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Report of the United Nations Human Settlements Programme on human settlements statistics

Note by the Secretary-General

In accordance with Economic and Social Council decision 2018/227 and past practices, the Secretary-General has the honour to transmit the report of the United Nations Human Settlements Programme (UN-Habitat) on human settlements statistics which is presented to the Commission for discussion. It presents progress led by United Nations Human Settlements Programme in the field of human settlements statistics collection and compilation methods and on development of methodologies and advancements in data collection and reporting on selected human settlements indicators relevant to SDG's. Recommendation on improving monitoring and reporting on human settlement indicators for national statistical offices is highlighted.

The Commission is invited to endorse the national sample of cities methodology for countries that are constrained with the national monitoring and reporting on all their cities; endorse the establishment of the Group of experts for the revision of Guidelines and Principles for the implementation of City Prosperity index measure; endorse the establishment of the Group of experts for the development of Guidelines for identifying slums; comment on challenges related to the definition of cities; and comment on the coordination mechanism for work on human settlements statistics at the international level. Points for discussion by the Commission are contained in paragraph 49 of the report.

* E/CN.3/2019/1.

I. Introduction

1. At its 45th session, held from 4 to 7 March 2014, the Statistical Commission took note of the report of the Secretary-General on Human settlements statistics (E/CN.3/2014/17), in which the Secretary-General summarized advances in a methodology developed by UN-Habitat and partners to measure security of tenure in a consistent manner across countries and regions. Further work on this methodology led to the refinement of the Global Land Indicators Initiative guides, timely reporting on the plight of slum dwellers, and improved global monitoring of access to urban basic services.

2. The present report provides an overview of the activities carried out since 2014, including refinements for several methodologies connected to global monitoring of the urban related sustainable development goals which are available as part of a synthesis report on Sustainable Development Goal 11[1]. More of the methodological work is featured in the report on implementation of the New Urban Agenda (NUA)[2], the progress of methodological work for urban indicators, the consultative workshops on human settlements Statistics, the advancement of the application of the framework for national sample of cities and City Prosperity Initiative (CPI) by countries worldwide, related regional training and capacity-building activities, data-collection activities and advocacy.

II. SDGs and Human Settlements Statistics

3. Since the submission of the report on Human Settlements Statistics, the global community has embraced several urban related agendas with the most notable ones being the New Urban Agenda (NUA)[3] and the 2030 Agenda for Sustainable Development and its associated global indicator framework, leading to the expansion of the scope and breadth of global human settlements statistics within the whole statistical system. This has also helped to promote the engagement of a wider range of data producers and users around human settlements indicators.

4. The NUA and SDGs emphasize the need to ensure that progress reports are based on an analysis of the activities of national, sub-national, and local governments' levels, as well as analysis from reports of UN-Habitat, other relevant entities of the United Nations system, relevant stakeholders in support of the implementation of the NUA, and the reports of UN-Habitat's Governing Council. All the evidence should also incorporate, to the extent possible, the inputs of multilateral organizations and processes where appropriate, civil society, the private sector, and academia, and should build on existing platforms and processes and avoid duplication and respond to local, sub-national, and national circumstances and legislation, capacities, needs, and priorities.

5. Other global agendas such as the Paris Agreement and the Sendai Framework, have also introduced new sets of indicators and statistics adding onto an already expanded framework of indicators, with now over 81 indicators within the family of SDGs indicators either having a direct or indirect link to human settlements indicators and statistics. The core goal within the SDG indicators framework is SDG 11, which directly refers to cities and human settlements. The NUA, as well as all the other complimentary global agendas largely rely on the SDGs core set of human settlements indicators and statistics for global monitoring and reporting.

III. Progress on reporting of human settlements statistics

6. In line with the above mandate and spirit, UN-Habitat has coordinated three major reports detailing the progress and achievements of human settlement indicators and statistics in the last 5 years. These reports profile the latest trends on wide-ranging issues affecting human settlements as well as many global urban challenges

[1] https://unhabitat.org/sdg-11-synthesis-report/
[2] https://unhabitat.org/progress-on-the-implementation-of-the-new-urban-agenda-report-of-the-secretary-general/
[3] http://habitat3.org/wp-content/uploads/NUA-English.pdf

such as; air pollution, urban transport, waste management, cost of housing, urban sprawl, climate change, urban public spaces, etc. These reports are;

a. 2016 World Cities Report: Urbanization and Development: Emerging futures [4];
b. The Quadrennial report of the NUA 2018 [5]; and
c. A synthesis report of SDG 11 indicators, 2018[6].

