Using Data for Sustainable Cities and Local Governance

Guide to the CityNet Sustainable Cities Questionnaire

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Overview

This guidebook serves to introduce a questionnaire based on an innovative endeavor to compile a set of indicators that are relevant to cities to accelerate local efforts to achieve the Sustainable Development Goals (SDGs). Depending on the circumstances and conditions specific to each city, relevant indicators that may be useful to consider for measuring performance may differ. Consequently, we provide a database of indicators for each SDG, which is represented by each file. Since CityNet invites areas that have more than 100,000 inhabitants as its members, indicators included in the database take into account activities that are more pertinent to such size of the city.

This questionnaire serves to facilitate local assessments on ongoing efforts to achieve the United Nations (UN) Sustainable Development Goals (SDGs). The ambitious scope of 17 global goals challenges complete and effective data collection, analysis and publication by UN member states. Therefore, we provide a simplified city-level SDG assessment questionnaire, which comprises indicators that are relevant for CityNet member cities. Currently, officially recognized indicators from the UN Statistics Division presume data collection at the national level. Thus, we provide an enhanced version at the city-level by supplementing indicators that incorporate key features of cities from other internationally recognized sources, such as the World Bank's Urban Sustainability Framework, U4SSC's Indicators for Smart Sustainable Cities and UN Habitat's City Prosperity Index (see *References* for the complete list).

Description of Ten Themes of the CityNet Questionnaire

In this questionnaire, the 17 Sustainable Development Goals are re-categorized into the following 10 themes:

- Poverty & Hunger Reduction, Food Security
- Health
- Education
- Social Inclusion
- Water and Sanitation
- Energy
- Economy and Jobs
- Transportation
- Urban Environment
- Governance and Finance

Description of each theme is provided in the below Table 1.

Table 1. Ten themes of CityNet Sustainable Cities Questionnaire

Poverty & Hunger Reduction, Food Security Relevant SDGs: 1,2	Although the order of SDGs does not signify importance, "Ending poverty in all its forms everywhere" continues to be a key task for the international community. The importance of combating poverty cannot be emphasized enough as it is the fundamental task of cities across the world. While food is an essential requirement for human life, most cities do not produce food, thus are not able to sustain themselves and are prone to food shortages. This can hinder the abilities of individuals and the communities as a whole to meet other basic needs, especially among the urban poor. Topics addressed: Poverty, Housing, Hunger
Health Relevant SDGs: 3	Achieving health ensures that a healthy population not only enjoys a good quality of life, but also contributes to the economy. Public health services help manage a range of health risks, such as epidemics to protect the basic livelihoods of local residents. In addition, provision of green spaces and recreational facilities by the local government may encourage residents to pursue a healthy lifestyle, increasing the overall satisfaction of life. Topics addressed: Maternal health and child mortality, Communicable diseases, Healthy environment
Education Relevant SDGs: 1, 4, 8.	Education is an enabler of sustainable development. It provides increased livelihood opportunities, thereby reducing poverty and inducing economic progress at both the national and local level. Furthermore, education may facilitate development by spurring innovation in different segments of society. Equal access to education, regardless of gender, race, and nationality, provides a foundation for members of its society to reach their fullest potential. Topics addressed: Pre-school education, Basic education, Higher education, Adult literacy and numeracy skills

