infrastructure and (b) number of disruptions to basic services, attributed to disasters -- to capture well the damage to infrastructure and related impacts.
11.6.1 (Tier II)	Consultations held with experts between 2018 and 2019 to harmonize concepts, definitions and monitoring methodologies for waste-related SDG indicators resulted in a recommendation to rephrase SDG 11.6.1 from "proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated" to "proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities." Subsequent developments of the measurement methods resulted in an upgrade of the indicator from Tier III to Tier II by the IAEG-SDGs, with the change of suggested wording in 2020. Significant advances have since been achieved in development of data compilation tools, such as through development of the Waste Wise Cities Tool (WaCT) and engagements with other United Nations agencies to include relevant questions in the United Nations Statistical Division/UNEP Questionnaire on Environment Statistics and the United Nations Children's Fund (UNICEF) Multiple Indictor Cluster Surveys. These sources, in addition to advances in earth-observation-based estimations for the indicator, are projected to enhance data availability across countries over the next few years.
11.6.2 (Tier I)	There were no major changes for SDG 11.6.2 since 2018. However, developments include 1) integration of the globally harmonized method for defining cities, towns and urban areas into the indicator metadata and reporting; 2) model updates to improve data fusion between different input data sources (e.g. satellite and ground measurements); and 3) exploration of different data sources for satellites, which provided additional information on the sources of pollution.\n\nIn addition, a significant increase in ground measurements of particulate matter of over 50 per cent has been observed since 2018, yet mostly in high- and upper-middle-income countries, reflecting a growing interest from countries to monitor air pollution. A United Nations inter-agency working group on SDG 11.6.2 has been established to discuss how to support countries in addressing air pollution.
11.7.1 (Tier II)	Key among the changes implemented since 2018 are a) updates to the SDG 11.7.1 metadata to include clarifications on the definitions and types of open spaces and potential data sources for the indicator; b) integration of the globally harmonized method for defining cities and urban areas into the indicator metadata; c) and development of tools to support cities to produce and validate data at the local level. These methodological clarifications, coupled with support to countries and adoption of the recommended method by other partners has enhanced data availability over the years—with data points spread across more than 1,000 cities by 2023. In November 2018, the IAEG-SDGs also reclassified the indicator from Tier III to Tier II.
11.7.2 (Tier II)	To address the data gap on measuring non-sexual and sexual harassment globally, the United Nations Office on Drugs and Crime (UNODC) has joined forces with the United Nations Development Programme (UNDP) and the Office of the United Nations High Commissioner for Human Rights (OHCHR) to develop the internationally standardized and tested SDG16 Survey Questionnaire and the SDG16 Implementation Manual, which countries can use for collecting data on 11 survey-based indicators under Goal 16 as well as two survey-based indicators under Goal 11, including indicator 11.7.2 on non-sexual and sexual harassment. The SDG 16 survey questionnaire provides a core set of questions about specific behaviors that allow for the measurement of the prevalence of non-sexual and sexual harassment in the population.

Indicator	Key methodological advances and their implications
11.a.1 (Tier I)	One of the key challenges noted during the earlier years of the target tracking was gaps in the original formulation of indicator 11.a.1, "proportion of population living in cities that implement urban and regional development plans integration population projections and resource needs, by size of city," which did not adequately capture the economic, social and environmental issues of the living environment. Through expert group meetings organized by UN-Habitat and partners, the indicator formulation was adjusted to cover three key qualifiers of national urban policies: 1. Responds to population dynamics; 2. Ensures balanced territorial development; 3. Increases local fiscal space. The revised indicator was reviewed by the IAEG-SDGs and officially adopted during the 2020 comprehensive review process, offering countries an opportunity to assess their national urban policies in a more refined manner. This new formulation of the indicator has been used to compile data over the last two years, with an increasing number of countries reporting on the presence of a NUP as well as how it meets the three qualifiers.
11.b.1 (Tier I)	No significant changes
11.b.2 (Tier II)	No significant changes
11.c	During the 2020 comprehensive review, the indicator was dropped due to lack of conceptual clarity, and consultations are ongoing to provide a new indicator to track this target.

In addition to methodological developments, the different custodian agencies for SDG 11 and their partners have led diverse capacity building initiatives targeting countries and cities, whose ultimate goal has been to enhance data availability and use of data in decision-making processes. For example, since 2018, UN-Habitat and its partners have organized and conducted capacity development activities on Goal 11 in over 100 countries, including support to other urban dimensions that are covered in other goal such as Goal 1 and Goal 6, with the aim of reinforcing capacities of the relevant institutions and streamlining national statistical processes. Based on these efforts, most countries are now producing data on the urban dimensions of the SDGs for components that go beyond SDG 11. In addition, UN-Habitat together with many custodian agencies and partners have also been supporting the voluntary local review process, including direct support for data production for cities that has facilitated SDG localization, political engagement and improvement of

data environment, with over 100 VLRs having published data on more than eight goals.

While these efforts have increased data availability across the different indicators, there have been some national-level challenges that have hindered the frequency with which data on Goal 11 is available. For example, many countries that were due for their 2020 census cycle were affected by the COVID-19 outbreak, which affected the data collection process. As a result, some countries are unable to provide new data on some urban dimensions such as slum population for the most recent years.

2.3.2 Technological advancements, partnerships and increasing availability of open source and high-resolution data enhancing monitoring

SDG 11 is among the most unique goals in terms of its unit of measurement (city/urban scale), and also the data needs across different indicators.

At least seven of 14 indicators can be measured using non-traditional data sources, particularly those based on Earth observation and geospatial analysis; while at least three indicators cannot be measured without the adoption of these resources/technologies (SDGs 11.2.1, 11.3.1 and 11.7.1).

Technological advances in earth observation and geospatial analysis over the last few years have presented numerous opportunities for accelerated measurement of these indicators. Among the most notable advancements to date include continued availability of multi-temporal imagery of growing spatial resolution, increasing production of datasets on built-up areas and population distribution at increasing spatial and temporal resolutions and periodic updates, a

rapidly expanding archive of data processing and analysis tools, algorithms and platforms, and a fast-spreading partner network of people and organizations. Some of these resources are compiled in the Earth Observation Toolkit for Sustainable Cities and Human Settlements (box 34)**.** Equally, the continuity in production and free availability of these datasets is key to sustained monitoring of the diversity of SDG 11 indicators. Many global actors are increasingly working towards continuity in their open data initiatives in support of the SDGs, such as European Union's Copernicus Emergency Management Service with the Global Human Settlement Layer (Exposure Mapping Component) which promises to produce a diversity of products every two years (**box ******)

Box 34: The Earth Observation Toolkit for Sustainable Cities and Human Settlements

The abundance of geospatial and earth observation data is a rich source for measuring global progress on the SDGs and the New Urban Agenda, but without proper curation it can prove overwhelming. The huge demand for Earth observation data and geospatial analyses in urban monitoring efforts, particularly under SDG 11 and the NUA, come with multiple requirements: from helping countries and cities learn about available resources and their relevance for different indicators to showcasing good practices and enhancing their capacities to utilize the resources.

To address these requirements, UN-Habitat, the Group on Earth Observations, and Earth Observations for the Sustainable Development Goals (EO4SDG) started working towards the development of the Earth Observation Toolkit for Sustainable Cities and Human Settlements (EO Toolkit) in 2020, with contributions from more than 40 organizations, including representatives of national statistical systems, local authorities, space agencies, academia, research institutions, the private sector and independent Earth observation data producers. The toolkit, which was officially launched in February 2021, consists of two components: a) a stakeholder/partner network of Earth observation data and tools providers and users and b) a platform which presents resources such as data, tools, use cases and learning opportunities that are related to SDG 11 and NUA aspects of housing, open spaces, public transport and the spatial and demographic manifestations of the urbanization process. These resources are continuously updated, while the partners increasingly advance work relating to the toolkit's four priority areas: impact, awareness building, bench learning across levels and promoting fair practices for data provision and use. Through its different components, the toolkit also seeks to facilitate engagement among local communities, cities, national agencies, and Earth observation experts, as well as promote knowledge sharing and collaboration between cities and countries.

As an online knowledge resource, since 2011 the Toolkit has served as an important entry point into the world of Earth observation for countries and cities interested in applying the related technologies to support their SDG 11 monitoring and urban policy planning and implementation needs.

Visit the Toolkit: https://eotoolkit.unhabitat.org

Source: UN-Habitat, 2021
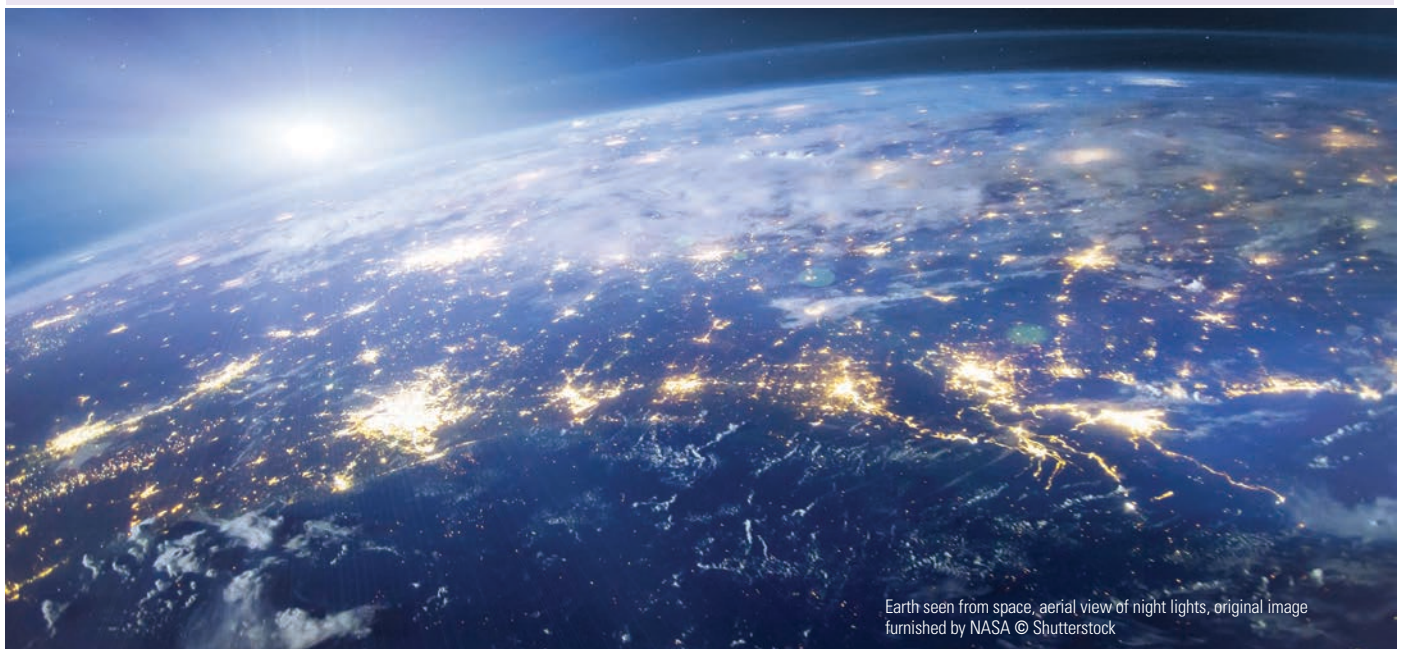
Earth seen from space, aerial view of night lights, original image furnished by NASA © Shutterstock

Box 35: The Copernicus Global Human Settlement Layer delivers operational and continuous monitoring of human settlements over time

Copernicus is the European Union Programme dedicated to achieve continuous, autonomous, and high-quality capacity in Earth Observation. As part of the Emergency Management Service (EMS), the Exposure Mapping Component (Copernicus Global Human Settlement Layer, GHSL) is tasked to provide global, reliable and up-to-date geospatial built-up surfaces and population information for operational crisis management and the analysis of human settlements. Information produced by GHSL are also capable of supporting SDG 11 in several ways. For example, it is possible to quantify the expansion of built-up surfaces and monitor land consumption (SDG 11.3.1), and with GHSL Tools it is possible to easily apply the Degree of Urbanisation method to delineate urban and rural areas for international comparison.

GHSL consists of a set of open and free, harmonised and multi-temporal geospatial dataset available at several spatial resolutions (ranging from 10 m to 1 km grids) with a long time series beginning in 1975 with 5 years intervals. The integration of the GHSL data production in the operational Copernicus services guarantees a continuation of the time series for the built-up surface, population grid, and settlement classification grid based on the Degree of Urbanisation method with global updates every second year.

The GHSL product calculates built-up surface fraction at a spatial resolution of 10 m thanks to Copernicus Sentinel satellite data and methods developed by the European Commission Joint Research Centre. Built-up surface fractions allow to capture building footprints and to differentiate built-up surfaces and open spaces inside human settlements. Moreover, GHS data also include residential and non-residential classification of built-up surfaces, and built-up heights and volumes. These new characteristics ensure a more refined analysis of human settlements. To study urban centres with multi-disciplinary studies, GHSL has produced the Urban Centre Database that contains more than 100 variables for 10,000 urban centres applying an innovative methodology of geospatial data integration.
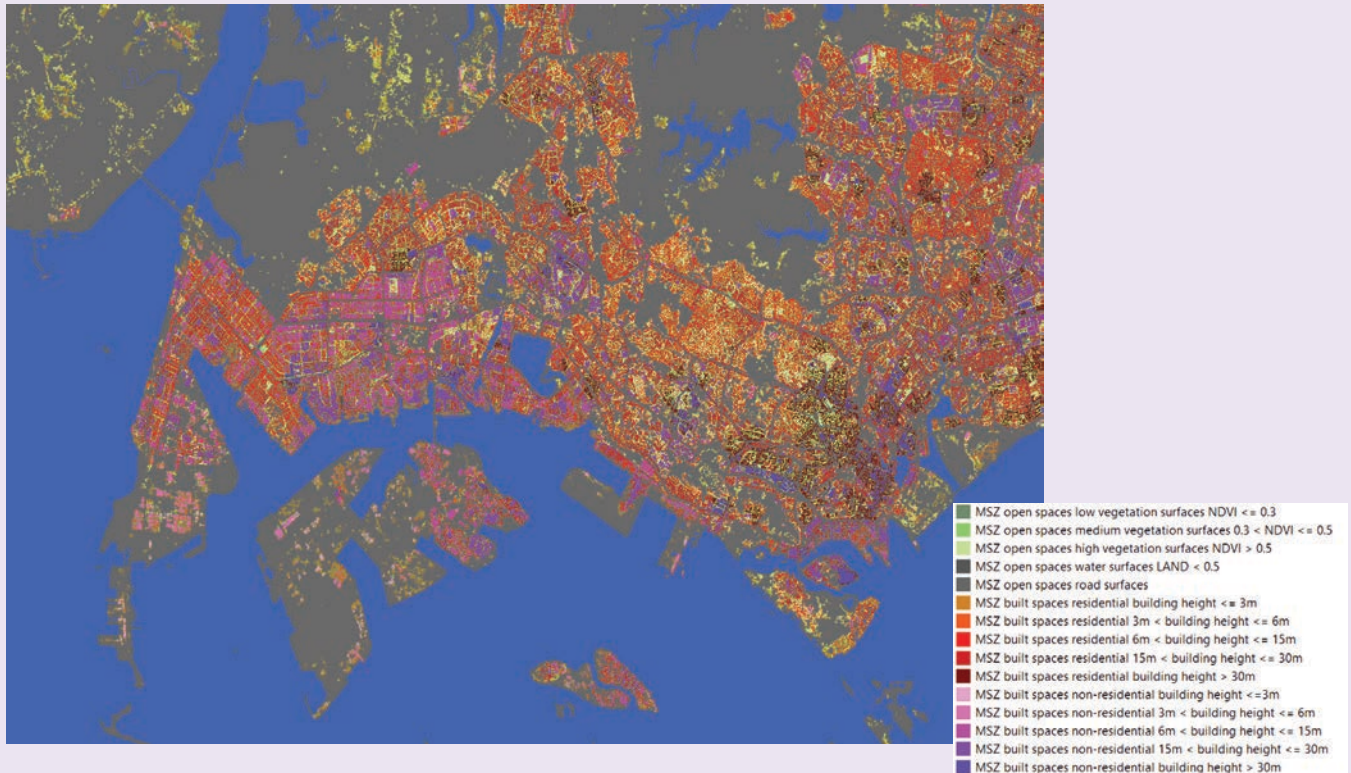
References and resources:
GHSL Website: https://ghsl.jrc.ec.europa.eu/index.php
GHSL Data Package: Schiavina, M., Melchiorri, M., Pesaresi, M., Politis, P., Freire, S., Maffenini, L., Florio, P., Ehrlich, D., Goch, K., Tommasi, P. and Kemper, T., 2022. GHSL Data Package 2022. doi:10.2760/19817.
GHSL Urban Centre Database concept: Melchiorri, M., 2022. The global human settlement layer sets a new standard for global urban data reporting with the urban centre database. Frontiers in Environmental Science, 10. Doi.org/10.3389/fenvs.2022.1003862.
GHSL Tools: https://ghsl.jrc.ec.europa.eu/tools.php

2.3.3 Adoption of a globally harmonized method to defining urban and rural areas has advanced global reporting for many SDG 11 indicators

A major challenge noted in the 2018 SDG 11 synthesis report was the lack of a globally harmonized approach to defining urban and rural areas that would enable consistent measurement of trends and enhance data comparability within and across countries. A major milestone to resolve this challenge was attained in 2020, when the Degree of Urbanization approach was officially endorsed by the United Nations Statistical Commission in March 2020 as the recommended approach for delineating cities and urban areas to produce comparable data on the SDGs (see box 34 and 35, 36 on the core components of the method). The endorsement of this approach followed years of global consultations and engagements that started in 2016 under a voluntary global commitment led by UN-Habitat, the European Commission, the World Bank, Food and Agriculture Organization, OECD and International Labour Organization.

