11 SUSTAINABLE CITIES AND COMMUNITIES

2018 HLPF THEMATIC REVIEW OF SDG 11

Make Cities and Human Settlements Inclusive, Safe, Resilient and Sustainable

A global perspective on SDG-11

UNITED NATIONS

11 SUSTAINABLE CITIES AND COMMUNITIES

GOAL 11 TARGETS

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

SDG 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.

SDG 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.

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

SDG 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.

SDG 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.

SDG 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.

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

SDG 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.

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

Monitoring Urban in the 2030 Development Agenda

Urbanization is a transformative force for development and this has been largely recognized by the international community in recent years, particularly with the adoption of the "post 2015 global agendas" including the role conferred to cities. No one disputes that cities are centers of innovation, investment, and are pivotal for economic growth and development in both the developed and developing world. Although cities are characterized by stark socio-economic inequalities, social exclusion, extreme poverty, high unemployment, poor environmental conditions, and drivers of climate change, their potential for growth and development, makes them strong drivers for positive change. Their density and economies of agglomeration act as visible and invisible strings that connect all SDGs together, linking economy, energy, environment, science, technology and social and economic outcomes. With nearly 54% of the world's population living in cities and urban human settlements today, and nearly two-thirds by 2030, this critical mass of urban dwellers has an enormous potential for change both in urban and rural areas. Already an estimated 548 cities in 2018 have populations of more than 1 million people, and this is expected to increase to 706 cities by 2030.

Cities are very well-positioned to take the lead in addressing many of the global challenges including air pollution, climate change, poverty, inequality, unemployment, crime and environmental degradation.

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54%
of the world's population live in cities and urban centres today

The pledge of Goal 11 to –make cities and human settlements inclusive, safe, resilient and sustainable – provides a great opportunity for the attainment of collective and inclusive progress, and for the achievement of sustainable development in the world. The New Urban Agenda (NUA), adopted in 2016 in Quito, complements and reinforces the SDGs by offering means and approaches on planning, design, management, governance and financing of cities, focusing on agreed main transformative commitments.

In July 2018, Goal 11 will be reviewed for the first time as part of the United Nations High-level Political Forum on Sustainable Development (HLPF) – a platform for follow-up and review of the 2030 Agenda for Sustainable Development. HLPF is a great opportunity to conduct an in-depth review of the efforts and issues surrounding the implementation of Goal 11, in addition to sharing and exchanging experiences, identify gaps and foster collective action at the local, national and global levels.

Targets and indicators of Goal 11 focus on key development issues, related to the elimination of slums, provision of accessible and affordable transport, managing urban sprawl, fostering urban governance participation, the enhancement and preservation of cultural heritage, the need to address urban resilience and climate change challenges, and the provision of safe and secure public spaces, consolidating urban policies, among others. All these are fundamental elements that respond to the social, economic and

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environmental dimensions of sustainable development. The integration and indivisibility of these targets provide a great opportunity to realize human rights, achieve gender equality and the empowerment of all women and girls.

Governments have the primary responsibility for the follow-up and review of the progress made in the implementation of the Sustainable Development Goals and the achievement of related targets. They are expected to establish regular and inclusive review processes and develop new systems for ensuring high quality, accessible, timely and reliable disaggregated data. However, this requires appropriate monitoring frameworks, sufficient technical and institutional capacities, and an adequate enabling environment to produce good

data and information. This is particularly applicable to urban related indicators that depend on spatial data mechanisms and new systems for reporting. From the 15 indicators that constitute Goal 11, at least 10 require new monitoring approaches and tools for data collection, analysis and use of the information, and a complimentary definition of what constitutes 'urban' and the 'city', otherwise the aggregation of national and regional values can be seriously compromised.[1]

This brief report presents progress made in the refinement of the monitoring framework of Goal 11 indicators and the complimentary work on preparation of global baselines. This brief note also features emerging critical issues of the urbanization process and the notion of "urban" as a cross-cutting or transversal area for the achievement of other goals and targets. The report also provides insights for building effective partnerships and alliances for establishing more sustainable solutions for global and local monitoring.

This report draws on evidence from primary and secondary analysis of qualitative and quantitative data provided by countries themselves, and by the Global Sample of Cities database, as well as geospatial analysis of cities. It also relies on information derived from various other sources including voluntary national review reports, as well as reports from local governments, urban observatories, UN agencies, NGOs, private sector and academia. Consultations with a variety of partners and the UN system has contributed to inform the preparation of this report.

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1   At the target and indicator level, the slums indicator (11.1.1) was the only one monitored under the MDGs, all the remaining indicators under Goal 11 are being monitored for the first time at the global levels.