Social Inclusion Relevant SDGs: 5, 10	Disparities in income, livelihood opportunities, surrounding environment, access to basic social and physical infrastructure may impede social cohesion and integration across city populations. Bottom-up and top-down endeavors to achieve social inclusivity, overriding divisions by race, gender, class, generation, geography, and other identities, are both essential to engender safe, diverse and equal communities. Topics addressed: Equal opportunity, Marginalized groups, Safety, Participation, ICT, Economy
Water and Sanitation Relevant SDGs: 6	Ensuring accessibility to safe water sources is the basic foundation to achieve poverty reduction and improve a city's living conditions. Inadequate management and supply of water may trigger irreversible results, stripping the residents of opportunities to engage in economic activities. Accessible water sources can also reduce the time spent on obtaining water sources to be reallocated to productive activities such as education. Moreover, sanitation of cities is essential to protect against epidemics and environmental degradation. Topics addressed: Accessibility, Resource management
Energy Relevant SDGs: 7	Energy is the fuel for economic activities of cities, which are likely to be the main consumer of the nation's energy sources due to large amounts of population and concentration of economic activities. However, there is a limited amount of energy, and without efficient management, cities will fail to provide their residents with the foundation of modern city activities. Cities must also consider the environmental effect of energy usage as it is the main source of GHG emission if fossil fuel sources are utilized. Overall, energy must be managed to deliver affordable, reliable, safe and clean development to all residents. Topics addressed: Energy supply, Clean energy, Energy efficiency
Economy and Jobs Relevant SDGs: 8, 9	Urban economies are created from the massive labor, resource and knowledge pool a city provides. The agglomeration of diverse ideas and rich infrastructures provides an engine for local, regional and national economic development. To maintain growth, cities must remain competitive and attractive to retain investments and workforce. Therefore, environmentally sustainable and inclusive economic structure and business-friendly environment are essential components for a healthy city. Topics addressed: Economic performance, Environmentally sustainable economy, Economic structure, Business climate and entrepreneurship, Labor force, Livelihood opportunities, Inter- ,intra-, and global connectivity

Transportation Relevant SDGs: 11, 9	Transportation is an enabler of urban economic activities. However, it may also become an obstacle if not managed in the correct ways. The loss of lives due to traffic accidents, increasing economic gaps due to inaccessibility, waste of time spent on congested roads, and massive amounts of GHG emitted from vehicles are all examples of problems posed by the transportation sector. Topics addressed: Safety, Affordable, accessible and sustainable systems, Infrastructure
Urban Environment Relevant SDGs: 11, 12, 13, 14, 15	The quality of the living environment determines the growth potential of a city. The urban environment not only consists of managing the natural environment, but also of efficiently dealing with residues from industrial activities such as greenhouse gas and solid waste. A healthy ecosystem provides natural air filters, flood preventions, and supports for food production. However, poor air quality is quite common in cities, increasing the incidents of respiratory diseases. Uncontrolled waste disposal puts pressure on the finite resources and degrades land, water and air. All these factors combined will determine the attractiveness of the city, affecting economic activities, such as tourism and cultural, recreational and spiritual benefits of the city residents. With mounting threats of climate change induced natural disasters, cities must be prepared to prevent expected ones through proficient management of city activities, while also prepared to adapt to changes through resilience building, especially in the poorest areas. Topics addressed: Disaster Risk Management, Ecosystems and Biodiversity, Waste Management, Culture, and Climate Change Adaptation
Governance and Finance Relevant SDGs: 16, 17	Effective governance and concrete financing strategies enable cities to coordinate public resources and deploy policies, laws and regulations to tackle urban challenges. Sound institutional arrangements and fiscal sustainability are essential to execute city's development plans and actualize measurable progress. Topics addressed: Accountability and Transparency, Creditworthiness, Revenue, Financial autonomy, Expenditure management, and Debt and obligation management

*Note: 'Relevant SDGs' indicate major SDGs relevant to the theme for the sake of facilitating making connections, and do not limit themes from including indicators more relevant to other SDGs.

Using the Questionnaire

<u>Basic/Advanced</u>
Taking into consideration cities' varying levels of local data availability, this questionnaire categorizes questions into *basic* or *advanced*(*) ones. Basic questions ask for commonly available indicators in order to allow comparison of one city to another, and are thus relevant to all cities. Advanced questions may not be relevant to certain cities due to particularities of city characteristics and/or complexities in data collection and assessment.

<u>Sub-category</u>
Some questions may include additional questions that are categorized into sub-categories, which were created to enhance legibility and help assess cities' response capabilities. Additional questions are often classified as advanced questions. The numbering structure of multi-level questions (as shown in Table 2) is as follows:

1. (main question)
    a. (sub-question)
        i. 2nd sub question

<u>SDG Tier</u>
 The tier classification is based on the publication of the Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs). All SDG indicators are classified according to the level of methodological development and the availability of public data. The tier definitions provided by the IAEG-SDGs are as follows[1]:

Tier 1: Indicator is conceptually clear, has an internationally established methodology and standards are available, and data are regularly produced by countries for at least 50 percent of countries and of the population in every region where the indicator is relevant.

Tier 2: Indicator is conceptually clear, has an internationally established methodology and standards are available, but data are not regularly produced by countries

The tier classification is included in the questionnaire to assess the importance of the target by reviewing the level of data collected at a global level, and to assess the difficulties the cities may have in answering the questions.