Since the adoption of the approach, UN-Habitat, the European Commission, United Nations Department of Economic and Social Affairs, UNICEF and United Nations Population Fund have been building the capacities of countries to apply the methodology and produce data on SDG 11 indicators (as well as indicators in other goals that require disaggregation at the urban-rural levels). As of 2023, these institutions have implemented direct support to at least 20 countries in Africa, Asia and Latin America and the Caribbean to apply the method and produce data on different SDG indicators, while widescale application of the method already prevails in Europe.

In addition to contributing to the increased availability of comparable data across countries, the support to these countries has also highlighted the value of enhancing accessibility of open and free resources that are well documented, coupled with country specific trainings as effective tools for accelerating progress towards attainment of the SDG targets.

Box 36: The degree of urbanization harmonized approach to defining cities and urban areas

The degree of urbanization (DEGURBA), which was endorsed by the UN Statistical Commission during its 51st session (March 2020) as the recommended method for defining urban and rural areas for statistical comparisons of SDG indicators, uses population size and density at varying thresholds to classify the entire territory of a country into cities, towns and semi-dense areas, and rural areas. By using these three classes instead of only two (urban and rural), it captures the urban-rural continuum. The method is applied in a two-step process. First, grid cells measuring 1 km2 are classified based on their population density, contiguity and population size. Subsequently, local units are classified as city, urban or rural based on the type of grid cells in which majority of their population resides.

The first level of the degree of urbanization classification may be extended in two ways. The first extension is a more detailed territorial typology: it identifies, cities, towns, suburban or peri-urban areas, villages, dispersed rural areas and mostly uninhabited areas. The second extension defines functional urban areas (otherwise referred to as metropolitan areas), covering cities and the commuting zones around them.

Of importance to note is that, while DEGURBA is recommended for statistical comparisons, it is meant to complement and not replace the already existing definitions used by national statistical offices and ministries.
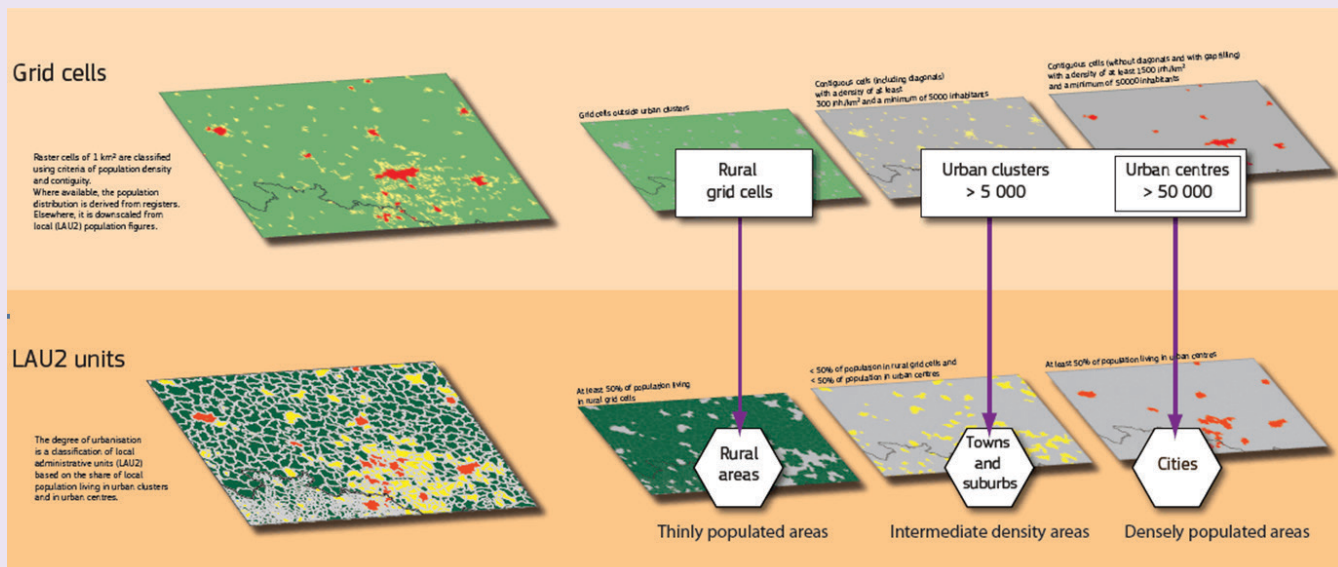
Source: European Union/FAO/UN-Habitat/OECD/The World Bank, 2021. Applying the Degree of Urbanization — A methodological manual to define cities, towns and rural areas for international comparisons, 2021 edition. https://ec.europa.eu/eurostat/documents/3859598/12519999/KS-02-20-499-EN-N.pdf/0d412b58-046f-750b-0f48-7134f1a3a4c2?t=1615477801160

2.3.4 Significant data gaps still exist to track other elements of urbanization.

While progress has been made across Goal 11 on the measurement of the indicators, we note persistent challenges to overcome at the target level that require global coordination and articulation. For example, when the SDG 11.1.1 metadata was formulated, slums and informal settlements were still conceived as largely synonymous concepts but the most recent scholarship offers a more nuanced view.[124] There are now three formulations: 1) slums that are upgraded out of slum conditions (considering the four criteria used to measure slums) but remain informal in their morphology and often continue to be socially and economically disadvantaged; 2) the envelopment of traditional or indigenous villages within municipal boundaries; and 3) the informalization of formal housing. These shifts

meant that data collection support is applicable to all countries and cities and not necessarily the new countries or cities that are collecting data for the first time on slums and informal settlements.

In terms of temporal estimates, historical data trends had to also be computed for countries that starting compilation of housing and slums data in 2015, which constitutes nearly half of all countries that need to be covered globally. At the same time, the discourse on attributes for urban data disaggregation over the decade has changed with new variables introduced to ensure that no one and no spaces are left behind. Beyond urban versus rural, age, sex and intra-urban location variations, other key attributes added for urban data production include spatial analysis for slums versus non-slums, formal versus informal sectors, persons with disabilities, etc. Redesigning tools to collect these many new attributes remains a big challenge for many cities and countries and hence many global urban estimates still lack this granular data to inform the key principle of leaving no one behind.

2.4

Overview of innovative initiatives to support SDG 11 data and monitoring processes

2.4.1 The urban observatory model

The urban observatory model, which is increasingly being adopted by cities, is a key initiative which helps the collection, compilation and use of data to inform decision-making processes at different urban levels. To help find creative solutions to the urban information crisis, UN-Habitat developed the urban observatory model for urban data collection and analysis, in partnership with cities around the world. Urban observatories are well positioned to address the frequently expressed need for reliable, high-resolution urban datasets specific to the cities and immediate city-regions in which they operate.

Generally, urban observatories serve to collect and process urban data and ensure that it is utilized locally to inform decisions and policies.

Data
Indicator framework, methods & tools, analyzed data, e.t.c.

Stakeholders network
Observatory managers, data producers, e.t.c.

Data Disseminantion Platform
Website, stand alone apps etc

Observatory Support System
UN-Habitat for guidance & certification, external donors, GUO-Network

Decision Support Interface
Reports, community engagement system, feedback mechanism etc

Urban Observatory

Many urban observatories function explicitly for decision-makers who can then apply these insights in practice for urban development. As institutions whose primary role is to mobilize and monitor knowledge about one or more urban settlements across boundaries, urban observatories are now numerous and widespread enough that they present an interesting, if not to some degree unique, confluence of data and information to create knowledge on urbanization. In addition, they assist in strengthening data capacities at the national, subnational and local levels, providing platforms to facilitate effective knowledge exchange and promote evidence-based governance built on a shared knowledge base. Urban observatories consist of five major components: a stakeholder network, data, a data dissemination platform, an observatory support system and a decision support interface.

Over the last seven years, UN-Habitat has been providing systematic guidance on setting up these observatories to many countries, leading to the development of a global network of local, national and regional urban observatories. These various observatories feed into the Global Urban Observatory Network, which is a worldwide information and capacity-building network to help implement the New Urban Agenda at the national and local levels. This critical mass of urban observatories constitutes a vital asset for the monitoring and reporting of the international agendas such as the NUA and the SDGs as they lead the local level engagements on collecting, analyzing and interpretations of data for urban indicators through consultative and inclusive processes.

Today, UN-Habitat is overseeing and coordinating 387 urban observatories worldwide: 114 in Africa, 147 in Asia and 136 in Latin America in the Caribbean. These think tanks are leading the local level engagement in collecting, analysing and interpreting data for urban indicators related to the NUA and the urban SDGs through consultative and inclusive processes. UN-Habitat channels all newly developed urban monitoring tools and guides through these local urban

observatories and works with several partners to enhance the capacities of the many urban observatories that play a continuous central role in data collection and reporting on SDGs and the NUA. This critical mass of urban observatories, which collect housing indicators as a core set, constitutes a very important asset for the monitoring and reporting of the international urban agendas and was instrumental in the collection of COVID-19 data to inform local actions and responses.

2.4.2 Global and national samples of cities

The limited coverage of urban data today attests to the challenges that many countries are facing in terms of being able to collect annual data for over 72 indicators on their cities and other human settlements. As noted in the 2018 SDG 11 synthesis report, data collection across all the urban dimensions of the SDGs requires significant resources for collection and coverage of all urban areas in any country. These resources include financial outlays, institutional capacities, human resources and data aggregation skills. Only a few countries, particularly those from developed regions, have been able to collect all the data for more than 50% of SDG 11 indicators. Data collection in cities requires established structures and enough resources and well-trained staff ready to collect spatial, non-spatial and qualitative data that is sufficient to report on progress towards Goal 11. To support countries with limited resources for systematic data collection on SDG 11 indicators, UN-Habitat and other partners developed the global and national sample of cities approach. This approach has assisted selected countries to collect non-biased sample of representative data from cities and thereby being able to report consistent performance of their cities with no selection bias. Application of the national sample of cities follows a sound statistical and scientific approach based on relevant city-selection specific criteria that captures the contexts of cities, ensuring that the sample is consistent, and representative of a given country's territory, geography, size, number of cities and history.[125]

Many countries have been trained on the application of the national sample of cities and this has enabled many national statistical systems to scale up reporting of progress at the national level over the last four years.[126]

2.4.3 Global urban monitoring framework

With such a wide range of data collecting inputs available for measuring progress towards the urban dimension of the SDGs, UN-Habitat organized the Global Urban Monitoring Framework (UMF) as a harmonized set of urban indices and tools. The United Nations Statistical Commission endorsed the UMF in March 2022 for implementation as part of the Harmonized Global United Nations Systemwide Strategy for monitoring the Sustainable Development Goals, New Urban Agenda ,and other regional, national, and subnational urban programs. The framework aims at ensuring thematic integration and interlinkages among various dimensions of development, disaggregation of data and inclusion of groups that are traditionally excluded. It promotes working at different scales and functional urban areas, including ecological

functional areas, enabling city comparability and the possibility of more in-depth policy analysis. The UMF also serves as a monitoring tool for UN-Habitat's SDG Cities Flagship Programme and supports reporting through the voluntary local reviews and the preparation of urban data for the United Nations Common Country Assessments. It comprises of a set of metrics that guide stakeholders to evaluate progress of cities and urban areas by indicators, domains and city objectives, as well as against other cities globally (see structure below).

Currently, more than 20 cities are implementing the UMF directly, while an additional 40 cities are implementing it through the UN-Habitat's SDG Cities Flagship Programme (see graph below). The interest in the framework has been increasing in the past few months with over 70 cities registering their interest to implement the framework.