7. In July 2018, the first of a series of five quadrennial reports that will be prepared over the period 2016-2036 was submitted to the Economic and Social Council[7]. This was supported by a synthesis report profiling the progress of Goal 11 which was discussed as part of the 2018 High-Level Political Forum on Sustainable Development. Jointly, these reports are a key component of the follow-up and review on the implementation of the 2030 Agenda, the NUA and other regional urban agendas.

8. The Goal 11 synthesis report acknowledges the need for countries to monitor locally, but report progress on cities and human settlements at the national level. Urban issues are an entry agenda and are cross-cutting for many other sustainable development goals and targets. This calls for policy coherence and the need to build vertical and horizontal systems of collaboration on monitoring, reporting and implementation.

9. These three progress reports were shared at the 2018 High-Level Political Forum on Sustainable Development, with a view towards ensuring coherence, coordination and collaborative linkages with the follow-up and review of the 2030 Agenda for Sustainable Development and other global agenda.

IV. Global and regional workshops related to capacity-building activities

10. UN-Habitat and other custodian agencies have organized regular technical cooperation workshops in the field of human settlements statistics, which has included country advisory services, national and regional workshops and direct technical assistance[8,9]. In the last 5 years, technical assistance has been directed at building the institutional capacity of national statistical offices to harmonize systems for collecting human settlements statistics, refining urban related definitions and designing data collection tools. This has also included conducting routine human settlements statistics surveys that cover collection of data on composite indicators such as those that monitor slums or access to basic services or land tenure security or urban governance and civic participation. Capacity-building activities have also included the compilation of analytical and performance indicators relevant to the understanding of human settlements policy and the monitoring of programme implementation. In recent years, UN-Habitat technical assistance was provided, at different scales, to many countries such as Botswana, Cameroon, Colombia, Ecuador, Egypt, Ethiopia, India, Kenya, Kuwait, Republic of Korea, Rwanda, Saudi Arabia, Tunisia, Botswana, Uganda, the United Republic of Tanzania and Viet Nam among others. Currently, several global projects for capacity-building are being implemented in many countries across several regions of the world.

11. Since 2014, 26 capacity development workshops have been organised with nearly 1000 participants drawn from national statistical offices, local and national governments, civil society, academia, public and private institutions, and representatives from special groups such as youth, women and persons with disabilities. The regional workshops for national statistical offices have proven to be a cost-effective way to inform national statisticians about the latest international recommendations linked to human settlements statistics. Normally, the national statistical offices within a given region experience common issues. The regional workshops not only provide space for deliberations on conceptual problems but are also an excellent forum for the exchange of experiences and best practices. In the last 3 years, UN-Habitat and partners have jointly conducted a number of

4 http://wcr.unhabitat.org/
5 https://unhabitat.org/progress-on-the-implementation-of-the-new-urban-agenda-report-of-the-secretary-general/
6 https://unhabitat.org/sdg-11-synthesis-report/
7 https://unhabitat.org/progress-on-the-implementation-of-the-new-urban-agenda-report-of-the-secretary-general/
8 https://unhabitat.org/the-journey-to-monitoring-sdg-11-kicks-off-in-the-asia-pacific-region/
9 https://unhabitat.org/preparing-cities-in-africa-to-monitor-and-report-on-goal-11/

regional and international workshops, including: an international workshop on human settlements indicators linked to SDGs in Naivasha, Kenya, in February 2017 (93 participants from 31 countries), a regional workshop on human settlements indicators for Africa organized together with ECA in December 2017 (38 participants from 11 countries), a regional workshop on human settlements indicators for Asia Pacific countries organized with ESCAP in March 2018 (46 participants from 14 countries), a regional workshop for Arab States organized with ESCWA in July 2018 (32 participants from 11 countries), and an international workshop on human settlements statistics in Kuala Lumpur, in February 2018 as part of the World Urban Forum (85 participants from 27 countries). In the next 2 years, more capacity development initiatives will be targeted to cities and local government, as well as national statistical organisations. Most of these will focus on how to apply the concepts of the national sample of cities, harmonizing city definitions, use of geospatial technologies in monitoring urban SDGs, establishing national statistical systems and networks to support urban monitoring of a diverse and new sets of urban SDGs indicators, data compilation and presentation at city levels, and how civil society and urban communities can contribute to global reporting on human settlements.