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[1] We follow the most recent two-level tier classification that was approved in the 51st session of the UN Statistical Commission. While the three-level tier classification included Tier 3 (No internationally established methodology or standards are yet available for the indicator, but methodology/standards are being (or will be) developed or tested), the Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs) concluded that through revisions of indicators and advancements in assessments the global indicator framework does not contain any Tier 3 indicators.

Table 2. Numbering convention

Theme	SDG Target	SDG Tier	Topic	Basic or Advanced	Number
Poverty & Hunger Reduction, Food Security	1,2, etc.	1 2	Poverty, Housing, Hunger, Food security	(blank): Basic *: Advanced	1. a. i. 2. ⋮
Health	3, etc.		Maternal Health and Child Mortality, Communicable Diseases, and Healthy Environment		
Education	1, 4, 8, etc.		Pre-school Education, Basic Education, Higher Education, and Adult Literacy and Numeracy Skills		
Social Inclusion	5, 10, etc.		Equal opportunity, Marginalized groups, Safety, Participation, ICT, Economy		
Water and Sanitation	6, etc.		Maternal Health and Child Mortality, Communicable Diseases, and Healthy Environment		
Energy	7, etc.		Energy Supply, Clean Energy, Energy Efficiency		
Economy and Jobs	8, 9, etc.		Economic performance, Environmentally sustainable economy, Economic structure, Business climate and entrepreneurship, Labor force, Livelihood opportunities, Inter- ,intra-, and global connectivity		
Transportation	11, 9, etc.		Safety, Affordable, accessible and sustainable systems, Infrastructure		
Urban Environment	11, 12, 13, 14, 15, etc.		Disaster Risk Management, Ecosystems and Biodiversity, Waste Management, Culture, and Climate Change Adaptation		
Governance and Finance	16, 17, etc.		Accountability and Transparency, Creditworthiness, Revenue, Financial autonomy, Expenditure management, and Debt and obligation management		

Indicators behind the Questionnaire

Since many of the indicators chosen to measure progress on SDGs tend to be at the national level, there has been a growing effort to provide comparable indicators at the city level. To inform what types of indicators have been suggested by various entities, we include the source of indicators in each SDG file. Below is a list of sources, other than the official UN indicators, used in the creation of the database. Specific methods used to collect data and compute indicators are described in Section **.

- Key Performance Indicators (KPIs) for Smart Sustainable Cities developed by the United for Smart Sustainable Cities (U4SSC)
  - Indicators included are categorized into three dimensions - Economy, Environment and Society and Culture - and sub-dimensions and categories at two levels (core and advanced).
  - The following organizations have taken part in the development of the KPIs: CBD, ECLAC, FAO, ITU, UNDP, UNECA, UNECE, UNESCO, UN Environment, UNEP-FI, UNFCCC, UN-Habitat, UNIDO, UNU-EGOV, UN-Women and WMO.
- City Prosperity Index by the UN-Habitat
  - Indicators are categorized into six dimensions - productivity, infrastructure development, quality of life, equity and inclusion, environmental sustainability, governance and legislation - and sub-dimensions at two levels (basic and extended).
  - Takes into consideration survey responses of experts in developing countries conceptualizing prosperity and identifying its critical components
- OECD localized indicator framework for Sustainable Development Goals
  - Only indicators with data available were included in this work
  - Developed from an 18-month policy dialogue with stakeholders within the OECD Programme A Territorial Approach to the SDGs and insights derived from nine pilot cities and regions.
- European Voluntary Local Review
  - Indicators are largely applicable to the developed country context
  - Based on SDGs and European domestic institutions
- Covenant of Mayors
  - Indicators from only the available cities were included in this work
  - Based on each member city's local initiatives of the Covenant of Mayors

This work has reviewed various works, other than those cited above. The 'City of Los Angeles data for Sustainable Development Goal indicators' is an exemplary work that was taken into account when selecting original indicators (and if necessary revising) appropriate for city-level use.[2] Other major works consulted include United Nations Economic Commission for Europe's (UNECE) publications on Voluntary National Reviews by its member states[3] and International Telecommunication Union's (ITU) Strategic Plan for the Union for 2020-2023.[4]