Interlinkages of Goal 11 with other development agendas and frameworks

Several international development agendas adopted in recent years such as 2030 agenda, New Urban Agenda, Sendai Framework, etc are fundamentally integrated and interdependent. These interlinkages (internally and externally) are extensive and wide-ranging: most of the 234 SDG indicators have a direct connection to urban policies and a clear impact on cities and human settlements, since nearly one third of indicators are being measured at the local level. The goal on poverty is linked to access to land, slums and inadequate housing; health is often affected by 'place'; gender equality can benefit from access to public spaces, basic infrastructure, and participation in local governance and decision-making; urban waste management is strongly

associated to safe drinking water, sanitation and hygiene; energy systems are critical for the development of safe, resilient and sustainable human settlements; inclusive and productive cities are important for entrepreneurship and job creation; resilient infrastructure and industrialization are essential for the prosperity of cities; intra-city and spatial inequalities are fundamental for understanding and addressing the goal on inequalities; the efficient management of natural resources, safe disposal and treatment of toxic waste and pollutants can contribute to responsible consumption and production; the goal on cities offers many opportunities to develop mitigation and adaptation strategies to address climate change especially through environmentally sustainable and resilient urban development; the proper management of waste generated by cities has direct implications on the pollution of oceans; the degradation of natural habitats and the loss of biodiversity largely depends on the way cities are managed; the promotion of peaceful and inclusive societies requires cities free of violence and with a rule of law.

Understanding the range of positive and negative interactions among the different sustainable development goals is key to unlocking their full potential. The policy options and the strategies to pursue them together are key to turning their potential for synergies into reality.[2]

Achieving sustainable development requires reinforcing and complementing the global agendas to maximize efficiencies and build synergies. The 2030 Agenda has interlinkages with other global agendas.


2   International Council for Science (ICSU), 2017, *A Guide to SDG Interactions: From Science to Implementation*, Griggs D.J., Nilsson M., Stevance A., McCollum, eds. Paris

There are innumerable connections among global agendas that demand a holistic approach and better understanding of their interrelations and synergies to foster sustainable development

Besides the interlinkages of development goals, it is paramount to integrate the relevant global agendas to develop synergetic relations that produce long-lasting results. It has been considered that the New Urban Agenda is an 'entry agenda' and accelerator to other agendas, providing details of implementation of the urban dimensions of the SDGs, particularly Goal 11. The Sendai Framework for Disaster Risk Reduction 2015-2030 complements the 2030 Agenda as it includes seven global targets, priorities for action, and a whole set of guiding principles for disaster risk reduction. The Paris Climate Change Agreement offers many opportunities to

develop mitigation and adaptation strategies to address climate change especially through environmentally sustainable and resilient urban development. The Addis Ababa Action Agenda provides a foundation to support the implementation of the SDGs, with the aim of mobilizing public finance, setting appropriate policies and regulatory frameworks to unlock private finance. There are innumerable connections among these agendas that demand a holistic approach and better understanding of their interrelations and synergies to foster sustainable development, reduce disaster risk and strengthen resilience in a coherent fashion.

Figure 2: Interlinkages between SDG 11 and other SDGs
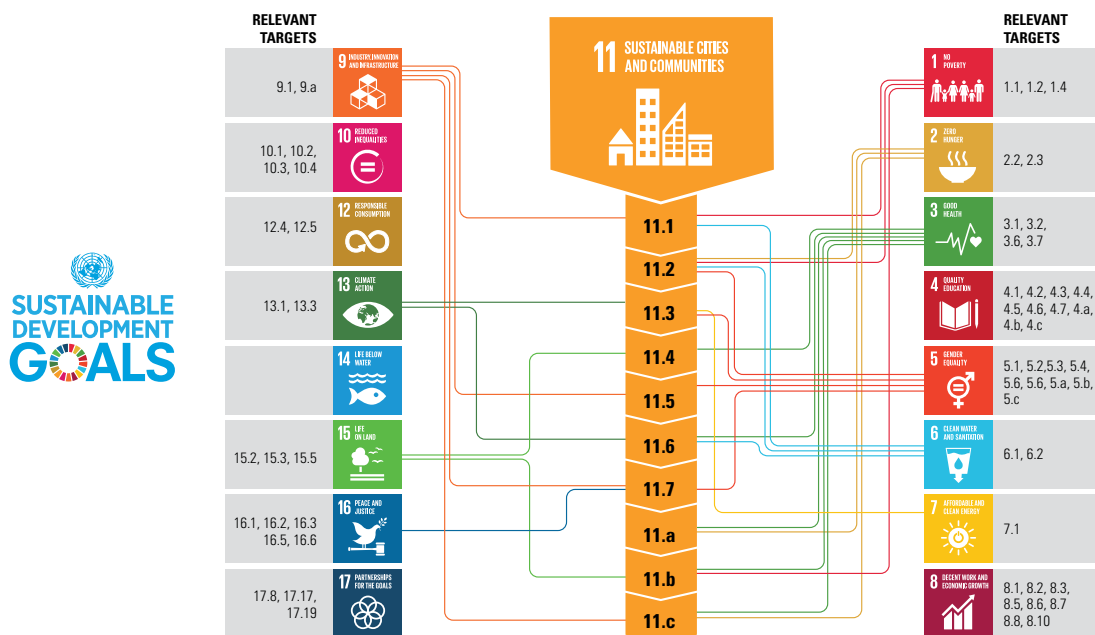
Progress in SDG 11 indicator monitoring

Many of the Goal 11 indicators are new and challenging to monitor even for the most advanced countries. They require a spatial or territorial analysis, need to collect and compute data at local level, and depend on a technical definition of the city as a unique entity of analysis. An agreed method for the aggregation of values at national, regional and global levels is also required. Important gaps in methods and data availability in at least half of the indicators for Goal 11 have compelled governments and custodian agencies to use proxy indicators to assess progress in various targets for these early years of SDGs. Nonetheless, in the last three years important progress has been made in the design and finalization of methodologies, the definition of urban concepts related to the targets and indicators, the organization of pilot activities in support of proof of concepts for the proposed methodologies, the implementation of capacity development activities and the delivery of technical advisory services to countries.