The framework is designed to allow adaption in its implementation, and various adaptations of the UMF at the global, thematic and city levels are ongoing, enabling over 40 cities applying the UMF to produce their local reports. Key adaptations

Domains	City Objectives			
	Safe & Peaceful	Inclusive	Resilient	Sustainable
Society	Indicators for: Safer Society	Indicators for: Inclusive Society	Indicators for: Resilient Society	Indicators for: Sustainable Society
Economy	Indicators for: Safer Economy	Indicators for: Inclusive Economy	Indicators for: Resilient Economy	Indicators for: Sustainable Economy
Environment	Indicators for: Safer Environment	Indicators for: Inclusive Environment	Indicators for: Resilient Environment	Indicators for: Sustainable Environment
Culture	Indicators for: Safer Culture	Indicators for: Inclusive Culture	Indicators for: Resilient Culture	Indicators for: Sustainable Culture
Governance and Implementation	Indicators for: Safer Governance	Indicators for: Inclusive Governance	Indicators for: Resilient Governance	Indicators for: Sustainable Governance

UMF - SDG Cities Implementation by 2022
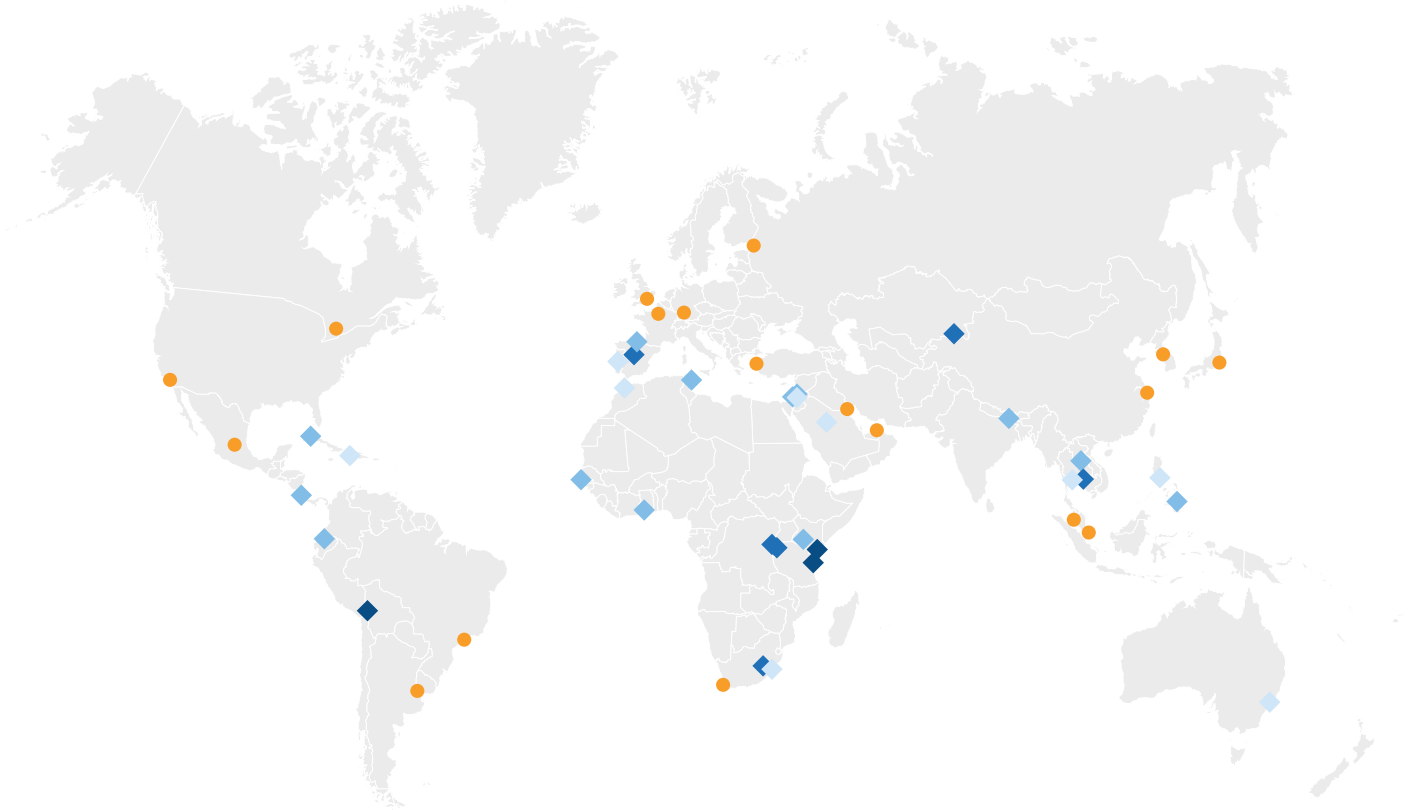
Summary for UMF and SDG Cities Implementation

SDG Cities	10	30	63
UMF	3	6	13	9

■ Full implementation   ■ Advanced implementation
■ Started implementation   □ Expressed interest
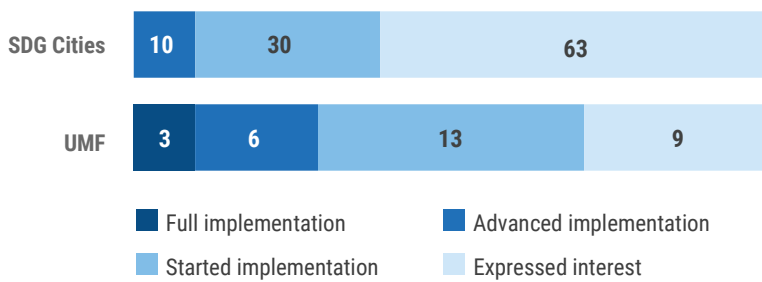
Map Legend

UMF Cities Implementation

● Cities implementing UMF through adapted frameworks
◆ Full implementation
◆ Advanced implementation
◆ Started implementation
◆ Expressed interest

The designations employed and the presentation of material on maps in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.ISBN Number: (Volume) 978-92-1-132903-2

Box 37: A review of UMF implementation: The case of Mombasa and Dar es Salaam

UN-Habitat, in collaboration with the Western Indian Ocean Marine Science Association, supported the implementation of the Global Urban Monitoring Framework (UMF) in two coastal cities, Mombasa, Kenya, and Dar es Salaam, Tanzania, between June 2022 and May 2023. As pioneer cities for applying the detailed UMF framework, these case studies provide strong insights into the processes, outputs and the value of the UMF to cities and regions.

For the two cities, UMF implementation started with the review of existing and relevant city indicators followed by data collection and standardization, data validation, generation and synthesis of findings, and integration of findings to development programmes. At the UMF adaptation stage, the stakeholders reviewed all the UMF indicators, including mapping their data availability. From both cities it emerged that while all UMF indicators were relevant for city monitoring, some indicators could not be included due to lack of data. Other relevant indicators from city development frameworks—but missing from the UMF indicators—were included in the shortlist alongside other proxy measures.

Data collection involved mixed collection approach with secondary data derived from censuses, survey, and global datasets from reliable data platforms. As many sources do not disaggregate city statistics by geography, a household survey was conducted in Mombasa to generate data at smaller administrative units. A complimentary facilities' mapping survey was carried out to map location of public facilities to assess levels of accessibility to services by geography. Mapping and spatial analysis of data collected from the field, and open data sites were carried out to generate disaggregated statistics on indicators relying on spatial data.

Assessing performance of domains and indicators against others requires data standardization. To achieve this, data scaling was done on each indicator based on benchmarks established from global datasets or contextually, mostly based on regional data ranges. This allowed aggregation and averaging of performance to identify gaps in performance at the indicator, domain, city objective and index levels. The data, findings, and recommendation were compiled into a report, and data packaged for inclusion into the cities' open data sites, the UN-Habitat's Global Indicators' Database.

The implementation for Mombasa revealed that the city has a balanced performance with governance performing slightly better than other domains, notably boosted by the existence of legal frameworks, including on gender equality, disaster risk reduction and public participation. Similarly, the implementation for Dar es Salaam revealed also a generally balanced performance with notable strengths in the society domain and weaknesses in the environment and culture domain, the study pointing to the need for intervention on the measures related inclusive and resilient city objectives.

have honed in on environmental sustainability, quality of life and child-friendly cities.

2.4.4 UN-Habitat COVID-19 Global City Tracker

The COVID-19 pandemic affected cities directly and impacted many services offered in urban areas. Lessons from the COVID-19 response can inform methods to improve SDG 11 data collection going forward. In April 2020, UN-Habitat partnered with CitiIQ to develop a COVID-19 tracker for cities off the CitiIQ platform, which has a comprehensive measurement system that scores the 35 most important elements of a city. The primary platform acquires and manages data and scoring for 4,000 global cities. The CitiIQ online digital platform was updated daily and utilized to render a score for the preparedness and response of 2,600 cities around the world.

The UN-Habitat COVID-19 Tracker was designed using a modified CitiIQ scoring logic which introduced a series of indicators, considerations and dimensions that measured the evolution of cities' response to the pandemic. The CitiIQ and UN-Habitat scoring practice involved collecting, weighting and normalizing raw city data into scores out of 100 for the different indicators. These results were then weighted and combined in different ways to inform scores for each of the considerations and dimensions. By measuring the daily impact of COVID-19 at a subnational level, the platform provided an unmatched analysis of the pandemic, essential to the global pandemic response, complementing the work of urban observatories where they existed or completely filling the gaps where no city-level data collection was occurring. Very often the pandemic permeated cities much differently than at the national level and the site provided
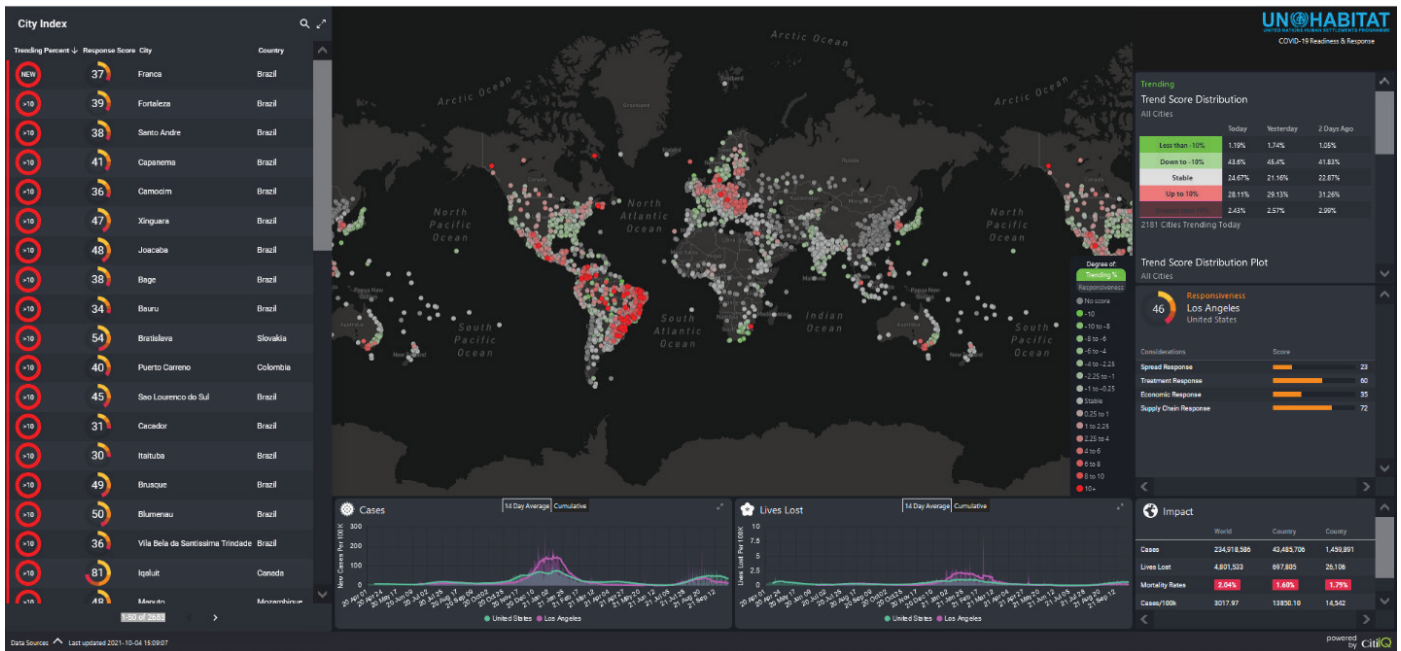
The designations employed and the presentation of material on maps in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.ISBN Number: (Volume) 978-92-1-132903-2

a valuable view for governments and regional organizations to monitor the spread and loss of life city by city.

Powered by CitiIQ, the UN-Habitat COVID-19 Tracker provided a map showing the scored cities. Colour-coding of cities in correspondence to the degree of cases trending helped highlight global and regional patterns for easy reference. The success of the UN-Habitat COVID-19 tracker for cities demonstrates the importance of measuring key global priorities at a municipal or subnational level. Plans are underway to modify this tracker to monitor the various attributes of cities defined under the Global Urban Monitoring Framework.

2.5

SDG 11 data production is promising but more needs to be done

The significant progress recorded so far on measuring the various targets of SDG 11 has come thanks to the efforts of many custodian agencies, and unique strategic partnerships developed at the global, national and city levels.

Due to the cross-cutting nature of Goal 11, no single institution can ensure that countries make significant progress towards monitoring and reporting of the urban dimensions of the SDGs. Similarly, there is no single organization that can ensure cities are effectively establishing a path of prosperity and sustainable development.

Despite the substantial progress made, there have been some global and national level challenges that have hindered the frequency with which urban data is produced and made available. COVID-19 was a major setback for SDG 11 measurement since its impacts directly affected the city fabric and functionality as well as the financial allocations dedicated to capacity strengthening for data and evidence. The post COVID-19 era is very promising since many cities have also realized the value of having functional data systems to inform decision-making with efficiency. To ensure continued availability of data on overall urban living conditions, countries and cities have increasingly committed resources and time towards building systems and capacities to monitor target SDG 11 targets. For example, censuses, demographic and health

surveys, and multiple indicator cluster surveys[127] have continued to be the main source of data to estimate urban housing performance data such as on slums and housing conditions and have been used as the source of slum estimations data for 76 countries. City level initiatives around data also exist across the world, which produce complementary data to what is extracted from the major surveys.

Capacity development is a continuous need across cities and countries and ensures that measurement methods are aligned to global reporting guidelines across the SDG framework. Since 2018, UN-Habitat and its partners have organized and conducted capacity development activities on SDG 11 for over 100 countries, including support to other urban dimensions that are covered in other goals such as Goal 1 and Goal 6, with the aim of reinforcing capacities of the relevant institutions and streamlining national statistical processes. Based on these efforts, most countries are now producing data on the SDG urban dimensions for components that go beyond SDG 11. As part of these efforts, UN-Habitat together with many custodian agencies and partners have also been supporting VLR processes including direct support for data production for cities that has facilitated the SDG localization, political engagement and improvement of data environment, with over 100 VLRs having data published on more than eight goals for the published reports.

Over the past decade, considerable data production limitations emerged in some regions such as Latin America and the Caribbean, Africa and in several other countries affected by conflicts and crisis. Many countries that were due for conducting their 2020 census cycle were affected by the conflicts and crises such as COVID-19 outbreak, which affected the data collection process. As a result, there is no new data on some urban dimensions such as slum population for the most recent years in some countries. To further advance the understanding of the urban dimensions within the SDGs and New Urban Agenda targets for cities and find better ways of cross-validating urban estimates where data is inadequate, UN-Habitat and custodian agencies have been working with partners in the earth observation and geospatial information community to develop new models for tracking urban form based on geospatial technologies and projections. This effort has enhanced the identification and characterization of informal urban form from geomorphological perspectives to validate the socioeconomic data, identify spatial inequalities and support investments towards leaving no one and no place behind. A new project funded by the European Space Agency to develop artificial intelligence models to identify spatial informality in select cities is currently underway, which will inform future methodological adaptation for slum and informal settlement monitoring.

 UN-Habitat, in its role as a focal point for sustainable urban development in the United Nations system, will continue working with all custodian agencies, regional commissions, development actors, and stakeholders, including local and regional governments, civil society, the private sector, multilateral and regional development banks, and academia, to scale up the good practices that have emerged during the last seven years to facilitate the monitoring and reporting of SDG 11 targets.

Given that cities play a vital role in achieving the SDGs, UN-Habitat and the United Nations system at large will reenergize its partnerships with local governments to set up or continue supporting existing urban observatories or local think tanks that are involved in data collection and processing for monitoring of the SDGs and fully support their capacities and efforts in strengthening the use of data, innovation and technology to influence local policy, legislation, governance, planning and design, and financing mechanisms for a better urban future.

Endnotes

[1]   See methodology used at https://unstats.un.org/sdgs/report/2020/progress-chart-2020.pdf ; For indicators 11.2.1, 11.6.1 and 11.7.1, actual value (percentage) thresholds used to determine current status include: "value >=95 - target met or almost met", "<value <95 - close to target", "50< value <=75 - moderate distance to target", "25<= value <=50 - far from target" and "value <25 - very far from target"

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03
FAST TRACKING SDG 11

OVERVIEW

The world is far off track in achieving nearly half of the targets of SDG 11, while lacking adequate data even to assess global progress toward most of the targets. Reversing this trend in fewer than seven years before 2030 requires urgent and large-scale policy interventions and investments in sustainable urbanization informed by the priorities outlined in SDG 11 and the New Urban Agenda. However, all hope is not lost. The progress observed in some areas points to a clear opportunity to turn the tide and rescue SDG 11 globally. Yet governments will need to prioritize the most effective interventions given the obvious limits to the scale and scope of their future actions amidst competing demands and resource constraints. Striking this balance is perhaps one of the central difficulties at hand for decision makers facing limited resources yet vast demands and needs arising from global urbanization, one of the mega-trends of the 21st century. Nevertheless, in an urban world, the risk of not investing in sustainable urbanization is too high.