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[2] https://sdgdata.lamayor.org/
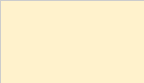[3] https://www.iges.or.jp/en/projects/vlr
[4] https://www.itu.int/en/council/planning/Documents/ITU_Strategic_plan_2020-2023.pdf
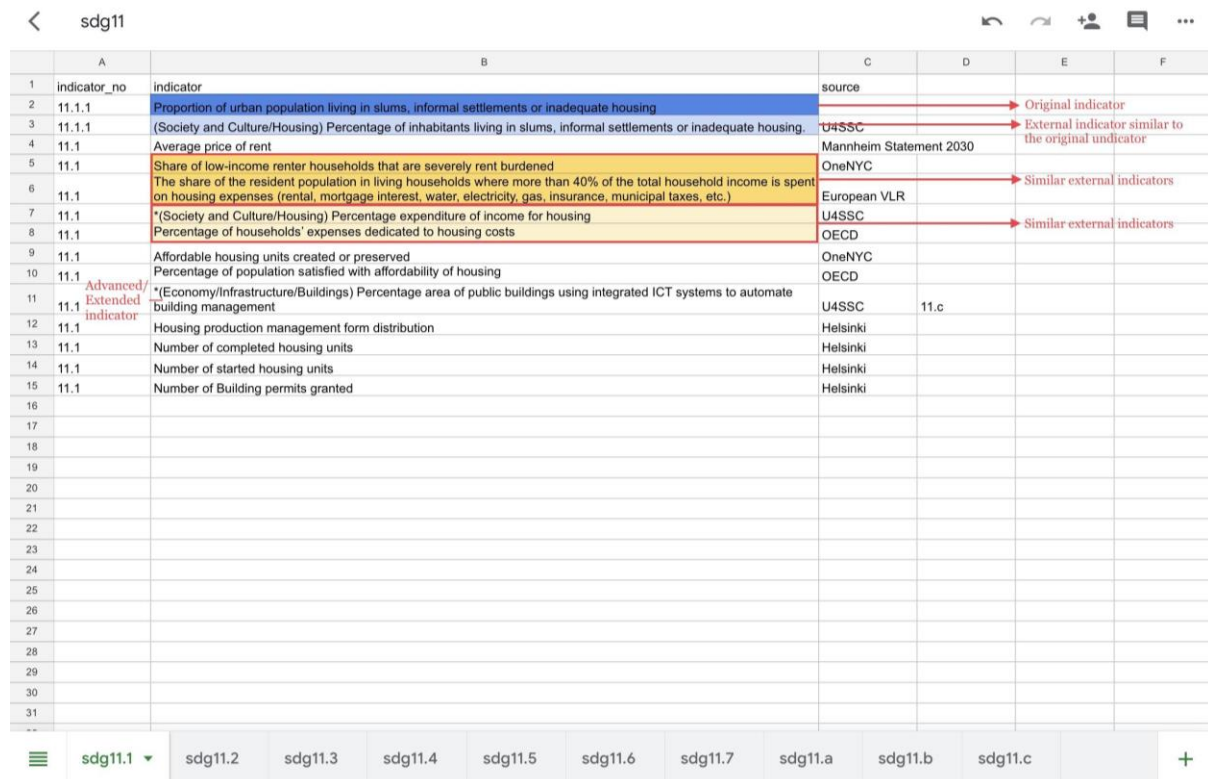
Technical Notes on Each SDG Indicators

On Viewing Each SDG File

The following color coding is used to support users' understanding of the compiled indicators:

Color	Definition
	Original indicators (official UN indicators)
	External indicators (indicators from reference sources)
	External indicators that are exactly or nearly the same as one another

Indicators from U4SSC and UN-Habitat are divided into core/basic and advanced/extended indicators. Cities are expected to report on all core/basic indicators (measure measure general performances) and, if capable, on advanced/extended indicators (measure progress on advanced initiatives). Advanced indicators are indicated with a star(*) in front of the text.

Image 1. Sample SDG file

Indicators for Inter-connected SDGs

It is recommended that all indicators, particularly repeating indicators (indicators applying to multiple targets), are interpreted in accordance to the context of the specific goal and target. Repeating indicators (indicators applying to multiple targets) are listed in *Table 1*. Note that not all but only representative repeating indicators are included in the Table. CityNet accepts wider or narrower interpretations on this matter. Please note the color coding below.