Designated custodian agencies, UN Agencies and Regional Commissions have done comprehensive reviews of existing policies, capacities and methods, developed significant partnerships, conducted extensive consultation and Expert Group Meetings with relevant stakeholders to refine the monitoring methodology and agree on operational definitions. They have also organized country meetings and training activities with governments and specialized agencies to build more consensus on the monitoring process. As a result, methods have been refined, data coverage expanded, and accuracy improved.

In the last two years, UN-Habitat in collaboration with other UN agencies, National Statistical Offices, local governments, New York University, the Joint Research Center of the European Commission and other city leaders have developed reference guidelines for city and urban definitions. Specialized guidelines for applying a National Sample of cities approach; including tools for spatial urban monitoring and for the adoption of a unified global monitoring framework for SDG Goal 11 and the urban components of the development agendas has been developed.[3] Additionally, metadata and training modules for the SDG 11 indicators were developed and are being used for building technical capacities for urban monitoring in ECA, ESCAP, ESCWA, ECE and ECLAC regions.

Urban observatories have been reinforced to address the need for reliable, high resolution urban datasets specific to the cities and immediate city-regions in which they operate. Some of these local think tanks are leading the local level engagements on collecting, analyzing and interpreting urban indicators related to the NUA and the urban SDGs through consultative and inclusive processes. Various countries and cities are using the City Prosperity Initiative[4] to measure city progress and to help decision-makers, investors and stakeholders to understand and leverage synergetic relations to adopt more informed policies.

Designated custodian agencies have taken requisite steps to refine the SDGs monitoring methodology and agree on operational definitions. As a result, methods have been refined, data coverage expanded, and accuracy improved.

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3   Refer to the City Prosperity Initiative implemented in more than 400 cities from 12 countries for the integrated monitoring and reporting of NUA/SDGs at city level.

4   http://cpi.unhabitat.org/

A succinct overview on the progress made on the G11 indicators reveals the following features:

Slums (11.1.1)	Building on MDG methodology, and to ensure the indicator is universal, modifications were introduced to add housing inadequacy in the measurement that contemplates the use of geospatial technologies for slum identification;
Transport (11.2.1)	Expert consultations focused on refinement of the method of analysis, proposing a new technique that will expand the utilization of diverse existing databases with more possibilities of conducting trend analysis over the years;
Land consumption (11.3.1)	Important progress has been made in the measurement of this indicator using remotely sensed data and image interpretation with the involvement of various agencies working in the field of geographic information and earth sciences;
Direct participation of civil society (11.3.2)	Expert meetings refined the method of analysis and the definitions used, adding capacity development activities and country consultations for consensus building;
Cultural heritage (11.4.1)	A data collection mechanism was developed and tested, building on International definitions and concepts used by the 2009 UNESCO Framework for cultural statistics and the long history of UNESCO Institute of Statistics (UIS)'s led surveys;
Number of deaths and economic loss attributed to disasters (11.5.1 and 11.5.2)	These indicators are included in the monitoring for the Sendai Framework global targets and will be monitored under this global monitoring framework in conjunction with the SDGs monitoring;
Solid waste (11.6.1)	Expert meetings discussed inconsistencies in concepts, data recording, collection methods and seasonal variations in the quantities of waste generated, proposing new terminology and operational definitions;
Air quality (11.6.2)	This indicator had a well-founded methodology and consistent sources of data available before the SDGs came into place;
Open spaces (11.7.1)	Previous work of UN-Habitat in this indicator has facilitated the refinement of the method and key global definitions, with the focus now moving towards supporting countries/cities to collect primary data;
Sexual harassment (11.7.2)	New concepts and methods of data collection have been proposed to support consistency in data collection and comparable data, with a plan for existing surveys conducted in EU to be replicated in other regions and contexts;
Urban and regional development plans (11.a.1)	A comprehensive review of urban policies and the methodology used to assess the Global State of Urban Policy, including agreed qualifiers of national urban policies, constitutes the basis of this modified indicator. Teams working on this indicator have requested for modifications in the current indicator to make it more meaningful and measurable;
National and local disaster risk reduction strategies (11.b.1 and 11.b.2)	These indicators are included in the monitoring for the Sendai Framework global target (e) and will be monitored under this global monitoring framework in conjunction with the SDGs monitoring;
Financial support to less developed countries (11.c.1)	Formal definitions have been developed, with feedback from consultations recommending an adjustment in the framing of the current indicator to ensure its more aligned to existing data systems and already existing complimentary definitions and standards.