This chapter highlights key actions that can potentially accelerate progress on specific targets of SDG 11. While it is not comprehensive in outlining the wide and complex range of interventions needed to accelerate progress, it focuses on the most strategic, high-impact responses for addressing structural and systemic bottlenecks, generating multiplier effects and optimizing returns on investment. Where possible, highlighted actions are responsive to global shifts and contexts, leverage innovation and digital technology, and draw on impactful practices and lessons to date. Furthermore, while they hold the potential to be applicable globally, these actions are ideally locally adaptable and offer possibilities for scaling up.

Importantly, given multiple interlinked drivers and risk factors related to SDG 11, policy interventions and investments specific to one target will also have crosscutting impacts on other targets. For instance, to ensure access to adequate, safe and affordable housing and basic services, while addressing

slums, it is critical to also ensure access to public transport, public space, social protection, and safety as key conditions for housing adequacy and independent living. People lacking access to adequate housing often do not just suffer from housing-related deprivations, they also tend to lack access to employment, mobility, social services, health, education, social protection, and face threats to personal security. Therefore, in addressing the multidimensional dimensions of housing inadequacy (target 1.1) in a holistic fashion through a plurality of policies, it is possible to address other targets under SDG 11.

Keeping in mind the bottlenecks to progress and illustrations of action for specific targets (Chapter 2), key strategic priority policy interventions are highlighted here to advance implementation and accelerate progress for SDG 11, drawing also on the New Urban Agenda.

> **Target 11.1**
> **By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums**

11.1.1: Proportion of urban population living in slums, informal settlements or inadequate housing

Public investment and social housing: Public investment is critical to ensuring access to affordable housing and services in markets where excess demand frequently excludes low-income populations. Government-administered social housing can in particular play an important role in providing affordable and secure housing options for low-income individuals and families. Social housing programs offer rental units at below-market rates, making them available to those who might otherwise struggle to afford decent housing. These programs furthermore often include support services, such as counseling, healthcare and education, which help residents improve their overall well-being and address some of the other cyclical challenges associated with housing insecurity and poverty. While national governments frequently administer national social housing schemes, they can be run by local governments as well, such as the highly regarded social housing programme in Vienna. By providing stable and affordable housing, social housing initiatives contribute to reducing homelessness, alleviating poverty and improving living conditions, helping to fast track both the achievement of target 11.1 and the broader goal of inclusive and sustainable cities for all.

Land-based financing tools: Land-based financing tools, including value-capture instruments, can further help facilitate public investment and accelerate progress on target 11.1 by generating funds for affordable housing and infrastructure development. UN-Habitat's report Leveraging Land: Land-based Finance for Local Governments—A Reader outlines an array of land-based finance instruments that can be employed in mobilizing financing sustainable urbanization.[3] Notable examples include land value taxes, development impact fees and land readjustment schemes, which capture a portion of the increased land value resulting from urban development. These tools are especially important in instances where a critical infrastructure project, such as the extension of basic service infrastructure to rural or slum households, may not otherwise be economically feasible for the government or private developer.[4]

Public-private partnerships: Public-private partnerships (PPPs) can also contribute to affordable housing and vital slum improvements by fostering collaboration between government entities, private developers and nonprofit organizations. Through PPPs, expertise and resources from different sectors are combined to increase the availability of affordable housing. Successful examples of PPPs, such as those in New York City and London, demonstrate the effectiveness of this approach. Furthermore, social impact investors, including impact funds, philanthropic organizations and impact-oriented financial institutions, contribute to achieving target 11.1 by providing capital for affordable housing projects and various improvement projects in informal settlements. These investors prioritize both financial returns and measurable social and environmental impact, aligning their goals with the objectives of target 11.1.

Housing credits and subsidies: Beyond partnerships and direct investments, governments can also improve access to adequate housing through various financial incentives. These include grants and subsidies that can help

reduce the financial burdens of housing (e.g. construction, purchases, improvements, rent) for low-income individuals and households. Tax credits for both developers and residents, such as the Low-Income Housing Tax Credits in the United States, can furthermore help finance and incentivize new affordable housing projects and support housing improvements.

Flexible lending and community microfinancing: Robust microfinance strategies and institutions can contribute significantly to ensuring adequate and affordable housing for low-income communities. Specialized microfinance institutions can play a crucial role by providing small-scale financial services, such as loans, savings and insurance, that enable households to invest in incremental improvements to their housing over time.[5] Community-based financing initiatives can furthermore offer benefits such as lower interest rates, longer repayment periods and flexible eligibility criteria, all of which can also support housing purchases, rentals and improvements. Together, these types of community-tailored lending initiatives can empower residents to enhance their living conditions, encourage responsible financial practices and ensure that residents' housing actions align with their evolving needs and financial capacities.

Inclusionary zoning: Inclusive or inclusionary zoning policies play a crucial role in promoting the creation of inclusive and diverse communities through the integration of affordable housing. These policies require or incentivize developers to include a certain percentage of affordable housing units in new residential developments, ensuring that affordable housing is integrated into areas with high property values and limited affordable housing options. By mandating the inclusion of affordable housing, inclusive zoning helps address housing affordability challenges and ensures that individuals from different income levels can access safe, adequate and affordable housing options and live in close proximity to essential amenities, employment opportunities and basic services.

Context-specific building regulations: Building and construction regulations can help bring adequate safety standards to houses, and ensure preservation of common open spaces and other public goods. However, not all building regulations are adequately suited for all types of neighbourhoods and settlements. Building regulations should fit the unique context and formality level of a settlement and be attentive to existing building norms within a community.[6] The application of formal rules, even when lowered in standards as commonly practiced, may not be appropriate to all kinds of informal settlement.

Local political participation: Active and broad political participation is essential to ensuring access to safe, adequate and affordable housing and basic services in all communities. Fundamentally participatory processes help ensure that local planning and development actions are responsive to the desires of all community members, including low-income, vulnerable and historically marginalized groups such as women, children, older persons and persons with disabilities. This is especially important in informal settlements, where even well-intentioned housing and upgrading projects have sometimes led the loss of community vibrancy due to a failure to consult and engage with local residents.[7] Increased participation in other local planning and upgrading processes, such as community-led data collection, mapping, construction and budgeting, can also have multiple benefits, improving project outcomes while also developing skills among local residents. Greater skillsets among community members can in turn enhance both their economic opportunities and capacities for long-term and sustainable improvements within their own communities.

In formal neighbourhoods with more institutionalized political participation, active engagement can also help ensure that the interests of the broader public are adequately reflected in planning and construction processes. One of the biggest bottlenecks to increasing housing supply in many rich countries has

been concentrated political opposition from local homeowners, known as NIMBYs (Not in My Backyard), who systematically block new housing developments in their neighbourhoods. While this preserves the value of homeowners' assets, it comes at the expense of younger and lower-income portions of the population who often struggle to find affordable housing in safe neighbourhoods with high-quality public amenities and services (e.g., schools, parks, hospitals). More recently, however, increased political mobilization has helped increase political interest and engagement on the issue of housing development. For example, the YIMBY (Yes in My Backyard) movement encourages pro-housing voices to participate in local politics and has in turn helped lead to significant housing reforms in the United States, paving the way for new affordable housing developments across the country and demonstrating the potential

A young girl plays outside newly reconstructed houses in Aceh, Indonesia. ©UN-Habitat/Veronica Wijaya

of grassroots political engagement in ensuring adequate and affordable housing for all.

Land tenure security and legal protections for inclusive housing: Legal actions play a crucial role in promoting housing rights, protecting vulnerable populations and ensuring access to justice. Tenant protection laws in particular serve as a vital safeguard for renters, preventing arbitrary eviction, discrimination and unfair rent increases. By establishing clear procedures for dispute resolution, lease agreements and the enforcement of tenant rights, these laws provide a foundation of stability and security in the rental market. Strengthening land tenure security through legal mechanisms, such as land titling or land regularization programs, furthermore helps provide both housing stability and the security necessary for investment, access to credit and housing improvements. Additionally, providing access to legal aid services can help ensure that vulnerable populations (e.g. disabled persons, social minorities) are appropriately protected in housing-related disputes and are consequently provided with fair and equitable access to adequate housing.

Infill housing developments: Infill development can help create new affordable housing options by utilizing available land within existing urban areas. This development approach maximizes the potential for sustainable, inclusive and affordable housing close to existing amenities and employment opportunities, contributing to compact, well-connected and resilient cities. Additionally, infill development can enhance urban revitalization efforts, promote social integration and create vibrant communities, helping to ensure both equitable access to adequate housing and progress on the broader goal of inclusive and sustainable cities under SDG 11.

Non-Market-based housing structures: Various housing structures that do not rely exclusively on the private market can also be useful in promoting housing affordability and community self-sufficiency. Some examples include:

- *Community land trusts:* nonprofit organizations that acquire and hold land for the purpose of providing affordable housing. They separate the ownership of the land from the ownership of the housing units, ensuring the perpetual affordability of homes for lower-income residents.

- *Housing cooperatives,* which enable residents to collectively own and manage their housing units, allowing for shared decision-making, resource pooling and affordable financing. The cooperative model promotes community cohesion and resident involvement in housing matters.

- *Self-help housing programs,* such as those facilitated by organizations like Habitat for Humanity, which engage lower-income individuals and families in contributing labour to construct their own homes. These programmes not only provide affordable housing options, but also foster community engagement, self-sufficiency and a sense of pride and ownership.

Green building design: Climate change has displaced millions of people around the world and will continue to affect the number of people with access to safe and adequate housing in the coming decades. Reducing the impacts of climate change (and other related drivers of displacement, such as famine and conflict) is therefore crucial to ensuring access to safe, adequate and affordable housing for potentially billions[8] of people across the globe. As one of the largest contributors to global greenhouse gas emissions, the building sector presents a substantial opportunity for both climate mitigation and adaptation. Green-building measures such as the use of locally sourced, sustainable construction materials (e.g. wood, clay bricks) and energy-efficient and disaster-resilient designs and retrofits can thus have a substantial impact on both climate mitigation and adaptation, ultimately helping to ensure long-term access to safe and adequate housing across the globe.

Housing at the centre: The "housing at the centre" approach is of paramount importance as it recognizes that housing is not just a basic need but a fundamental human right and cornerstone of many development priorities. Placing housing at the centre of policies and strategies ensures that adequate, affordable and secure housing is prioritized in the pursuit of sustainable development. By adopting this approach, governments, organizations and communities can work together to address housing challenges, promote social inclusion and ultimately create thriving and equitable societies for all.

Housing first: "Housing first" is an approach in developed countries to addressing homelessness that prioritizes providing stable and permanent housing as the first step, without requiring individuals to meet strict criteria or conditions related to sobriety, mental health treatment, or other preconditions. The core principle of housing First is that having a safe and stable place to live is essential for individuals to address other challenges they may face, such as mental health issues, substance abuse, or unemployment. The housing first approach has been widely recognized in developed countries as an effective strategy for addressing chronic homelessness, as it has demonstrated positive outcomes in terms of housing retention, improved health and well-being, reduced hospitalization and incarceration rates, and cost savings to communities. By recognizing housing as a fundamental human right and prioritizing stable housing as the initial intervention, housing first seeks to break the cycle of homelessness and provide a foundation for individuals to rebuild their lives. In developing countries, such an approach may not be suitable, especially as the lack of decent employment in these contexts is pressing.

> **Target 11.2**
> **By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.**

11.2.1: Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities.

Sustainable urban mobility plans: Integrated planning approaches which consider both transportation and land use can significantly improve spatial access to sustainable transport systems. Governments should establish and implement an institutional framework with responsible entities like metropolitan transport authorities for coordinating an integrated urban public transport system, especially when different modes of transport are owned and operated by different local authorities and cross jurisdictional boundaries. Policies related to transportation, urban planning, economic development, the environment, accessibility and public health need to be integrated and coordinated across different government departments, as well as fully address accessibility and equity. Sustainable urban mobility plans ensure that transportation services are available, affordable and accessible for all, including for older persons and persons with disabilities.

Multi-modal transport and green freight: Prioritizing investment in multi-modal public transport, integrated with walking and cycling, is essential for resilient local economic development. Governments should identify innovative financing mechanisms such as carbon taxation and land-value capture, to reinvest into sustainable mobility. Integration of green freight solutions in urban planning and infrastructure design that limits cargo through traffic in cities, is key to facilitate smooth transport of cargo traffic. Governments should also actively seek partnerships to leverage public and private funding sources, enhancing the economic and social impacts of the investments.

Transit-oriented development (TOD) policies: TOD policies that promote compact, mixed-use and walkable communities around public transport stations and corridors can substantially improve access to sustainable transportation systems and have numerous cross-cutting environmental, economic and health benefits for communities. Policies which specifically focus on last-mile connectivity to and from stations and stops can substantially reduce carbon emissions and even promote increased economic activity by encouraging greater walking. TOD can create vibrant and liveable neighborhoods that are well-connected to public transport, reducing the dependence on cars and promoting active transportation options and access to opportunity. This combination can lead to increased economic activity; improved access to jobs, housing, and services; and enhanced quality of life for residents.

Technology-based solutions and zero carbon mobility: Governments should embrace financial incentives and regulatory frameworks for new and innovative technologies while protecting digital rights. Investments in intelligent transport systems, smart ticketing and smart mobility solutions, electric mobility powered by renewable energy, and data-driven solutions will improve the convenience, accessibility, efficiency, safety and sustainability of transportation systems.

These adoptions may include investing in electric charging infrastructure, promoting electric public transport and shared e-mobility options, and using data analytics to optimize the transportation planning process, mobility services, and transport management. Promoting electric and zero-carbon mobility in the context of better urban planning and shared mobility can help reduce greenhouse gas emissions, improve air quality and create more sustainable and liveable cities for a greener urban future, all while making best use of ever more robust urban and transport data increasingly becoming available with advancements in ICT.

Integrating informal transport systems: Informal transport systems exist alongside or instead of formal or public transport systems. They play a fundamental role in filling the existing gaps in urban areas, which are not connected to a formal public transport network. However, the informal transport sector faces pollution issues because vehicles are not regularly replaced or maintained and the operational models lead to dire road safety risks. Informal transport networks should be fostered and integrated into future transport planning, with adequate provisions to support improvements in the regulatory and operational environment to ensure better quality of service. Combining formal and informal transport provision may be effective. Informal transport networks can link urban dwellers living in underserved areas to public transport hubs, avoiding the need to expand public infrastructure networks and building on what already exists.

Bus Rapid Transport in Dar es Salaam, Tanzania © UN-Habitat/Julius Mwelu

Target 11.3
By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.

11.3.1: Ratio of land consumption rate to population growth rate.

Developing compact cities with adequate infrastructure: Compact urban design can play an important role in sustainable urban development. Smaller footprints allow for more efficient land use and lower per-capita infrastructure costs. Shorter distances between homes and other developments similarly enable more efficient transportation and service provision, increasing economic productivity and access to resources, while reducing environmental harms such as pollution and greenhouse gas emissions.

Maximizing the use of existing urban land is an essential part of compact design. Infill development on previously used "brownfield" sites can help prevent unnecessary urban sprawl and many of its negative impacts, such as inefficient land use and the loss of green spaces along the urban periphery. Regulations which promote high density and vertical developments can similarly prevent sprawl and increase land-use efficiency in urban areas.

As mentioned in Chapter 2, however, there is no universally ideal land-consumption to population-growth ratio. Compact development can lead to improved economic, social and environmental outcomes, such as more efficient service provision and reduced emissions. However, without adequate plannning for structural and service improvements, increased density can put cities at risk of informalization and lower living standards. It is thus vital that compact developments are accompanied by

careful planning and provisions for improved service delivery and density accommodation.