Color	Definition
	Indicators from same goals but different targets
	Indicators from different goals

Table 1. Repeating Indicators

Source	Indicator	Target 1	Target 2	Target 3
U4SSC	(Society and Culture/Social inclusion) Percentage of inhabitants living in poverty	1.1.1	1.2	
European VLR	The number of people who experience homelessness	1.1	1.4	
OneNYC	Poverty-rate disparity between immigrant and locally-born households	1.2.2	10.2	
U4SSC	(Society and Culture/Safety) Number of natural disaster related deaths per 100,000 inhabitants	1.5.1	13.1.1	
U4SSC	(Society and Culture/Safety) Percentage of inhabitants living in a zone subject to natural hazards	1.5.1	11.B	
U4SSC	(Society and Culture/Food security) Percentage of local food supplied from within 100 km of the urban area.	2.C	2.4	
UN Habitat	PM2.5 Concentration. Annual mean concentration of particulate matter of less than 2.5 microns (PM2.5) in cities	3.9.1	11.6.2	
UN Habitat	*CO2 Emissions. Total amount of CO2 emissions in a year	3.9.1	11.6.2	
U4SSC	*(Society and Culture/Social inclusion) Percentage of pre-school age children (0-3) covered by (public and private) day-care centres	4.2	5.5	10.4

Helsinki	Results of matriculation examinations	4.6	4.3.1	
U4SSC	(Society and Culture/Education) Percentage of students with classroom access to ICT facilities	4.4.1	4.a.1	5.b
UN Habitat	(Equity and Social Inclusion/Gender inclusion) Equitable Secondary School Enrollment. Ratio between male to female enrolment in secondary school	5.1	4.3	
OECD	Gender gap in tertiary education (percentage points)	5.1	4.3	
OECD	Gender gap in the rate of early leavers (percentage points)	5.1	4.3	
OneNYC	Amount awarded to city-certified Minority- or Women- Owned Business Enterprises (M/WMBEs), including subcontracts	5.5.2	8.5	
OneNYC	Total number of Minority- or Women- Owned Business Enterprises (M/WMBEs) certified	5.5.2	8.5	
U4SSC	*(Economy/Infrastructure/Buildings) Percentage area of public buildings with recognized sustainability certifications for ongoing operations	7.3	11.3	
U4SSC	(Society and Culture/Social inclusion) Ratio of average hourly earnings of female to male workers	8.5.1	8.6	
U4SSC	(Economy/Employment) Percentage of the city youth labour force that is unemployed	8.5.2	8.6	
OneNYC	Flood insurance enrollments, using January 2019 National Flood Insurance Program (NFIP) policies in force as a baseline	8.10	13.1	
European VLR	The number of start-ups with over 1,000 inhabitants.	9.3	8.3	
OneNYC	Department of Design and Construction construction projects completed early or on time	9.1	9.4	
European VLR	[Population with migrant background] The number of residents by origin according to country, continent, and EU vs. non-EU origin. (Target 10.2 and 10.7)	10.2	10.7	
European VLR	[Gini index] The extent to which the distribution of income after taxes and transfers deviates from a perfectly equal distribution	10.2	10.4	
OECD	Gini index of disposable income (after taxes and transfers) (from 0 to 1)	10.2	10.4	