First technical meeting on human settlements indicators for the SDGS

UN-Habitat, and all other custodian agencies in collaboration with ECA, ECLAC and ESCAP, provided training to NSOs in more than

40

countries on the monitoring of various SDG 11 indicators in Asia, Latin America and Africa

Whereas there are 'data rich and ready to go' countries with strong systems and institutions, adequate technical capacities and available information in numerous indicators, there are others lacking basic systems and conditions. UN-Habitat, and all other custodian agencies in collaboration with ECA, ECLAC and ESCAP, provided training to NSOs in more than 40 countries on the monitoring of various SDG 11 indicators in Asia, Latin America and Africa. Specialized training to urban observatories on the CPI was conducted in several countries such as Kuwait, Jordan, Botswana, Zambia, Ethiopia, Mexico, Egypt, Tunisia, Saudi Arabia, India, Vietnam, to name just a few. Countries like Botswana, Tunisia, Ecuador, Colombia, Kyrgyzstan, Ukraine, Georgia, and Albania received training on the creation of National Sample of Cities to monitor and report on SDG 11 and the method to aggregate national.[5]

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5   This is part of UNDESA DA 10 project that brings together 10 UN entities to support the monitoring of the SDGs implementation in developing countries through the strengthening of national and local capacities.

Some of these countries are already reporting and sharing urban data as evidenced in the Secretary-General's Annual Report of the SDGs and in the Voluntary National Reports. Yet, capacity building needs to be diversified and scaled up. To achieve this, more resources are needed to build strong data systems, aligned to new methods and definitions, with appropriate legal and institutional frameworks. This requires addressing numerous challenges such as the need to agree on a *global definition of cities, set up local data collection systems, advance on methods to disaggregate information, particularly gender and youth data, support countries to cope with the new demand of monitoring large numbers of cities or adopt the national sample of cities approach, strengthen capacities of NSOs and reinforce functional linkages among various levels of government.* Opportunities for mass data generation from alternative sources such as self-evaluation tools using mobile devices, community-based efforts, and the use of technology to enhance data generation and processing need to be integrated to this process.

Global baseline for Goal 11 targets

This section presents the baseline status for each target and related indicators using available data and proxy indicators in some cases. Ongoing initiatives from regions and country-specific reports are presented, highlighting opportunities and challenges, as well as best practices in data collection.
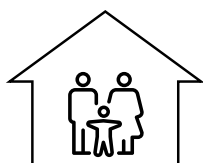
3 *billion people will need housing by 2030. while the proportion of the global urban population living in slums decreased from 28% to* **23%** *the absolute numbers of people living in slums increased, from an estimated 807 million people in 2000 to 883 million in 2015*

Housing.

The housing target is an improvement of the Millennium Development Goals. Its realization is part of basic human rights, and contributes to various economic, social and cultural aspects of development for individuals, households and communities. Inadequate housing impacts negatively on urban equity and inclusion, urban safety and livelihood opportunities, and causes negative health conditions.

The Target is measured by the notion of deprivation in three fundamental areas: slums, informal settlements and inadequate housing. Data is available from UN-Habitat's urban indicators database, but mostly limited to the slum and housing informality components. The Global Sample of Cities (200) provides information on the inadequate housing component, which was harmonized by experts using the housing affordability indicator, or 'share of the household income that is spent on housing costs'. According to updated data, while the proportion of the global urban population living in slums decreased from 28% to 23%, the absolute numbers of people living in slums increased, from an estimated 807 million people in 2000 to 883 million in

2014. As of 2018, conservative estimates place the population living in slums at 1 billion, with higher numbers recorded in the fast urbanizing sub-regions.

Equally important, housing affordability has become a global crisis affecting people in equal measures in low and high income countries. Over the past 50 years, housing prices in many high-income countries increased three times more than the price of other basic services.[6] In Africa, urban residents pay 55 percent more for housing than in other regions.[7]

Transport.

Transport and mobility are essential elements and preconditions for sustainable development in a globalized economy. Adequate transport infrastructure and affordable transport services are still widely lacking in many developing countries, hampering economic growth
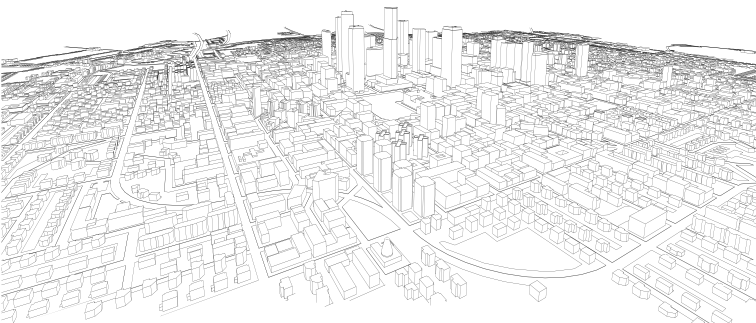
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6   International Monetary Fund – Global Housing Watch, 2018
7   World Bank. Africa's Cities: Opening Doors to the World (2018)

and poverty reduction efforts. Transport is a driver as well as a marker of economic development. Transport is the largest end-user of energy in developed countries and the fastest growing one in most developing countries.