Planning for sustainable urban expansion: In cases where cities may lack the capacity to increase density with adequate service provisions, it is important that governments adequately plan for urban territorial expansion. Clear boundaries should be set to ensure that urban expansion occurs at a pace that can be matched by expansion in urban basic services. Investing in both legal enforcement capacity of these boundaries and adequate structural and service provisions can help prevent the uncontrolled expansion of informal settlements, protect green spaces and ensure sustainable and inclusive urbanization.

Metropolitan-level governance and coordination: As noted in the 2022 World Cities Report, future urban areas are projected to grow far beyond the boundaries of any particular jurisdiction, which necessitates new and adaptable urban governance and management frameworks.[9] Metropolitan governance with institutionalized frameworks has a demonstrated ability to optimize coordination, engage secondary and rural communities, and create collaborative approaches in mitigation, adaptation and recovery efforts. The future of metropolitan governance, however, is plural: there is no single metropolitan model of governance that works everywhere. Metropolitan governance needs to have adequate political and institutional legitimacy, clearly defined roles and need capacity and resources that meet their responsibilities.

11.3.2: Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically

Building trust and legitimacy of institutions: As cities become larger and the distance between governments and citizens increases, building trust in government institutions is even more crucial to ensuring active public participation in urban planning and management[iii]. Direct lines of communication, strong accountability mechanisms and meaningful participation opportunities, such as those provided by programmes for youth, older persons, and people from marginalized communities, can both empower citizens and help promote public trust in government institutions and processes. Governments should furthermore leverage both digital and physical platforms, such as websites and forums, to ensure maximum transparency of all government activities to both build institutional trust and foster greater participation in planning activities among all citizens.

Establishing legislative mandates: Legislation is an effective tool to require governments at all scales to engage in participation and stakeholder engagement activities for planning, implementation, monitoring and evaluation processes. Although legislation with the sole requirement of compliance does not ensure the quality of the participatory process, it can provide a foundation for greater public engagement and participation. This legislation should complement participation mandates with sufficient funding for civic education programmes on topics such as urban planning and finances to enable both regular and high-quality public participation.

Stakeholder co-production: Cities are produced through the intersection of different actors and service delivery benefits from forms of shared ownership and joint knowledge production. In the context of service delivery, co-production reflects the logic that municipal services are more effective and just when both public actors and citizen groups are involved. Accordingly, urban governance involves a plurality of public and private stakeholders, and should be cross-sectoral, including private companies, civil society, community associations, local residents, and representative organizations of youth, older persons, women, and persons with disabilities, to name a few.

Community living labs: Cities are not sterile places to conduct experiments. Rather, changes to the built environment or social policy create, in effect, living labs. Where needs are greatest, local authorities can continuously identify conditions and spaces that enable civil society to play a transformational role in cities, including the possibility of setting up intentional living labs. Their establishment may often signal the presence of hot spots for civic innovation while also, at least on some occasions, providing an opportunity for supporting self-organized communities to debate and contribute to the issues at hand. When set up in this way, civil society can wield practical influence and offer citizen-informed solutions to urban problems that enhance social and community resilience as well as generate improvements in service delivery.

Box: Our City Plans Toolbox presents opportunities for inclusive and participatory planning for cities

Our City Plans Toolbox, a digital platform launched by UN-Habitat in 2022, is a comprehensive step-by-step tool to develop inclusive, participatory and incremental planning process, steered toward putting people at the centre and leaving no place and no one behind. Setting up an inclusive participation framework is the core of the Our City Plans Methodology, which, by itself, is an important step to move towards a large-scale adoption and implementation of sustainable and inclusive planning processes in small and intermediate cities. The digital format allows for a more user-friendly and flexible approach that can be adapted to the local context and challenges of cities, as well as to the planning objectives and available resources.

Our City Plans platform aims to create a direct point of contact between UN-Habitat planning experts and urban planning actors and seeks to collaborate with institutions around the world and support them in incorporating the methodology into their urban planning processes.

The toolbox recognizes the importance of defining a process framework rather than a design framework in urban planning. It is incremental and flexible, as it allows planners, city leaders and other stakeholders to tailor their planning process according to their context. They can choose whether to run the entire process or focus only on specific outputs, depending on their scope, resources and priorities. Additionally, as blocks and activities are modular, they can be selected and saved according to the local conditions and available resources, creating simplified or more comprehensive paths. Various activities can be conducted independently or simultaneously with others, depending on the expertise of the technical team and the availability of time and resources.

Target 11.4
Strengthen efforts to protect and safeguard the world's cultural and natural heritage

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11.4.1: Total per capita expenditure on the preservation, protection and conservation of all cultural and natural heritage, by source of funding (public, private), type of heritage (cultural, natural) and level of government (national, regional, and local/municipal)

Linking heritage and the urban economy:
Substantial synergies exist between the preservation of urban heritage and the vitality of the urban economy. Both natural and cultural heritage attract hundreds of millions of tourists to cities each year, supporting a variety of jobs and local revenue streams for the city. Conservation and maintenance of heritage sites in particular support the growth of skilled jobs such as craftspeople and naturalists while also contributing to the preservation of traditional skills and art forms. Revenues generated from tourism and related activities can furthermore be reinvested into the preservation of natural and cultural heritage, establishing a virtuous cycle of conservation and urban economic development.

Creative industries and cultural activities
such as food, art and music are also deeply intertwined with urban tourism and can contribute substantially to the urban economy. Cities can support such creative industries through various integrated planning and development policies. These include providing emerging artists, entrepreneurs and craftspeople with affordable housing and workspaces through public developments, subsidies and other interventions described under Target 11.1 of this chapter. Creative industries furthermore thrive in walkable, mixed-use and transit-oriented neighbourhoods, indicating cross-cutting benefits with interventions outlined earlier in this chapter under Target 11.2 and Indicator 11.3.1.

Gamcheon culture village at Busan city south Korea © Shutterstock

Engaging and educating communities on cultural preservation: Educating community members about local cultural assets can foster a sense of value of cultural and natural heritage preservation. The more people value their heritage, the more likely they are to support funding for its preservation. Heritage sites and cultural institutions like museums, libraries, and cultural centers can serve as hubs for learning, innovation and creativity. They can also raise awareness about the importance of sustainability and the role of heritage in achieving it. Developing programmes that encourage local community involvement in heritage preservation can similarly help establish a sense of ownership among local people, leading to increased voluntary contributions and more sustainable conservation efforts.

Preservation and urban regeneration: Culture and heritage are key elements in creating distinctive, attractive urban spaces. This can increase property values, stimulate investment, and foster regeneration in economically disadvantaged areas. The adaptive reuse of heritage buildings can also contribute to urban revitalization while preserving a city's historical character. Economic revitalization can, however, lead to displacement of low-income residents from neighbourhoods if not properly managed. Cities must therefore take actions to ensure that cultural preservation and urban regeneration occur in an inclusive manner and leave no one behind.

Building resilience and sustainability through traditional practices and preservation: Traditional knowledge embodied in culture can offer benefits for sustainability in urban environments. Using traditional building practices and materials, for example, can often produce buildings with lower carbon footprints and greater resilience to environmental shocks. Preservation and adaptive reuse of historical buildings can similarly reduce the need for new construction and the associated consumption of energy and resources. Natural heritage, including urban green spaces, can furthermore contribute to environmental health by absorbing carbon dioxide, reducing heat island effects, and promoting biodiversity.

Integrating heritage and urban planning: In many cities, particularly in developing countries, heritage buildings, traditional neighbourhoods and significant cultural landscapes are threatened by financial pressures that lead to redevelopment. Cities can develop heritage strategies that lay out which areas can be redeveloped under what conditions, and what the rules for redevelopment should be. Such strategies are more effective when integrated with flexible planning policies that can, for example, provide exemptions to certain building regulations or allow for transferable floor area ratios (also known as transfer of development rights) in certain districts to disincentivize redevelopment while still compensating landowners."

Target 11.5

By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

11.5.1: Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population

11.5.2: Direct economic loss attributed to disasters in relation to global domestic product (GDP)

11.5.3: (a) Damage to critical infrastructure and (b) number of disruptions to basic services, attributed to disasters

Mainstream urban resilience capacities: Proactive climate change, vulnerability and disaster risk reduction and pandemic response policies cannot be undertaken as add-ons to other work or concentrated in one specific department, but rather must be incorporated into the annual and multiyear workplans and design standards of all departments. In turn, this requires effective forward-looking design and planning frameworks that factor in local forecasts of future climatic, environmental and public health conditions so that infrastructure, buildings and services are built or retrofitted to appropriate standards, including accessibility standards, to withstand best estimates of conditions that will prevail over the coming decades.

Rescue Service assorted debris after floods © Shutterstock

Target 11.6
By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

11.6.1: Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities

Waste management infrastructure investments: Robust investments in waste management infrastructure are essential to ensuring the proper collection, treatment and disposal of municipal solid waste in cities. These investments include the development of waste collection systems, transfer stations, recycling facilities and controlled disposal sites. Adequate infrastructure enables cities to manage waste effectively, reducing the adverse environmental impact of cities and promoting sustainable development. It allows for the implementation of proper waste segregation, recycling and disposal practices, ensuring that a higher proportion of waste is managed in controlled facilities. By improving waste management infrastructure, cities can mitigate pollution, protect public health and create a cleaner and more sustainable urban environment for all.

Waste collection systems: Effective waste collection systems are crucial to ensuring that municipal solid waste is collected efficiently and on a regular basis. By implementing well-designed waste collection systems, cities can prevent the accumulation of waste in public spaces, which can have adverse environmental and health impacts. Efficient waste collection helps to maintain cleanliness, improve air quality and reduce the risk of pollution and disease transmission. It also facilitates the segregation of recyclable materials, allowing for their proper processing and reuse. Moreover, effective waste collection systems contribute to reducing illegal dumping and uncontrolled waste disposal, ensuring that a higher proportion of municipal waste is managed in controlled facilities. By prioritizing and investing in effective waste collection systems, cities can enhance their waste management practices, promote sustainable urban development and create healthier and more liveable environments for their residents.

London's segregated CS6 cycle superhighway on Blackfriars Bridge, London, England, UK © Shutterstock.

Extended producer responsibility systems:
Extended producer responsibility (EPR) systems can play an important role in achieving target 11.6 by helping to address the environmental impacts of products throughout their lifecycles and change the unsustainable production and consumption patterns of today. By holding producers accountable for the whole cycle of their products, EPR systems shift the responsibility and financial burden of waste management from local governments and taxpayers to the producers themselves. In addition, through mandatory contributions, producers are required to financially support the collection, recycling and proper disposal of their products. This framework ensures a stable and predictable source of funding for municipal solid waste management systems, enabling more effective waste management practices. The ongoing discussions on a global instrument for plastic pollution and the prospective plastic treaty offer a significant opportunity to encourage the adoption of mandatory EPR systems. By unlocking financial resources from the private sector, EPR systems contribute to the sustainable management of municipal solid waste and facilitate the transition towards a more circular and environmentally responsible economy.

Public engagement and awareness campaigns: The active engagement of the public and their increased awareness regarding proper waste management practices can play an important role in achieving target 11.6. It is crucial to conduct comprehensive public awareness campaigns, educating residents about the significance of waste reduction, proper waste management practices and the benefits of recycling. By instilling a sense of environmental responsibility, communities can actively participate in waste management initiatives. Encouraging citizen involvement through activities like cleanup drives, waste management workshops and citizen-led projects empowers individuals to take ownership of their waste disposal habits. Through these collective efforts, cities can foster a culture of sustainable waste management and promote a cleaner, healthier and more sustainable urban environment.

UN-Habitat working with city officials to improve land management in Medellín, Colombia. 2012 © UN-Habitat / A.Padrós

Proper disposal and treatment methods:
Establishing controlled facilities, including sanitary landfills and waste treatment plants, is crucial to ensuring the proper disposal and treatment of non-recyclable waste. Furthermore, effective waste management techniques, such as landfill gas capture systems, waste-to-energy plants and leachate treatment facilities, can help cities minimize environmental pollution and mitigate the adverse impact of waste disposal. These facilities and techniques are instrumental in preventing the contamination of soil, water and air, thus safeguarding public health and contributing to the overall sustainability of cities. Effective carbon credit and financing schemes can furthermore help fund the creation of these facilities. By prioritizing proper disposal and treatment methods, cities can effectively manage waste and work towards reducing their adverse per capita environmental impact, in line with SDG target 11.6.

Stakeholder partnerships: Stakeholder partnerships can play a crucial role in achieving target 11.6. By fostering collaboration and partnerships with various stakeholders, such as government agencies, private sector entities, community organizations and waste management experts, cities can leverage a diverse range of resources, expertise and innovation. These partnerships provide opportunities to pool knowledge, share best practices and collectively address the challenges associated with waste management. Moreover, establishing partnerships with international organizations can offer valuable technical assistance and funding opportunities, enabling cities to enhance their waste management initiatives. By engaging stakeholders and working together, cities can effectively tackle the adverse environmental impact of waste, promote sustainable practices, and create cleaner and more resilient urban environments for all.

Data collection, monitoring and reporting systems: Implementing a robust monitoring and reporting system can allow cities to effectively track the proportion of municipal solid waste collected and managed in controlled facilities (indicator 11.6.1). This method involves tracking data on waste generation, collection rates and the percentage of waste managed in controlled facilities on a regular basis. The availability of accurate and up-to-date data enables cities to identify areas for improvement, measure progress and make informed decisions based on evidence. Monitoring and reporting provide valuable insights into the effectiveness of waste management initiatives and help in identifying successful practices that can be replicated. By continuously monitoring and reporting on waste management indicators, cities can enhance their strategies, optimize resource allocation and work towards reducing the adverse environmental impact of waste, thereby advancing sustainable development.

11.6.2: Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)

Emissions regulations and clean technologies: The role of emission regulations is crucial in reducing the adverse impact of cities on air quality. Enforcing strict regulations and standards on industrial emissions, vehicle emissions and other major sources of air pollution is essential. By implementing robust emission regulations, cities can control and limit the release of harmful pollutants into the atmosphere. These controls include setting emission limits, establishing stringent monitoring and enforcement mechanisms, and promoting the use of cleaner technologies such as low-emission vehicles and renewable energy sources. Such regulations create a framework for industries, vehicles and other pollution sources to operate in an environmentally responsible manner, contributing to improved air quality and the overall sustainability of cities.

Clean household energy sources: Promoting cleaner household energy sources is crucial for mitigating both indoor and outdoor air pollution and improving air quality in the city. Encouraging the transition from traditional solid fuel usage to cleaner cooking and heating technologies, such as clean cookstoves and renewable energy options, is essential. Governments and relevant stakeholders should provide support and incentives to households to adopt these cleaner energy sources. By doing so, cities can effectively reduce the emission of harmful pollutants, improve indoor air quality and contribute to overall environmental sustainability.

Planning for non-motorized transport: Urban planning and public transportation play a crucial role in achieving target 11.6 by addressing air quality and reducing the adverse environmental impact of cities. Enhancing public transportation and promoting active mobility are key strategies for achieving this target. Cities should prioritize investments in sustainable transportation

infrastructure, such as high-quality mass transit, efficient bus networks and cycling lanes, to encourage the use of public transportation and reduce reliance on individual vehicles. This approach helps to alleviate traffic congestion and mitigate air pollution. Such sustainable transport infrastructure works more effectively if it connects different land uses like residential, commercial and educational, as well as public space and green spaces. Non-motorized transport is also easier to adopt when supported by urban planning strategies that minimize the need for vehicular travel and slow urban sprawl, instead prioritizing walkability, bikeability and accessibility. Increasing the presence of green spaces, parks and tree cover in cities not only enhances the aesthetics of urban areas but also contributes to improved air quality and overall environmental sustainability.