U4SSC	*(Economy/Infrastructure/Buildings) Percentage area of public buildings using integrated ICT systems to automate building management	11.1	11.c	
U4SSC	*(Economy/Infrastructure/Buildings) Percentage area of public buildings with recognized sustainability certifications for ongoing operations / 7.3	11.3	7.3	
U4SSC	The number of deaths, missing and directly affected persons attributed to disasters per 100,000 people.	11.5.1	13.1.1	
U4SSC	(Environment/Air quality) Greenhouse gas (GHG) emissions per capita	11.6	13.2.1	
U4SSC	(Economy/Infrastructure/Waste) Percentage of households with regular solid waste collection	11.6.1	12.4.2	
U4SSC	*(Economy/Infrastructure/Urban planning) Existence of urban development and spatial planning strategies or documents at the city level	11.a.1	11.3	
U4SSC	(Society and Culture/Safety) Percentage of inhabitants living in a zone subject to natural hazards /1.5	11.b	1.5	
U4SSC	*(Environment/Public space and nature) Percentage of city area protected as natural sites	15.1.2	15.B.1	14.5
U4SSC	(Society and Culture/Safety) Violent crime rate per 100,000 inhabitants	16.1	16.3.1	
U4SSC	(Society and Culture/Safety) Violent crime rate per 100,000 inhabitants	16.1	16.3.1	
U4SSC	*(Economy/Public sector) Number of public services delivered through electronic means	16.6	16.10	
U4SSC	*(Economy/Public sector) Percentage of public sector procurement activities that are conducted electronically	16.6	16.10	
U4SSC	*(Economy/Public sector) Percentage and number of inventoried open datasets that are published	16.6	16.10	
OneNYC	Amount of open Application Programming Interfaces (APIs)	16.6	16.10	
U4SSC	(Society and Culture/Social inclusion) Percentage of the eligible population that voted during the last municipal election / 11.3.2	16.7	11.3.2	
UN Habitat	The share of people who vote in a municipal election over the total eligible population.	16.7	11.3.2	
OECD	Voter turnout	16.7	11.3.2	
OneNYC	Voter turnout rate in local elections	16.7	11.3.2	

OneNYC	Use of public computer centers	17.6.2	17.8.1	
OneNYC	Neighborhoods with a zone that has three or more options for commercial fiber optic service	17.6.2	17.8.1	
OneNYC	Local households with a residential broadband subscription	17.6.2	17.8.1	
OneNYC	Local households with three or more residential broadband provider options	17.6.2	17.8.1	
OECD	Percentage of households with broadband internet access	17.6.2	17.8.1	
OECD	Percentage of houses and buildings connected to optical fibre	17.6.2	17.8.1	
U4SSC	(Economy/ICT) Percentage of households with fixed (wired) broadband	17.6.2	17.8.1	
OneNYC	Neighborhoods with a commercial corridor served by free public Wi-Fi	17.8.1	9.c.1	
U4SSC	(Economy/ICT) Wireless broadband subscriptions per 100,000 inhabitants	17.8.1	9.C.1	5.B.1
U4SSC	(Economy/ICT) Percentage of the city served by wireless broadband (3G and 4G)	17.8.1	9.C.1	5.B.1

Cross-cutting Themes among UN Official Indicators

UN official indicators that are used for different goals but cover similar issues are noted in Table 2 for reference.

Table 2. Original indicators on similar themes

Theme	Target /Indicator No.	Target/Indicator
Air quality	3.9.2	Mortality rate attributed to household and ambient air pollution
	11.6.2	Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)
Damage by disasters	1.5.1	Number of deaths, missing persons and persons affected by disaster per 100,000 people
	13.1.1	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population
ICT coverage	9.C.1	Percentage of population covered by a mobile network, by technology.
	5.B.1	Proportion of individuals who own a mobile telephone, by sex
	17.8.1	Proportion of individuals using the Internet.
	17.6.2	Fixed Internet broadband subscriptions per 100 inhabitants, by speed
Material footprint	8.4.1	Material footprint, material footprint per capita, and material footprint per GDP
	12.2.1	Material footprint, material footprint per capita, and material footprint per GDP
Public sector decision making	11.3.2	Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically.
	16.7.2	Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group
Risk reduction strategies	1.5.3	Number of countries with national and local disaster risk reduction strategies
	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

Small and medium enterprises	8.3	Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.
	9.3	Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets.
Transport	9.1	Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.
	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
Violence	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
	16.1.3	Proportion of population subjected to (a) physical violence, (b) psychological violence and (c) sexual violence in the previous 12 months

A list of original indicators measuring national-level performances that have been revised to measure city-level performances is shown in Table 3. Note that desired directions of the indicator may be positive or negative, depending on the context. Examples are as follows:

Direction	Indicator
Positive	Average disposable income per day of the first quintile (equivalised household, in USD PPP, constant prices of 2010)
Negative	Percentage of population with a disposable income below the 60% of national median disposable income