Sustainable transport is a key ingredient for the achievement of most, if not all SDGs. Experts consider it should have four attributes: equitable in access, efficient, safe and climate responsive. However, the SDG indicator focuses only on convenient access. Global transport data has been collected for several domains ranging from usage, road networks, safety, transport fatalities, frequency of transport. Latest data from 38 countries from Asia, Europe, North America and LAC depict a general increase in the global public transport demand between 2001 and 2014, estimated at nearly one fifth. At the global level, the share of residential areas within walking distance of any arterial roads stands at 71 percent, with Sub-Saharan Africa and Oceania lagging at 53 percent and 61 percent respectively.

2017
the average rate of the physical expansion of cities remains about one and a half times that of population growth

Urban Sprawl.

Cities are rapidly expanding, with the rate of land consumption increasingly overtaking that of population growth rate. As of 2017, the average rate of the physical

expansion of cities remains about one and a half times that of population growth. The forces driving this urban expansion include, among others: population growth, rising per capita incomes, cheaper agricultural lands, efficient transport, and the proliferation of informal settlements, etc. Regions where city expansion is taking place at a quite high pace include Eastern and Southeastern Asia (6.9 per cent), Sub-Saharan Africa (5.1 per cent) and Central and Southern Asia (4.3 per cent). Empirical data collected over two-time periods, 1990-2000 and 2000-2014, is used to compare the percent change in cities' land area to the percent change in their population to obtain the ratio of land consumption to population growth. Note that whenever the value of this ratio is greater than one, the increase in urban land is greater than the increase in population and the new population takes up more land area per person than before, translating into a lower population density.

On average, the value of this ratio for many cities is increasing, but with regional variations. For example, this ratio is increasing for Western Asia and Northern Africa, Sub-Saharan Africa, Latin America, and East Asia and Oceania,) while the ratio is decreasing for South-Eastern Asia, Central and Southern Asia, Europe, North America and Japan (land-rich developed countries). In the Eastern and Southeastern sub-region, both the urban extent as well as the built-up areas grew on average at 7.2 per cent yearly. Over 80 per cent of the cities in this region have growths in urban extents as well as built-up areas at rates higher than the global average of all cities.

Urban governance and participation.

Effective urban planning relies on ensuring active participation of all urban stakeholders and renewed partnerships for continued innovation. Elections are the most common participation avenue for citizens followed by public hearings and public consultations, while participatory budgeting is the least utilized participation method.[8] This indicator is formulated with subjective definitions on issues such as 'direct participation', and the notion of 'operate regularly and democratically', and experts have proposed unified mechanisms with score cards to overcome this situation. Using proxy indicators, about 46 countries in all regions have data relevant to this indicator, covering activities such as public consultations, participatory budgeting, elections and local referenda, as well as protest and demonstrations, public hearings, neighborhood advisory committees, Town Hall meetings, formal petitions and social media campaigns. Data on participation varies a lot[9], but it has a demonstrated value to discuss public affairs and to take the most appropriate decisions based on consensus.

The contribution of culture to sustainable urban development is widely recognized, including the transversal role it plays in achieving the SDGs, and particularly Goal 11

Culture and Heritage.

The contribution of culture to sustainable urban development is widely recognized, including the transversal role it plays in achieving the SDGs, and particularly Goal 11. Similarly, the way urbanization is planned and managed has a direct impact on the protection and safeguards of the world's cultural and natural heritage. UNESCO Convention concerning the protection of the World Cultural and Natural Heritage as well as the Convention for the Safeguarding of Intangible Cultural Heritage are fully cognizant of this, and the importance that national and local authorities play in this process. In 2017, UNESCO Institute of Statistics (UIS) conducted a metadata survey on heritage expenditure to understand the extent of data availability worldwide to collect this indicator. The response rate of this survey was 32% with 66 out of 207 countries/territories responding.[10] Based on a preliminary analysis, many countries have public expenditure data but the amount of detailed data available to produce indicator 11.4.1 varies greatly.

Due to the various dimensions of information that this indicator collects (i.e. public/private expenditure; type of heritage; level of government; type of funding), the data for private expenditure

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8   There are however huge variations in the levels of participation for each activity per region. For example, while participatory budgetary scores least in the Australia and New Zealand sub-region, it is quite common in the LAC sub-region.

9   Eastern and South-Eastern Asia demonstrates more developed public participation mechanisms at the city level with a total score of 35 out of 50 maximum, followed by Australia and New Zealand (33 out of 50) while central and southern Asia scores least (21.92 out of 50), followed by Europe and North America (25.47).

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10 The response rate varies greatly between SDG's regions. Europe/North America and Northern Africa/Western Asia have the highest response rates with 59% and 38% respectively.

on heritage will be more limited. Initial results show that 71% of responding countries had at least one source of heritage data on public expenditure while only 29% of countries had a least one source of private heritage expenditure data. UNESCO, as custodian Agency, is refining the method of data collection and analysis, conducting several dedicated meetings, such as Culture and Sustainable Cities, World Heritage Committee meetings, the 9th World Urban Forum, and on a more continuous basis the UNESCO Creative Cities Network (UCCN).


Disaster risk reduction.