International cooperation and knowledge sharing: Strengthening collaboration among cities, national governments, international organizations and relevant stakeholders is essential for sharing best practices, technological advancements and successful policies. Through

knowledge sharing, cities can learn from each other's experiences and accelerate progress in reducing particulate matter levels. Fostering international cooperation and leveraging resources is critical for addressing regional air pollution challenges, which require cohesive policies and action to work towards common goals and address transboundary air pollution. This collaborative approach promotes innovation, enables the exchange of expertise and facilitates the adoption of effective strategies to improve air quality and create sustainable urban environments worldwide.

Data collection, monitoring and reporting: The regular collection of data from reference-grade instruments is crucial for monitoring trends in air pollution and evaluating the impact of policies and interventions. This data should be reported publicly to enable health impacts research and increase community awareness. Analysis and integration of this data into air quality forecasting is important for understanding the impact of sectoral emissions on air quality and to project the impact of sectoral interventions on future progress.

Electric car charging stations near Indian parliament house in New Delhi, India © Shutterstock

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Target 11.7
By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

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11.7.1: Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities

Urban greening initiatives: Urban greening initiatives can help to enhance the availability and quality of open spaces within cities. Initiatives such as the development of parks, gardens and recreational areas can provide city residents with accessible and inviting spaces for various activities and contribute to enhanced liveability of urban environments. These urban green spaces in turn offer opportunities for physical activity, relaxation and social interaction, benefiting both the physical and mental health of residents. Parks can furthermore contribute to biodiversity conservation, mitigate urban heat island effect and help improve air quality by absorbing pollutants. Although providing green spaces can also contribute to gentrification and neighbourhood unaffordability, grounding greening initiatives in the principle of equal access can help ensure that peoples of all ages, genders, gender identities and abilities can enjoy the benefits of public open spaces equally.

Land pooling, readjustment and reblocking: In cities and neighbourhoods with limited or dispersed public open space, a range of land sharing policies are available that can help consolidate and increase the amount of public space. Practices of land pooling, land readjustment and reblocking are variations of the policies in which adjacent land parcels are combined, realigned and redesigned to generate a more cohesive public space network. They may also involve converting private land into public land through forms of compensation to residents

and landowners. Such practices must always be grounded in participatory engagement.

Inclusive design: Inclusive design plays a crucial role in achieving target 11.7 by ensuring that open spaces are designed and developed in consideration of the needs of different demographic groups, including people of all genders, gender identities, ages and abilities. Features such as accessible pathways, seating areas and play facilities should be incorporated to accommodate the diverse requirements of individuals and promote equal access and enjoyment of public spaces open for or provided to the public.

Collaboration and community engagement: Fostering collaborations between various stakeholders, including local governments, community organizations, private sector entities and nonprofit organizations, enables cities to leverage their collective resources, expertise and innovation to develop and maintain open spaces. These partnerships enable sustainable management, regular maintenance and programming of open spaces, thus ensuring their long-term viability and functionality. By working together, stakeholders can pool their knowledge and capabilities, leading to more effective and inclusive open space initiatives that cater to the needs and aspirations of the community. Collaborations and partnerships create synergistic relationships that promote shared responsibility and collective action, fostering vibrant and accessible open spaces that contribute to the well-being and quality of life in cities.

Community engagement in the planning and design process similarly helps cities ensure that open spaces meet the specific needs and preferences of residents. Encouraging participatory processes

that engage different groups in all stages of the planning process enables a more comprehensive understanding of community needs and desires. Such participation empowers residents to contribute to decision-making processes and ensures that open spaces are valued and well-utilized by the community. By embracing inclusive design and fostering community engagement, cities can create open spaces that are truly inclusive, welcoming and beneficial to all.

Multifunctional spaces: Creating multifunctional open spaces helps cities provide versatile environments that cater to various purposes and activities. These spaces can be designed to accommodate recreational activities, cultural events, community gatherings and ecological conservation initiatives. Embracing a multifunctional approach maximizes the benefits derived from open spaces, making them more valuable and accessible for a wider range of users. This approach encourages active engagement and participation from diverse groups within the community, thus enhancing social cohesion, cultural enrichment and environmental sustainability. Multifunctional spaces contribute to creating vibrant and inclusive urban environments that meet the diverse needs and aspirations of city residents. Critically, multifunctional spaces need to be created in all neighbourhoods according to the particular needs of each, ensuring that no one and no territory are left behind.

11.7.2: Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months

Implementation and enforcement of anti-harassment policies: Implementing and enforcing clear policies and regulations, including through national legislation, can help cities effectively address sexual harassment in public spaces. These policies should define the various behaviors that constitute harassment and establish appropriate consequences for offenders. Ensuring that these policies are effectively enforced is crucial to send a strong message that harassment will not be tolerated. Equally important is creating an environment where victims feel safe and empowered to report incidents. By providing clear avenues for reporting and support, cities can foster a culture of accountability and create an atmosphere where individuals are protected from harassment in public spaces.

Improved public safety infrastructure: Improving lighting and other infrastructure in public areas can help cities enhance the physical environment and promote safety. Well-lit spaces with adequate visibility and minimal visual obstructions (e.g. bushes, tunnels) can help deter harassment and create a sense of security for individuals. Additionally, designing public spaces

with clear pathways, surveillance systems and emergency assistance points can contribute to a safer and more accessible environment. Allowing public transport operators to make stops upon request offers a safer option for riders uncomfortable walking at night These features not only enhance the overall experience of public spaces but also play a significant role in preventing and addressing incidents of sexual harassment and violence.

Accessible and confidential reporting mechanisms: Establishing accessible and confidential reporting mechanisms is essential for victims to report incidents of sexual harassment. By ensuring that victims have multiple channels to report, such as helplines, online platforms or designated reporting centers, cities can encourage individuals to come forward and seek support. These reporting mechanisms should prioritize confidentiality and provide necessary support services and legal assistance to victims, facilitating their recovery and empowering them to seek justice. By strengthening reporting mechanisms, cities can create an environment where victims feel supported and empowered, ultimately contributing to safer and more inclusive public spaces.

Education campaigns and community engagement: Education campaigns and community engagement both play crucial roles in creating safe and inclusive public spaces. To raise awareness, cities should develop comprehensive campaigns that educate the public about respectful behaviour and the consequences of harassment. These campaigns

should be tailored to different age groups, genders, gender identities and disability statuses in order to foster a culture of respect and empathy. Additionally, enhancing community engagement is essential. By involving residents, especially those from marginalized groups, in the design and management of public spaces, cities can foster a sense of ownership and safety. Community-led initiatives, such as neighborhood watch programs, women's safety committees and accessibility audits, contribute to a safer and more inclusive environment. By combining education campaigns with community engagement, cities can empower individuals, build solidarity and create public spaces that are welcoming and free from harassment.

Research and data collection: It is essential to invest in research and data collection to gain a deeper understanding of the prevalence, patterns and underlying factors contributing to harassment in different contexts. By conducting thorough research, cities can identify the specific challenges and vulnerabilities faced by different groups, such as women, children, older persons and persons with disabilities. This information provides a solid foundation for evidence-based interventions and policies aimed at effectively addressing harassment. It enables policymakers to design targeted strategies and allocate resources where they are most needed. By combining education research and data collection, cities can develop comprehensive approaches to prevent and respond to harassment, fostering safer and more inclusive public spaces for everyone.

Target 11.a
Support positive economic, social and environmental links between urban, per-urban and rural areas by strengthening national and regional development planning

11.a.1: Number of countries that have national urban policies or regional development plans that (a) respond to population dynamics; (b) ensure balanced territorial development; and (c) increase local fiscal space

National urban policies: Encouraging countries to develop and implement comprehensive national urban policies is paramount to achieving target 11.a and addressing key aspects of sustainable urbanization and regional development. NUPs should be designed to respond to population dynamics, taking into account factors such as population growth, migration patterns and demographic changes. They should also promote balanced territorial development, ensuring that urban, peri-urban and rural areas receive equitable attention and investment. Furthermore, national urban policies should prioritize the integration of economic, social and environmental considerations to foster sustainable development. By aligning NUPs with these principles, countries can create frameworks that support positive economic, social and environmental links between urban and rural areas. These urban-rural linkages reduce growing territorial inequalities, leading to more inclusive and resilient cities and regions.

Enhanced regional development planning: Fostering collaboration between national, regional and local authorities is indispensable to enhancing the effectiveness of development plans. Aligning regional development plans with national urban policies can furthermore help promote coordinated and integrated development across urban, peri-urban and rural areas. These plans should be tailored to the specific needs and characteristics of each region, which requires the active involvement of subnational governments in the process to ensure that resources and investments are allocated strategically. By fostering collaboration and coordination, regional development planning can help optimize the use of resources, promote balanced territorial development, and support the positive economic, social, and environmental links between urban and rural areas to ensure that no region is left behind in the development process.

Strengthened governance and institutional capacity: Strengthening the effectiveness of governance structures and building institutional capacities at the national, regional and local levels is the only way enhancing linkages across the urban-rural continuum will be possible. Building effective governance includes establishing clear roles and responsibilities and promoting multi-stakeholder participation in decision-making processes, as well as strengthening coordination mechanisms grounded on the subsidiarity principle. By improving decentralization, multilevel governance and institutional capacities, countries can effectively implement national urban policies and regional development plans. When successful, these plans enable better coordination and collaboration among various stakeholders, leading to more efficient and sustainable urban and regional development. They also enhance transparency, accountability and inclusivity in decision-making processes while ensuring that the rights, needs and aspirations of all stakeholders and population groups are considered. Strengthening effective multilevel governance and institutional capacities, based on empowered subnational governments and enhanced stakeholder participation, is

essential for creating an enabling environment that supports positive economic, social and environmental links between urban, peri-urban and rural areas.

Sustainable financing mechanisms: Promoting sustainable financing mechanisms is essential for achieving target 11.a. Effective mechanisms encourage countries to explore innovative approaches to increase local fiscal space for urban and regional development. Subnational financing structures are an important arena where alternative financing mechanisms such as public-private partnerships, municipal bonds and revenue-sharing mechanisms, including equalization funds, can be deployed to ensure no territory is left behind. These approaches can generate additional funding for infrastructure projects and service delivery in both urban and rural areas. By diversifying funding sources and leveraging private sector participation, as well as civil society co-creation, sustainable financing mechanisms contribute to the realization of balanced territorial development and the implementation of national urban policies. They help address the financial challenges associated with urbanization and regional development, ensuring the availability of resources to support economic, social and environmental initiatives. Ultimately, sustainable financing mechanisms play

a crucial role in driving positive economic, social and environmental links between urban, peri-urban and rural areas, enabling comprehensive and inclusive urban and regional development.

Knowledge sharing and collaboration: Establishing platforms and mechanisms that facilitate the exchange of best practices, experiences and lessons learned in urban and regional development planning is crucial in achieving target 11.a. By promoting knowledge sharing among countries, regions and cities, valuable insights and innovative approaches can be shared to enhance planning processes and strategies. This can be accomplished through the establishment or strengthening of regional and international networks, forums,and platforms that encourage peer-to-peer learning and technical assistance. Collaborative initiatives enable countries to benefit from each other's successes and challenges, leading to more effective and context-specific urban policies and regional development plans. By leveraging collective knowledge and expertise, knowledge sharing and collaboration contribute to the creation of sustainable and inclusive urban environments, fostering positive economic, social and environmental links between urban, peri-urban and rural areas.

> **Target 11.b**
>
> **By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels**

11.b.1: Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030

Strong institutional capacity: Strengthening institutional capacity is vital for achieving target 11.b as it enables governments to effectively implement disaster risk reduction measures. To achieve this outcome, governments should prioritize investments in building and enhancing the capacity of relevant government agencies responsible for disaster management. This effort includes providing adequate resources, training programmes and technical support to equip these agencies with the necessary expertise, tools and frameworks. By bolstering their capacity, these agencies can develop and implement effective national strategies aligned with the Sendai Framework. Additionally, strong institutional capacity enables efficient coordination, collaboration and decision-making, ensuring a comprehensive and well-coordinated approach to disaster risk reduction at all levels.

Multisector collaboration: Promoting multisectoral collaboration plays a crucial role in achieving target 11.b as it recognizes that disaster risk reduction requires the involvement of various government ministries, departments and agencies. Governments should foster collaboration and coordination among these entities to develop integrated strategies that address the diverse aspects of disaster risk.

By engaging key sectors such as agriculture, infrastructure, health, education and finance, comprehensive risk reduction efforts can be implemented. This collaborative approach ensures that different sectors contribute their unique expertise and resources towards reducing disaster risks and building resilience. It enables a holistic understanding of the interdependencies between sectors and facilitates the development of strategies that consider the interconnected nature of risks and their impacts. Through multisectoral collaboration, governments can foster innovation, knowledge sharing, and joint problem solving, leading to more effective and sustainable disaster risk reduction outcomes.

Enhanced data collection and analysis: Enhanced data collection and analysis provide an essential foundation for effective disaster risk reduction planning. Governments should prioritize investing in robust data collection and analysis systems to gather accurate and up-to-date information on various aspects of disaster risk. This includes assessing the vulnerability of different regions, understanding hazard patterns and tracking progress in reducing disaster risk. By collecting and analyzing comprehensive data, governments can gain insights into the underlying factors contributing to risk and identify areas that require immediate attention. This information enables evidence-based decision-making, allowing policymakers to prioritize actions and investments based on the identified risks and their potential impact. Moreover, enhanced data collection and analysis facilitate monitoring and evaluation of the effectiveness of disaster

risk reduction measures, helping to refine strategies and improve outcomes over time. By leveraging data-driven insights, governments can enhance their preparedness, response and recovery efforts, ultimately reducing the impact of disasters and building more resilient communities.

International cooperation: Governments should actively engage in international cooperation by participating in regional and global forums, sharing knowledge and collaborating on joint initiatives. Through these platforms, countries can exchange valuable insights, lessons learned and innovative approaches to address disaster risks effectively. By learning from the experiences of other nations, governments can gain a broader perspective and access a wider range of tools, strategies and technologies. This cooperation promotes the adoption of effective practices and accelerates the implementation of national strategies aligned with the Sendai Framework. International cooperation also enhances collective efforts in building a more resilient global community, where countries collaborate to address shared challenges and contribute to the overall reduction of disaster risks worldwide.

11.b.2: Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies

Clear guidelines and templates for local implementation: Clear guidelines and templates play a vital role in achieving target 11.b by providing a standardized framework and guidance for local governments to develop their own disaster risk reduction strategies. National governments should take the initiative to develop and provide clear guidelines that outline the essential elements of a comprehensive local strategy. These guidelines can cover various aspects such as risk assessment methodologies, identification of mitigation measures, development of preparedness plans, establishment of early warning systems and formulation of effective recovery mechanisms. By offering a structured framework and step-by-step instructions, guidelines help local governments navigate the complex process of disaster risk reduction planning. Templates, on the other hand, provide a practical tool that local governments can adapt to

Building mixed material resilient schools in Nampula, Mozambique © UN-Habitat

their specific contexts, ensuring that the strategies align with national goals and priorities while addressing local needs and vulnerabilities. Clear guidelines and templates promote consistency and coherence in local strategies, facilitate knowledge transfer and enhance the overall effectiveness of disaster risk reduction efforts across different levels of governance.

Multilevel coordination: Multilevel coordination is crucial for achieving target 11.b as it enables effective collaboration and synergy between national and local governments in disaster risk reduction efforts. To foster multi-level coordination, it is essential for national and local governments to establish robust mechanisms for communication, cooperation and joint planning. This process includes maintaining regular channels of communication to facilitate the exchange of information, sharing best practices and coordinating resources. National governments should actively engage with local authorities by providing guidance, technical support and capacity-building opportunities. In fostering multilevel coordination, governments can ensure that disaster risk reduction strategies are aligned, integrated and implemented cohesively across different levels of governance.