Table 3. Original Indicators revised for the city-level use

Original	Reworded Version
1.5.3 Number of countries with national and local disaster risk reduction strategies	Existence of local disaster risk reduction strategies
5.6.2 Number of countries with laws and regulations that guarantee women aged 15-49 years access to sexual and reproductive health care, information and education	Existence of local regulations that guarantee women aged 15-49 years access to sexual and reproductive health care, information and education
8.8.2 Level of national compliance with labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status	Level of local compliance with labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status
8.b.1 Existence of a developed and operationalized national strategy for youth employment, as a distinct strategy or as part of a national employment strategy	Existence of a developed and operationalized local strategy for youth employment, as a distinct strategy or as part of a national employment strategy
10.7.2 Number of countries with migration policies that facilitate orderly, safe, regular and responsible migration and mobility of people	Existence of local migration policies that facilitate orderly, safe, regular and responsible migration and mobility of people
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	Existence of local urban policies or regional development plans that (a) respond to population dynamics; (b) ensure balanced territorial development; and (c) increase local fiscal space
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	Number of local cases of disaster risk reduction strategies implementation in line with the Sendai Framework for Disaster Risk Reduction 2015–2030
12.1.1 Number of countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or target into national policies	Existence of sustainable consumption and production (SCP) local action plans or SCP mainstreamed as a priority or target into local policies

12.2.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	Local material consumption, local material consumption per capita, and local material consumption per GDP
12.4.1 Number of Parties to international multilateral environmental agreements on hazardous, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement	Number of locally ratified multilateral environmental agreements on hazardous, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement
12.5.1 National recycling rate, tons of material recycled	Local recycling rate, tons of material recycled
12.7.1 Number of countries implementing sustainable public procurement policies and action plans	Implementation of sustainable public procurement policies and action plans at the local level
13.1.2 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030	Local adoption and implementation of national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030
13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)	Local establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a local adaptation plan, locally determined contribution, local communication, biennial update report or other)
13.3.1 Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula	Local integration of mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula
13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions	Local-level experience of strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions
13.b.1 Number of least developed countries and small island developing States that are receiving specialized support, and amount of support, including finance, technology and capacity-building, for mechanisms for raising capacities for effective climate change-related planning and management, including focusing on women, youth and local and marginalized communities	City receives specialized support, and amount of support, including finance, technology and capacity-building, for mechanisms for raising capacities for effective climate change-related planning and management, including focusing on women, youth and local and marginalized communities
14.6.1 Progress by countries in the degree of implementation of international instruments	Progress by city in the degree of implementation of national instruments aiming

aiming to combat illegal, unreported and unregulated fishing	to combat illegal, unreported and unregulated fishing
14.c.1 Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources	Local-level progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources
15.6.1 Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits	Adoption of legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits at the local-level
15.8.1 Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species	Adoption of relevant local legislation and adequately resourcing the prevention or control of invasive alien species
16.10.2 Number of countries that adopt and implement constitutional, statutory and/or policy guarantees for public access to information	Adoption and implementation of constitutional, statutory and/or policy guarantees for public access to information
16.a.1 Existence of independent national human rights institutions in compliance with the Paris Principles	Existence of independent local human rights institutions in compliance with the Paris Principles
17.5.1 Number of countries that adopt and implement investment promotion regimes for least developed countries	Extent of adoption and implementation of investment promotion regimes for less developed cities
17.14.1 Number of countries with mechanisms in place to enhance policy coherence of sustainable development	Existence of local mechanisms to enhance policy coherence of sustainable development
17.15.1 Extent of use of country-owned results frameworks and planning tools by providers of development cooperation	Extent of use of country-owned or locally-owned results frameworks and planning tools by providers of development cooperation
17.16.1 Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals	Extent of reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals
17.18.1 Proportion of sustainable development indicators produced at the national level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics	Proportion of sustainable development indicators produced at the local level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics
17.18.2 Number of countries that have national statistical legislation that complies with the Fundamental Principles of Official Statistics	Existence of local statistical legislation that complies with the Fundamental Principles of Official Statistics
17.18.3 Number of countries with a national statistical plan that is fully funded and under implementation, by source of funding	Existence of local statistical plan that is fully funded and under implementation, by source of funding

17.19.2 Proportion of countries that (a) have conducted at least one population and housing census in the last 10 years; and (b) have achieved 100 per cent birth registration and 80 per cent death registration	Proportion of cities that (a) have conducted at least one population and housing census in the last 10 years; and (b) have achieved 100 per cent birth registration and 80 per cent death registration

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