Experts have acknowledged that to establish a stronger connection between policy and related issues such as vulnerability and hazard characteristics, data should be collected by hazardous events with possible data disaggregation in every country

The interconnected nature of development and disasters is acknowledged in various development agendas, particularly the Sendai Framework for Disaster Risk Reduction 2015-2030, the 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change. Goals 1, 11, and 13 use indicators that are also linked to the Sendai Framework monitoring. However, the area of disaster related statistics is relatively new, with data being collected from multiple sources and with different criteria. Experts have acknowledged that to establish a stronger connection between policy and related issues such as vulnerability (sub-groups of population, affected areas etc.) and hazard characteristics, data should be collected by hazardous events with possible data disaggregation in every country. Yet, the accessibility to disaster data in a timely manner is a major concern, particularly

because of the dispersion of data sources among government offices and agencies which are originally from lower level of governments. This calls for renewed efforts by countries for training and capacity development on data collection, the creation of institutional arrangements, and thus more human and financial capacities and resources are required.

Working with other partners, UNISDR, as a custodian agency for the disaster risk reduction indicators of the SDGs, has been leading monitoring efforts in this direction, supporting Member States to develop national disaster loss databases based on official data, academic records, and other sources. UNISDR also continues to strengthen the capacity of local governments through the delivery of targeted training, together with affiliated partners. The Making Cities Resilient Campaign, launched in 2010, addresses local governance and urban risk and offers solutions and tools for local governments and actors to identify gaps in their resilience and to increase financial, technical and knowledge-based capacity for development planning and risk management.

Urban environmental management
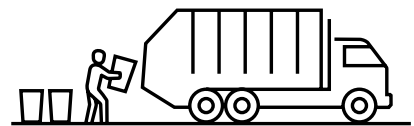
Urban Waste management.

Large and densely populated cities place significant pressures on public services, with poor waste management leading to negative side effects on health due to burning of waste leading to air pollution,

open dump fill sites and biodiversity degradation. Managing solid waste well and in a very affordable manner is one of the key global urban challenges. Investing in improved urban solid waste management (SWM) systems has positive effects in various SDGs and other global agendas. It is strongly connected to health, but also to poverty, since SWM's informal sector self-employment collection and recycling provides sustainable livelihoods to many families especially women.

Methodological work and definitions of concepts for this indicator were available prior to the SDGs, and progress was reported in several series of the global reports on Solid Waste Management[11]. Joint efforts led by UN-Habitat, UNSD and UNEP on methodology dissemination, capacity development, and development of databases is ongoing. Global data shows that cities are making progress in improving municipal waste management including relatively small cities with limited resources; but solid waste collection remains more efficient in high income countries.

Urban Air pollution.

Managing air pollution in urban areas directly supports several other SDG goals such as those on health, inequalities, etc. Air pollution can be defined as the

emission of harmful substances to the atmosphere. This broad definition therefore encapsulates many pollutants, including: Sulphur dioxide (SO_2), nitrogen oxides (NO_x), ozone (O_3), particulate matter (small suspended particles of varying sizes), carbon monoxide (CO) and volatile organic compounds (VOCs). Air pollution is today responsible for around 3.4 million deaths annually, affecting everyone, regardless of geography or social status and is indeed one of the global environmental challenge of the 21st century[12]. Studies indicate that in recent years' exposure levels have increased significantly in some parts of the world, particularly in rapidly industrializing countries with large populations.

Despite the advancements in technologies in monitoring of air pollution, there are still many gaps in global monitoring to better understand risks to human health and ecosystems. Since 2016, urban health initiatives such as the global breath life campaign or the climate and clean air coalition, have been promoted, with the involvement of WHO, UNEP, WB, UN-Habitat and various countries. For countries to develop efficient national systems global standards must be adopted with better monitoring across cities and within cities, and offer higher levels of disaggregation of information. Capacity development must address the hardware side and systems that process the collected data including support for creating central database facilities for air quality.

Safety in urban areas and public spaces

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11 UN-Habitat 2010: Global report on Solid Waste Management in the World's Cities.

12 The number of deaths resulting from outdoor air pollution increased from 3.4 million in 1990 to 4.2 million deaths in 2016.

UN-Habitat, has been working with partners in the standardization of the methodology for monitoring open public spaces. Data is now available for more than 300 cities across the world

Open public spaces.

Public spaces are a key component to urban functionality and promote development of healthy, productive urban ecosystems. Open spaces are broadly associated with several benefits such as increases in property values, retail activity multiplication, effective and efficient transportation and mobility, city attractiveness, enhanced safety, social cohesion, equality, health and well-being, etc. The integration of public space in local, regional and national policies and frameworks promoting sustainability is key to secure the provision of public goods and create more livable cities.

UN-Habitat, has been working with partners in the standardization of the methodology for monitoring open public spaces. Data is now available for more than 300 cities across the world.   Data on open public spaces are collected at the city level, and requires aggregating at national level. For this purpose, the use of a National Sample of Cities concept is recommended. Latest data shows that the expansion of cities in Europe, North America and Oceania has been accompanied by changes in land use, both in terms of form as well as structure. In these sub-regions, streets, as public spaces, lost their importance in terms of their share of land. Data has shown that the proportion of land allocated to streets between the city cores and suburbs, accounts for 25% and 15%, respectively. Most cities in Africa, Asia and Latin

America and the Caribbean allocate less than 15% of land to streets in the city cores and less than 10% in the suburbs.