This approach enhances the effectiveness of risk reduction measures, promotes efficient resource allocation and enables a more coordinated and comprehensive response to disasters.

Accessible financial resources: National governments can play an important role in achieving target 11.b by providing local governments with the financial resources needed to effectively implement disaster risk reduction strategies. They can support local governments by establishing dedicated funding mechanisms specifically for disaster risk reduction initiatives. This may include allocating funds, creating grant programmes or providing financial incentives to encourage local governments to prioritize risk reduction efforts. Additionally, national governments can assist in facilitating partnerships with national and international organizations, leveraging their expertise and financial resources. By ensuring that local governments have access to financial resources, technical expertise and other necessary resources, governments can empower them to develop and implement effective local disaster risk reduction strategies, ultimately enhancing the resilience and preparedness of communities in the face of disasters.

Target 11.c
Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials

Promotion of local material industries: The promotion of local material industries can help promote sustainable and resilient building practices in least developed countries through various strategies. Governments and relevant stakeholders can promote entrepreneurship by providing support programs, access to finance, and business development services to local artisans and manufacturers. Offering training and technical assistance can enhance the skills and knowledge of these professionals, enabling them to produce high-quality building materials. Additionally, creating market opportunities for locally sourced and produced materials can stimulate demand and encourage the use of sustainable and resilient construction practices. Supporting local industries not only contributes to economic development and job creation but also reduces dependence on imported materials, which can have environmental and economic benefits. By promoting local material industries, countries can enhance their capacity to utilize and leverage locally available resources, thus contributing to the achievement of target 11.c and the overall goal of sustainable and resilient buildings.

Knowledge transfer and technology sharing: Technical assistance and capacity-building programmes can help enhance knowledge and skills related to sustainable building practices in least developed countries. This can be achieved through training workshops, knowledge sharing platforms and partnerships with experienced organizations or experts who can provide guidance on design, construction techniques and material selection. Furthermore, facilitating knowledge transfer and technology sharing between developed and least developed countries is essential. This can be done through international collaborations, research networks

and technology transfer programs that enable the sharing of best practices, innovative construction methods and appropriate technologies suitable for local contexts. By promoting knowledge exchanges and technology transfers, especially of open and free data and resources, countries can leverage the expertise and experiences of others to build sustainable and resilient buildings utilizing local materials.

Research and development support: Research and development funding plays a crucial role in advancing sustainable and resilient building practices in least developed countries. By allocating funds to research projects and establishing research centers or institutes, countries can encourage the exploration and development of innovative solutions tailored to local contexts. Partnerships between academic institutions, local communities and industry stakeholders can facilitate collaborative research efforts. The outcomes of these research initiatives can inform the development of guidelines, codes and standards specific to the local conditions, ensuring that building practices align with accessibility, sustainability and resilience objectives. Additionally, financial assistance and incentives provided by international organizations, developed countries and financial institutions are essential in supporting the construction of sustainable and resilient buildings. Grants, concessional loans and subsidies can help offset the costs associated with adopting sustainable building practices and utilizing local materials, making such practices more widely available and financially viable for least developed countries. By investing in research and development and providing financial support, countries can make significant progress in achieving target 11.c and promoting sustainable and resilient buildings.

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04

Transformative Shifts For a Better Urban Future

KEY MESSAGES

The SDG Summit in September 2023, which will mark the midpoint of the implementation of the 2030 Agenda, must be seized upon as an opportunity to scale up transformative action for SDG 11.

Urgent action on the urban dimension of the SDGs that harnesses spatial planning, effective multilevel governance, multistakeholder participation and policy experimentation will drive overall progress toward the SDGs.

The proposed SDG Stimulus needs a strong urban and local component, rooted in multilevel finance and resource mobilization, in order to leave no one and no place behind.

Advances on data need to be further improved by disaggregation in order to measure all SDG 11 indicators adequately while gearing data closer to the technical challenges of implementation.

4.1

Overview

Humanity is already urban and will continue to move towards an urban future. In the coming two decades, all world regions will be predominantly urban and action in these settings will be key to the realization of sustainable development. Looking ahead to the 2024 United Nations Summit of the Future, urbanization needs to be at the center of the action-oriented Pact for the Future that is expected to be negotiated by Member States and endorsed at the summit to reinvigorate the United Nations system and keep the world on track to deliver on the 2030 Agenda. Given the undeniable fact that the world is and will stay urban, a clear focus on the impact of the evolution of cities and human settlements will be critical. Urban areas offer enormous opportunities for a better quality of life, prosperity and climate resilience, yet as Chapter 3 has shown, considerable bottlenecks stand in the way of realizing this potential in full. These bottlenecks are neither new nor unforeseen. They are rooted in persistent, structural and interlocking deficits in policy design, available resources, governance structures and implementation approaches that shape urban development pathways and outcomes. These very same bottlenecks explain why the world is off target for most of the commitments made through SDG 11. Tackling systemic bottlenecks requires transformative policy shifts.

Delivering global public goods in an urban world requires effective local action and an elevated sense of responsibility and accountability. The high-level advisory board on effective multilateralism makes a call to define "a core set of global public goods and global commons investments"[10] including in the areas of digital and clean energy transition, resilience to health threats and transforming education. In an urban world, the delivery of such global public goods for the benefit of humanity rests largely on the way in which cities are planned and managed, alongside action by local and regional authorities

as well as national governments. Much of the global digital transition is playing out in cities and urban areas where the divide is also significant. Cities and urban dwellers are major consumers of non-renewable energy globally. And, as seen through the COVID-19 pandemic, cities are and will continue to be major hotspots for the impacts of public health crises. As the global population continues to shift in an urban direction, so will the delivery of essential services and infrastructure, including education. Delivering global public goods will therefore rest on the capacities of city, local and regional authorities. In Our Common Agenda, the Secretary-General calls on all actors to be accountable for keeping their commitments on global agendas, including the Sustainable Development Goals. To rebuild trust between people and institutions, it is important that national governments stick to the promises they made towards their citizens and the global community. Keeping such promises is a critical step in establishing a renewed social contract.

The SDG Summit is an opportunity to scale up transformative action for SDG 11. As a key milestone and potential turning point in SDG implementation, it is critical to consider the cross-cutting impacts of SDG 11 on the 2030 Agenda. Transformative policy and governance-related shifts entail significant and fundamental changes in approach or direction to embrace innovative and bold measures that can bring about substantial change. These changes require adopting new strategies, principles and frameworks that can profoundly alter the way in which policies are designed, implemented and financed. The scale, complexity and multidimensional drivers of urbanization call for transformative shifts that depart from status quo or business-as-usual responses. Transformative shifts require political will, governance continuity and policy agility to bring about the desired changes. The costs of inaction on SDG 11 are considerable, and likely irreversible. Human lives, livelihoods and environmental collapse are at stake. Taking new steps and accelerating existing action now are necessary to prevent needless suffering and escalating financial cost to get back on track.

An important ingredient in effecting transformative shifts and advancing progress is clear political will across various scales (local, regional, national or even supranational) stemming from the recognition that humanity's present and future is tied to how well we plan and manage cities and human settlements. While there has been increased momentum around this globally since SDG 11 was adopted in 2015, there remains considerable room for urbanization to be positioned as a key driver of sustainable development especially in national policymaking. In particular, policy continuity—by setting and executing a long-term vision for urbanization at the highest levels of policymaking—is crucial to provide a clear direction, set goals and ensure consistency over time. Change in urban development takes shape over time. It requires sustained interventions and investments, guided by long term visioning informed by anticipatory mapping and planning for future transitions. Importantly, policy agility, or

flexibility and adaptation in response to evolving circumstances, is a necessary ingredient given the scale and at times rapid growth of cities.

This chapter highlights salient transformative policy shifts to accelerate progress with SDG 11 in light of the SDG Summit and beyond to the 2024 Summit of the Future. These shifts are cross-cutting in their impact both for SDG 11 targets and to meet the 16 other SDGs. They are also highly interlinked, calling for holistic approaches to their operationalization.

4.2

Resetting urban policy and governance directions and actions

The global urban transition is massive in scale and complexity. At the same time, the enormous potential of urban living to offer a better quality of life for all, protect the environment and

Children come up the escalators in '20 de Julio' neighborhood in Comuna 13 slums in Medellin, Colombia © Julius Mwelu/UN-Habitat

ensure prosperity could be better leveraged. While existing global, national and subnational commitments, prioritization and action are encouraging, a major reset is needed to scale impact. The most recent review by the Secretary-General on the progress of the Implementation of the New Urban Agenda (2019 and 2022) highlighted six areas of more effective means of implementation:

1 building a governance structure and establishing a supportive framework;

2 planning and management of urban and territorial spatial development, inclusive urban planning and management;

3 financing;

4 strengthening capacity to promote sustainable urbanization;

5 using technology to support sustainable urban development; and

6 facilitating development partner engagement and participation.

This section highlights specific policy action in several of these means of implementation that have come to light through the data presented in this report.

4.2.1 The need to transition from recognition to action is urgent

The role and impact of urbanization on sustainable development is acknowledged throughout SDG 11, as well as in the New Urban Agenda, which is seen as a cross-cutting accelerator for the 2030 Agenda. Notably, several other global policy frameworks including the Paris Agreement on climate change, the Sendai Framework on Disaster Risk Reduction, the Addis Ababa Action Agenda on financing sustainable development and the Global Compact for Safe, Orderly and Regular Migration, among others, recognize

the critical implications of urban development and local governments on desired outcomes. Most recently, the High-Level Meeting of the General Assembly to assess progress in the implementation of the New Urban Agenda is further testament to the continued recognition of defining the role of cities and human settlements for global sustainability. However, this recognition has not yet translated into a commensurate scale of action and investments in urban sustainability, otherwise the gap in SDG 11 progress might have been narrower. At the national level, while there has been a steady increase in policy narratives and vehicles, including national housing policies, a similar measurable growth in urban investments may be lacking given the persistence or systemic bottlenecks in many parts of the world. It is thus high time that policy recognition and rhetoric on the importance of sustainable urbanization translates into scaled-up action matching the magnitude of the urban transition. The recognition of urbanization as an opportunity must translate into increased programming, financing and investment in cities, urban areas and local government capacities.

4.2.2 Fostering experimentation is key in the of face unprecedented challenges

As cities are faced with new and unprecedented challenges and conditions, cities and local governments are well-positioned to foster places of experimentation to address these challenges in innovative ways, as shown in previous chapters. Referred to variably as niches, laboratories, incubators and urban labs, these places of experimentation open both physical and regulatory space to test and develop new ideas, without immediate market and regulatory pressures. Such places of experimentation recognize the importance of adapting practices and technologies to local context in enabling transformative shifts. By diversifying approaches and exploring new solutions, cities can build redundancy and increase their resilience. Experimentation in cities is further fostered and enabled by transnational municipal networks,

which have been growing in scale and scope. Cities that are embedded in transnational municipal networks also tend to be places that foster innovative practices.

4.2.3 Spatial planning generates an SDG multiplier effect

The way in which space, both rural and urban, is organized and used profoundly shapes development outcomes. Spatial planning is important because it helps guide the sustainable use of land, infrastructure and resources within a specific region or area to deliver priority SDG outcomes. Especially in contexts of limited resources, spatial planning and area-based approaches are needed to target investments in locations that promise the highest returns in human and environmental well-being. For instance, in contexts where accelerating economic growth is urgent, spatial planning allows economic investments and infrastructure to be directed to locations that optimize productivity and multiplier effects

across territories and sectors. In too many instances, poorly located investments have led to little or no outcomes for host communities or countries. Further, spatial planning can help to balance the development of urban and rural areas, ensuring equitable economic growth and reducing regional disparities. With both time and resource constraints faced ahead of the 2030 timeline to deliver the SDGs, it becomes critical to apply a spatial lens in development planning and investments.

4.2.4 Multilevel and multistakeholder governance is an accelerator for SDG 11.

Sustainable urban development is not possible without effective multilevel urban governance that includes local governments, civil society and national governments. The involvement of the public and other actors at all territorial levels is required for collective action to realize the SDGs. Multilevel governance arrangements are the tools to structure the involvement of all actors and are instrumental for creating

"Little Island", a new, free public park pier opened May 21,2021 at Green Space Located Within Hudson River Park, NYC,USA. May 21,2021.

synergies, reducing overlapping and critical gaps between institutions, and promoting trust and accountability that enhance policy coherence and a territorial approach that leaves no one behind. Establishment and operation of effective and efficient multilevel governance requires empowered subnational governments, clear divisions, and sufficient redistribution of labour, powers, responsibilities and resources among national and subnational government entities, founded on the principle of subsidiarity. It also requires multistakeholder collaboration among government institutions, private firms, civil society and other NGOs, higher education institutions and the like.

4.2.5 Recasting urban planning at the core of public policy capabilities is key

Given the speed and scale of the urban transition and expected future impacts, it is essential to ramp up the number and agility of urban planners and designers globally. There is a shortage of urban planners, designers and other roles critical for urban service delivery and urban governance, particularly in Asia and Africa where the world's fastest urban growth is happening. Prioritizing the training of urban professionals to respond to the wave of urban growth in these and other regions is essential, including making available the funds to facilitate education, training and knowledge exchange. SDG financing can play a significant role in this regard, as financing for the built environment is only as impactful as the knowledge and skills of the people leading their planning and implementation. Such capabilities are urgently needed not only to respond to the needs of today, but also to anticipate and plan for future urban demands.

4.3

An urban anchor in SDG financing

Cities and human settlements need to be considered in SDG financing both as recipients but also as enablers. On the one hand, SDG 11 commitments and the cross-cutting dividends across other SDGs requires a deliberate focus in overall SDG financing efforts. On the other hand, urban areas offer immense opportunities to boost financing for the SDGs, if they are well planned and managed. Financing as a means of SDG implementation is an important consideration in light of the proposal by the Secretary-General that Group of 20 countries contribute $500 billion annually to an SDG Stimulus package and the direct relation between financial reform and tackling inequality.[2] According to the Secretary-General, a "great finance divide" has inhibited many developing countries from investing in pandemic recovery, climate action and sustainable development. The SDG Stimulus is aimed to address the high cost of debt and rising risks of debt distress, to scale up affordable long-term financing for SDG-oriented development, and to expand contingency financing to countries in need. It is also an opportunity to tackle the "great urban divide" articulated in this report.

4.3.1 A strong urban and local component, rooted in multilevel governance is needed in SDG stimulus implementation.

Reform of the international financial architecture to deliver the SDGs must fully consider the central role of local finance and local governments, and the challenges and opportunities of SDG financing at all levels of government. Implementation of the SDG Stimulus must have a clear urban component as 65 perc ent of the 2030 Agenda may not be fully achieved without the involvement of urban and local actors.[11] As such, continued global urbanization and urban growth will continue to necessitate massive investments to realize the SDGs. Local governments and city authorities will play a key role in translating investments into actions for sustainable development. Further, integrated national financing frameworks designed to overcome barriers to financing the SDGs and anchored in the Addis Ababa Action Agenda must fully involve local governments and urban finance considerations.

4.3.2 Reform of the global financial system is critical to address urban inequality

The Secretary-General has called for reform of the global financial architecture that currently favors the rich over the poor and exacerbates inequalities. This report has documented the observed "great urban divide" as a critical concern. Global crises impact subnational and local finances, both directly and indirectly risking the delivery of the SDGs. For example, slowing global and national economic growth directly impacts local economies, finance and revenues, and therefore the ability of local governments to respond to immediate shock-induced needs and continue delivering their usual mandate. The geographic impacts of global crises are unevenly distributed due to differing initial conditions and capabilities of local governments and economies. Therefore, disaggregated understanding and responses are needed at the subnational scale, involving actively with local and regional governments. Rebalancing geographical inequities in the impact of global crises requires tailored national measures and place-based policies to support local and regional authorities in addressing imbalances.