Safety of urban spaces.

Safer cities enhance opportunities for work, investment, education, better cohesion, enjoyment of culture and recreation. Levels of safety in a city affect the level of accessibility and inclusivity, particularly for the vulnerable urban populations including women and children, older persons and persons with disabilities. People in safer cities enjoy the right to freedom of movement.

UN-Women, UN-Habitat, UNODC have been working with cities to ensuring that women and girls are socially, economically and politically empowered in public spaces that are free from sexual harassment and other forms of sexual violence.

To standardize data collection and reporting for the SDGs safety spaces related indicators, UNODC has developed the International Classification of Crime for Statistical Purposes (ICCS), which provides a standard classification of criminal offences enhancing the consistency and international comparability of crime statistics.[13] Available data from UNODC shows a decline in victimization related crimes across the world for the period 1995 – 2009, but with more recent data showing an upsurge. Studies in 11 African countries show that out of three victimization crimes, burglary is the most prevalent type of victimization crime, followed by assault, threats and robbery.

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13   Some of the types of crimes to be measured using the resultant tools include assault, rape, robbery, sexual exploitation, theft, burglary, among others.

Urban rural linkages and national urban policies.

Global campaigns have focused on support for positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning. National Urban Policies (NUP) guide urban and other territorial development, as articulated in the New Urban Agenda and under SDG target 11a. The distinction between urban and rural settlements has been an element of data disaggregation for most part of the history of settlement monitoring. A review of the indicator under SDG target 11a by experts working on regional development and national urban policy noted several challenges. Many noted that *"the indicator is difficult to measure, ambiguous and not suitable for strengthening national and regional development planning."* UN-Habitat work in the development of the National Urban Policy Database provides a global overview of the state of urban policy at the national level and serves the purpose of monitoring this indicator through four categories: Feasibility, Diagnosis, Formulation, Formulation and Monitoring and evaluation. Latest data from this database shows credible progress in national planning, with 150 countries developing national-level urban policies; of these, 73 are in the process of implementation, and 23 have reached the monitoring and evaluation phase. Regionally, Asia and the Pacific have the highest number of ongoing NUP formulation activities, followed by Africa and Europe and North America.

Finance and cooperation for sustainable buildings.

The construction industry has significant impact on material extraction, consumption of natural resources and human comfort. Globally, the industry is one of the largest users of energy, material resources, and water, and it is a formidable polluter. Target 11c is an important attempt to link the global aspirations to local actions in the construction industry, by focusing on construction materials and international assistance (financial and technical) to the least developed countries where actions (or lack of) in the industry have the highest cumulative impacts.

At the local level, there has been increasing interest among development actors and organizations about making building activities more sustainable, which entails: a) to be designed, built, renovated, operated or reused in an ecological and resource efficient manner; b) to be energy efficient, reducing emissions and mitigating noise.

Target 11c calls for countries to promote global cooperation by increasing the financial and technical support offered to the least developed countries in sustainable construction. Data is unavailable for this indicator, and so is the contribution of in-country investments, as well as other foreign direct investments linked to construction sector. Proxy indicators show that the construction sector may have indirectly benefitted from almost ten times capital injections compared to other development sectors.

Capacity development efforts

Goal 11 monitoring and reporting creates major challenges that other SDGs do not necessarily confront. NSOs need to coordinate with local authorities in the data collection process, including the integration of spatial information. Nearly 60% of Goal 11 indicators are to be collected locally, and this demands resources and efforts for the establishment of sound monitoring mechanisms. There are countries that are "data rich and ready to go", with solid systems and adequate human and financial capacities, producing already the necessary data on various indicators. There are also countries that do not have capacities or the systems to support local and national monitoring on specific urban indicators. Strengthening national and local capacities is therefore paramount to collect, analyze and disseminate data and information, including different forms of disaggregation, accompanied by spatial analysis, and the necessary mechanisms to aggregate urban data at country level. This requires partnerships, institutional coordination, adequate systems and monitoring and reporting frameworks. And for an effective implementation, it necessitates adequate governance structures and supportive frameworks; planning and management of urban and territorial spatial development, finance, innovations and capacity.

Mainstreaming gender, youth, persons with disability and culture in SDG 11 monitoring

Gender and youth mainstreaming is no longer an option, it is an imperative. Advancing the inclusion of persons with disabilities is critical for the achievement of Goal 11 target and indicators. SDG 11 indicators must be disaggregated based on these parameters, making mainstreaming of this data and information a monitoring requirement for policy purposes as opposed to an inclusion-at-will or optional undertaking. Equally, culture is a key driver for achieving several SDG targets and requires mainstreaming across several SDG indicators. UN custodian agencies supporting countries are deploying necessary efforts to ensure that SDG implementation is based on these normative commitments and strategic objectives, using harmonized frameworks, enhanced cooperation and institutional coherence. Mainstreaming requires intensified technical and financial investments to produce adequate statistics and a robust evidence base that is being supported for each one of the targets, as described in this Report.