4.3.3 National and local fiscal performance are intertwined

Austerity measures impact national transfers and other financing for immediate response to emergencies. Further, national debt sustainability conditions, including significant national fiscal imbalances, can directly impact borrowing and fundraising by subnational governments. National-level credit ratings and interest rates set by central banks directly impact the ability of subnational governments to access financing. National and global macroeconomic and fiscal measures for future resilience must integrate subnational and local fiscal dimensions. Reversely, national fiscal balances are tied to and impacted by local fiscal performance. Subnational government finances can impact national government fiscal balances including by increasing debt sustainability risks. Therefore,

efforts to boost SDG financing, including through global financial architecture reform, must place municipal endogenous finance at the centre. Fiscal decentralization, coupled with prudent financial management of local fiscal sustainability, is critical for urban development and overall national fiscal sustainability, and should therefore be a clear consideration in reforming the global financial architecture.

4.3.4 Unlocking stranded urban resources is an opportunity to finance the SDGs

Cities and urban areas drive the global economy and account for the bulk of global GDP. Where they are well planned and managed, with empowered local governments, cities and urban areas are can generate revenues to augment public reserves and development financing. Yet, revenues from cities risk not being sufficiently developed or mobilized due to a range of factors. Inadequate regulatory and enabling environments, as well as insufficient institutional capacities, are some common factors leading to suboptimal mobilization of local revenues. City governments in developing regions largely rely on intergovernmental transfers for funding new housing projects and infrastructure and generally have very limited power and capacity to collect their own revenues. For example, intergovernmental transfers account for 90 per cent of local revenues in Kenya, Tanzania and Rwanda. This reliance is a huge lost opportunity for national financing and investment in the SDGs. In Our Common Agenda, the Secretary-General points to the role of taxation reform as a driver of sustainable and just transition, such as to tax carbon emissions and other polluting activities rather than people or income. Multinational companies benefit from the urban infrastructure provided to them, yet they have track record of evading their tax burden. The ability of cities and local economies to generate productivity requires investments in adequate infrastructure, planning and management. It therefore calls for investments in designing and managing cities and local economies to maximize financial performance, while boosting local government financial capabilities.

4.3.5 Funding maintenance is critical to prevent sliding back on SDG targets

Finance for maintenance and repair of infrastructure should be central in the development discourse, to ensure infrastructure investment is fully leveraged and to prevent infrastructure from degrading and thus sliding back on SDG targets. The issue of maintenance is typically sidelined in strategies for achieving sustainable urban development. Upkeep of existing infrastructure is considered less politically valuable than delivery of new infrastructure. However, neglecting the small incremental funding needed for maintenance and repairs is extremely costly in the long run, as lack of maintenance inevitably leads to expensive emergency repairs and high replacement cost. For example, in the United States in the period 2009-2014, the Department of Transportation spend more on road repair than on road expansion.[12] Even more concerning is that failing infrastructure can lead to significant loss of human live, the risk of which is only set to rise as climate change is increasing the exposure of cities to disasters. Decades of recurring investment in urban areas have demonstrated that without adequate funding for maintenance, public housing projects gradually decline into slum conditions, sidewalks degrade to the point where they are unusable, and water supply networks break down, causing contamination and leakage. Lack of maintenance is especially concerning for people with disabilities, to whom even minor deterioration can already present a significant obstacle. The World Bank recently called for more attention to this domain stating that "many SDG costing exercises do not consider the operation and maintenance needs related to infrastructure, nor are the estimates discounted in a consistent manner."[13] Elevating maintenance also gives credit to the countless workers and day laborers, often earning very low wages, that operate in public space that execute such repairs and maintenance. Project budgets rarely account for the recurring expenses of maintenance, but without such maintenance, essential infrastructure will soon falter, before

breaking down entirely and thereby setting us back on the SDGs and accruing expensive replacement costs.

4.3.6 Consolidating urban investment portfolios around key outcome areas can scale impact

Substantial investments are made across government sectors, many in urban contexts. However, sector focused planning, implementation and financing leads to fragmentation in efforts to transform cities and urban areas, and lost opportunities to consolidate outcomes. Sector policies, often designed at the national scale, cascade down to local-scale plans and investments, but may not be sufficiently integrated horizontally with urban sector policies and plans or vertically with subnational policies at different scales. For instance, national infrastructure planning has direct and significant impacts on how cities and urban areas develop, and their connectivity and role within a larger system of infrastructure, national economy and hierarchy of settlements. Yet, national infrastructure planning, at times, may be done independently from national urban policy priorities, plans and investment and sometimes even sidelining local governments. This lack of integration points to the need for multilevel governance as one of the key urban policy directions to accelerate progress towards SDG 11.

Effective multilevel governance works as follows: It addresses disconnects by aligning sector driven policies and initiatives that are implemented in or with an impact on cities and urban areas. This alignment helps avoid disjointed or contradictory policies that may hinder progress or create unintended consequences. Government departments in charge of the cyclical replacement of infrastructure need to coordinate with departments that plan and design a city's long-term vision, to ensure infrastructure replacement is accompanied by systematic upgrades and improvements. With a shared vision, national and local policymakers can ensure coherence across different sectors, departments and levels of

government for joint impact on the sustainability of cities and human settlements. Policy integration and coherence are key dimensions of multilevel governance that generate better urban outcomes and have a considerable impact on scale and speed of progress with SDG 11.

4.4

Leapfrogging through data and technology

4.4.1 Urban data disaggregation is key to leaving no one and no place behind

Breaking down and analyzing data at a more detailed level within an urban context, such as by income, gender, age, race, ethnicity, migratory status, disability, geographic location or other relevant categories, is critical to ensure inclusive urban development. It is especially important in targeting for highest impact amidst limited resources. Disaggregating urban data allows policymakers, planners and decision-makers to identify specific areas or population groups that require targeted interventions that address the unique needs and challenges of different neighbourhoods or demographic groups. Disaggregated urban data provides a more accurate and nuanced understanding of urban dynamics at the granular level, thus enabling more effective and targeted interventions. It provides insights into where investments are needed most, allowing for more equitable and efficient allocation of resources, which is particularly relevant for areas that have been historically neglected or face systemic inequalities. For example, fiscal transfers from national to local governments to support public service delivery need to be based on actual population figures and their spatial distribution, including the displaced, refugees and migrants, rather than potentially outdated census data. Further, disaggregated urban data helps in identifying and addressing issues of inequalities, social exclusion, inaccessibility, and discrimination within cities. It highlights disparities in access to public services, infrastructure, opportunities, and quality of life among different population

segments. Data is also critical to hold actors accountable to their commitments.

4.4.2 Implementation data to complement monitoring data

In the pursuit of SDG 11, much emphasis has been placed on data that helps monitor and evaluate progress. It is critical to draw attention as well to implementation data, which differs from monitoring data. Implementation data can be understood as the technical data that is required to implement the transformative policies needed to achieve the SDGs. For example, construction of high-capacity transit systems relies on soil data, intermodal scheduling data, route survey data, unused floor-area ratio capacity data, etc., which are resource intensive to collect and therefore not easily available to cities and local governments, particularly in developing countries. Whereas monitoring data operates with universal definitions that enable comparison, implementation data uses context-specific definitions that are aligned to local planning and legal frameworks. Community engagement in the collection of implementation data is important as a means to ensure that inequalities are not perpetuated. Significant resources are needed to enable the training and capacity building of local governments and communities to collect, process and act on context-specific implementation data.

4.4.3 Technological diversification offers opportunities towards urban sustainability

The plurality of urban development approaches demonstrates that there is no single trajectory of development stages. In a global reckoning of the detrimental impact of many modern technologies, the past decade has seen a greater appreciation of traditional and indigenous technologies for managing urban life. In particular, nature-based technologies have experienced a resurgence in response to accelerating climate impact in cities. Such traditional approaches can be complemented by newly emerging technologies. The application of such technologies is an

opportunity for cities in developing countries to accelerate their development and overcome the inherent drawbacks of the rigid and technocratic urban planning and urban management practices from the 20th century. By adopting advanced technologies, sustainable practices and innovative approaches, cities can potentially avoid the pitfalls and inefficiencies associated with outdated systems and leap directly into more efficient and sustainable models of urban development.

However, technological advances risk exacerbating existing, and generating new, socioeconomic inequalities including through the digital divide. Digitalization is reshaping how urban dwellers live, work, learn and play. It will change urban economies and cities and local governments need to act proactively to prepare their economies for the effects of advancing automation and digitalization, particularly to counter the risk of growing social inequalities and exclusion arising from technological advances. Digitalization can also facilitate low-carbon technologies, particularly in operating small-scale, small-grid, modular and flexible systems and applications. Cities are faced with a series of complex ethical, legal and technical issues through the introduction of frontier technologies. Critically, people must be at the centre in the application of digital technology or urban solutions, and not the other way around. Cities could benefit from being more technologically driven and utilizing non-conventional data sources to expand their innovation frontiers. The introduction of artificial intelligence, machine learning and sensor technologies in learning are likely to have a massive impact on urban data. Technologies already allow continuous updates and real-time data collection and analysis in many urban fields such as transport and disaster hazards, thus contributing to reduction of traffic jams and fatalities during natural disasters.

4.4.4 Urban foresight is essential for future resilient pathways

Building economic, social and environmental resilience, including appropriate governance and institutional structures, must be at the heart of the future of cities. Urban areas need to be prepared for dynamic and unpredictable futures. The disruptive nature of COVID-19, supply chain disruptions, high inflation, climate change and armed conflicts are all reminders that urban areas need to be prepared for an ever-changing and unpredictable future. Urban foresight, or the proactive and systematic exploration of future trends, scenarios and possibilities in the context of urban development, is a necessary approach amidst a series of interlocking current and forthcoming shocks and crises. It involves the anticipation and understanding of potential challenges, opportunities and transformative forces that may shape cities in the future. Urban foresight goes beyond urban planning approaches that primarily focus on current conditions and short-term goals. It emphasizes long-term thinking, strategic planning and the integration of future-oriented perspectives into urban decision-making processes. At the same time, urban foresight is necessary to challenge static land-use plans and regulations, which are often in force for long periods of time and lack the flexibility to deal with changing and unpredictable conditions. Urban foresight is a central approach to address the complex and uncertain challenges facing cities, and address issues of political patronage and urban clientelism. By adopting a forward-thinking mindset and incorporating foresight practices into urban planning and governance processes, cities can better navigate future uncertainties, enhance their adaptive capacity, and shape more sustainable, inclusive and resilient urban futures.

4.5

The urban opportunity to advance global agendas

The global urban transition offers distinct opportunities for accelerating progress around key global priority policy agendas. Full consideration of the implication of cities and human settlements in the formulation and implementation of global agendas is critical.

Yet, while the role of urbanization does feature in several global development agendas, this does not consistently feature in implementation, follow-up and review. To conclude, this final section articulates why it is critical to continue centering the role of cities, human settlements and local governments on particularly urgent agendas related to housing, climate and crises.

### 4.5.1 Placing housing at the center is necessary to renew the social contract

Almost 60 years ago, housing was listed among fundamental rights of people in the International Covenant on Economic, Social and Cultural Rights (1966). The Covenant notes that "The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions. The States Parties will take appropriate steps to ensure the realization of this right, recognizing to this effect the essential importance of international cooperation based on free consent." Acknowledging the right to housing is no guarantee for the fulfillment of the right to adequate housing, as the numbers presented in this report demonstrate. More recently, Our Common Agenda considers adequate housing as a foundation to renew the social contract between governments and their people, and a means of leaving no one behind. Indeed, adequate housing is a core condition to meet multidimensional needs related to education, health, income, and overall well-being. Moreover, ensuring populations' right to adequate housing is a critical lever to foment social inclusion, as can be observed from the mostly locally-led housing-related responses to the COVID-19 emergency, such as emergency housing solutions to house women suffering from sexual and gender-based violence. In the same vein, where access to adequate housing is lacking, poverty and inequality are likely to proliferate. On an urban planet, housing the global urban population adequately is a fundamental condition to realize sustainable development across the

board. Therefore, housing should be considered a driving force to deliver global, national and local development priorities that are centred accordingly across commitments and plans. Addressing housing through a sector-specific policy alone is insufficient. It needs to be placed strategically in national development, economic and ecological transition planning, then linked to priority targets and enabled through adequate prioritization of related policy interventions. The involvement of poor communities and local governments in the definition, implementation and follow-up of housing policies, as well as the acknowledgment and support to local initiatives, is instrumental to their progress.

4.5.2 Cities need to be at the forefront of climate action

Cities are key to achieve the Paris Agreement targets. Urban areas are major contributors to climate change, accounting for 71per cent and 76per cent of CO_2 emissions of global final energy use and between 67–76 per cent of global energy use.14 However, they are also engines of climate innovation and action and thus at the frontline of delivering solutions. Global coalitions of cities and other local governments, such as the Governors' Climate and Forests Task Force, the Under2Coalition, C40 Cities Climate Leadership Group and the Global Covenant of Mayors for Climate & Energy, demonstrate the commitment and potential of subnational governments to address climate change. Many cities are committing to climate action, reducing greenhouse gas emissions, adapting to climate change and passing targets to reach net zero emissions. In fact, climate commitments by cities and local governments are more ambitious than those of their national governments.

The latest Intergovernmental Panel on Climate Change report has highlighted the role of cities as critical. Their importance for climate action is mentioned in the Paris Agreement and the preamble of the COP26 Glasgow Climate Pact recognizes the need for multilevel and cooperative action. To effectively address

Solar city Mueller District in Austin , Texas , USA - endless solar panels and a renewable , sustainable community of homes sustainable living © Shutterstock

these challenges, the COP27 Presidency, in collaboration with UN-Habitat and with the facilitation of ICLEI, is developing an initiative called Sustainable Urban Resilience for the Next Generation (SURGe). The Initiative aims to enhance and accelerate local and urban climate action through multilevel governance, engagement and delivery via five integrated tracks: buildings and housing, urban energy, urban waste and consumption, urban mobility and urban water. These focus areas contribute to achieving the both the Paris Agreement goals and the Sustainable Development Goals. The initiative builds on existing work in this space, notably commitments made by local and regional governments, adds momentum to existing initiatives, and provides a holistic framework to achieve sustainable and resilient urban systems.

4.5.3 Cities need adequate tools and resources to cope with crises

Crises are increasingly urban in character, both as the settings where they unfold, and as places where their impacts are felt. Cities, local governments and urban stakeholders are key protagonists who can overcome crises and sustain peace. Urban and communities are demonstrating that, if sufficiently empowered, they can induce transformative shifts in the recovery that results in more sustainable development. As called for at the 11th World Urban Forum, multilateral actors need to put the science, research and data on the future of urban crises at the fingertips of local governments to help them mobilize the political will and resources for action at scale, shifting fundamental policies and practices to accelerate progress. Cities have also demonstrated that migration, if well planned and managed, can drive positive growth and development, as recognized also in the New Urban Agenda (para 28). The Secretary-General's Action Agenda on Internal Displacement recognized that internal displacement is an increasingly urban phenomenon. Chapter 2 of this report documents the internally displaced population as a share of the total population lacking adequate housing or living in inadequate forms or housing. Cities should be seen as a rich ecosystem that can, if adequately resourced, contribute to the resolution of displacement challenges. Local governments, their associations and networks can help deliver on the Global Refugee Compact and the Global Migration Compact if they are given a role in the design and implementation of responses. For example, the Mayors Mechanism Call to Local Action for Migrants and Refugees has resulted in a repository of ready-to-be-scaled solutions to further the Global Refugee Compact and Global Migration Compact. National level actions need to be complemented with urban recovery frameworks that support the implementation of recovery interventions from the bottom up. In a future beset by crises, better cities are the best defense.

Endnotes

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