Financing

Collaborative efforts need to be pursued to align large-scale investments with the principles and objectives of the many urban development agendas, and to improve the financial and institutional performance of cities. Goal 11 targets will require addressing a range of cross-cutting, routine and persistent challenges such as financing at the local and national levels, and establishing new partnerships for statistical data production systems, especially in the context of developing countries. At the indicator or target level, there is urgent need to address emerging challenges such as defining new concepts, building capacities internally and externally, and establishing new baselines. Countries and other international agencies are exploring ways to address these challenges by involving various actors, processes and types of governance, alternative sources of finance and encouraging collaboration and cooperation across

stakeholders, sectors and regions. The pace and depth of addressing these challenges is reflected in the status of the Goal 11 indicators classification according to the Inter-Agency Expert Group on SDGs- where Goal 11 still has several indicators classified Tier III category amidst a scarcity of resources to test or pilot the fully developed methodologies in many countries.

Partnerships

Partnerships are at the core of the success of many targets under Goal 11. UN Agencies are developing common frameworks, business collaboration mechanisms and guidelines to promote the active involvement of stakeholders and different forms of partnership. SDG monitoring processes involve linkages with other global agendas, and there is need to mobilize decision makers, politicians and leaders based on the joint challenges, emerging opportunities and shared policy implications.

SDG 11 targets and indicators require new partnerships at the local, national and global levels to succeed. At the global level, new partnerships have been established with non-traditional stakeholders such as space agencies, universities, private sector and civil society, with the aim of enhancing the reach and possibilities of scaling up implementation and global monitoring efforts. At country level, harmonizing of efforts and matching country support plans and strategies by custodian agencies, regional commissions and partners have been priority in the first 3 years, working with scarce resources. At local level, coordination mechanisms have been formalized involving all data producers and users, revising mandates, roles and responsibilities, and creating more structured governance frameworks in the production and use of local information with the participation of various development partners, including NSOs, urban observatories, local authorities and service providers. Although the breadth and depth of partnership is expanding, its effectiveness for the next years will depend on the ability to manage and share knowledge and expertise about issues, processes and solutions at various levels.

Recommendations

The 2030 Agenda for Sustainable Development alongside the 2016 New Urban Agenda offer a renewed opportunity for the global community to address several global urban challenges associated to growing inequalities, social exclusion, extreme poverty, high unemployment, particularly among women and youth, and the increase in disaster and climate risk. Goal 11 and other urban components of the SDGs can address persistent problems related to the sprawl of cities, the proliferation of slums, the vulnerability of populations, and the poor conditions of the urban environment. The agenda is clear: need of affordable housing, better transport, good air quality, efficient waste management, adequate public spaces, enhanced participation, resilience of cities and disaster risk reduction, among others. All these indicators require sufficient planning and resilient strategies which is largely articulated in the need to have well informed national urban policies.

Important progress has been made with targets that now have reliable baselines to work with, and better methods for monitoring. Still, a major obstacle is agreeing global what constitutes 'urban' and the 'city' as units of analysis; otherwise comparability in various indicators that have a spatial component would be seriously compromised. A clear recommendation that emanates from this study is to adopt a functional statistical definition of what constitutes the city and its boundaries. This will help to standardize values and harmonize results to prevent technical inconsistences.

Secondly, a unique challenge for Goal 11 indicators is the need to collect local city data and information prior to countries aggregating the national level performances. The creation of these national aggregates in a consistent manner is not an easy task, and without a proper method, it is very likely that national, regional and global values would be difficult to produce in a more systematic way and with comparable standards. Countries with numerous cities, and those with limited human resources and funds, need to adopt various strategies to cope with large data demands. The National Sample of Cities (NSC) approach developed by UN-Habitat, is a recommended solution. If adopted by countries, NSC offers the low-cost option of monitoring fewer representative sets of cities consistently overtime, and the ability to seamlessly report national level performances of their cities.

Good data needs to be disaggregated to cater to the needs of different groups and the special attention they require. IAEG-SDGs has included an overarching principle on how data should be disaggregated by income, sex, age, race, ethnicity, migratory status, disability and geographic location. UN Agencies and partners have advanced in principles, norms and standards and the identification of gaps. However, it is recommended to prepare training modules on the collection of disaggregated information and related techniques, as well as in the analysis and use of disaggregated data. It is also suggested to advance in the institutional machinery for better coordination and to foster dialogue between policymakers and statisticians.

The local dimension of development has been recognized by Member States in all major declarations and global agendas. City leaders, local and regional government networks are already developing global, regional and national systems for localization as they work towards contributing to awareness raising, alignments to work plans, learning exchanges and local monitoring and reporting. UN-Habitat and all custodian agencies involvement in Goal 11 are committed to supporting the SDGs localization efforts. At the indicator levels, there has been increased data from countries being reported directly to global urban databases. UN-Habitat's City Prosperity Initiative has over 450 cities with 72 urban indicators data points available, and this has been complimented by other global data from 200 cities from the Global sample of cities. The growth of this large set of cities data has offered a platform to study the systems of cities in countries and across regions within several indicators, helping city mangers to assess the urban policy implications at the national or regional levels that go beyond the silo assessments of the single urban indicators. The adoption of the CPI as a local monitoring platform contributes to integration of the different SDGs urban indicators to address, in a structured manner, the environmental, social and economic components of sustainability.

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