12. Since 2016, UN-Habitat and all other lead custodian agencies have developed indicator-specific modules that provide step-by-step guidance on the concepts and methods of computation of several SDG 11 indicators. These modules are accessible to all countries and cities free of charge. In addition to the above capacity development initiatives, the urban observatories' network available in many regions and countries provides direct SDG-11-related capacity development. Trainings on setting up urban observatories have been conducted in several countries, including Botswana, Egypt, Ethiopia, India, Jordan, Kuwait, Mexico, Saudi Arabia, Tunisia, Vietnam, and Zambia. Each training resulted in the creation of several local urban observatories. Other SDG 11 custodian agencies have also been undertaking capacity development initiatives in collaboration with regional commissions.

V. Existing data gaps and challenges of reporting on human settlements statistics

13. Despite the ongoing efforts of UN-Habitat and the larger network of stakeholders working on human settlements statistics, it should be noted that the need for technical assistance in human settlements statistics in all countries is much greater than the resources currently available. While some positive trends in the improvement of human settlements statistics have been observed globally, a critical gap remains in production of human settlements data in many countries especially regarding the many new and spatial-analysis dependent indicators.

14. Many urban SDG targets and indicators refer directly to cities as the unit of analysis for tracking progress. Yet countries define cities differently, based on a single or combination of criteria that includes aspects such as population size or density (or both), economic function, nature of activities (agricultural versus commercial), amount of locally generated income, as well as political and administrative measures. An informed guidance on definitions, measurements, and unified standards is necessary to make sure that monitoring and reporting of urban agendas and human settlements statistics are undertaken using harmonized and mutually agreed concepts. Without a single globally applicable definition of a city as the measurement unit for selected urban and human settlements indicators, countries are likely to compute estimates using various operational concepts, which could include the city core, urban agglomeration, metropolitan area, all of which use and apply different thresholds and methods, making global comparisons difficult.

15. Over the past two decades, UN-Habitat as a focal point for urban issues has established various tools for global urban monitoring, which have contributed to generation of urban data that is directly relevant for the SDG 11 monitoring. These include the urban observatory model, the city prosperity initiative, the urban indicators program and the national sample of cities approach. Many of these tools have been refined and modified in collaboration with other UN agencies in readiness for supporting the global monitoring of the urban SDGs. A more detailed discussion on some of these tools is provided in the next sections.

VI. Urban observatory model: mechanism for informed-decision making

16. 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[10]. Systematic guidance on setting up urban observatories has been provided to a number of countries leading to the development of a global network of local, national and regional urban observatories which facilitate data collection and monitoring processes at local levels, and its aggregation and/or comparison at the national and regional levels[11].

17. 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. They assist in strengthening urban data capacities at national, sub-national, and local levels, providing platforms to facilitate effective knowledge exchange and promote evidence-based governance built on a shared knowledge base. Today, UN-Habitat is overseeing and coordinating 374 urban observatories worldwide: 101 in Africa, 143 in Asia and 130 in Latin America. These local urban structures are leading the local level engagements on collecting, analysing and interpretations of data for urban indicators related to the NUA and the urban SDGs through consultative and inclusive processes. UN-Habitat channels all newly developed tools and guides through these local urban observatories.

18. Several observatories are now being re-trained on the new sets of available global urban indicators. UN-Habitat has been working with several partners to enhance the capacities of the many urban observatories to play a continuous central role in data collection and reporting on SDGs and NUA. This critical mass of urban observatories constitutes a very important asset for the monitoring and reporting of the international urban agendas.

VII. National Sample of Cities: A model Approach to Monitoring and Reporting performance of Cities at National Level

19. Many urban SDG indicators require data collection at the local/city level. This means that countries are compelled to define and identify the number of cities they have, collect data on all these cities and aggregate upwards the national level average performance of these city-specific indicators. For many countries, it is not possible to collect information and report on all their cities, and this is particularly true for those that have limited resources (financial, institutional, human and systems). For such countries, UN-Habitat recommends the application of the National Sample of Cities (NSC) approach which will allow them to systematically select a sample of representative cities from their territory and continuously track progress on these cities for national level reporting[12].

20. The NSC is a carefully constructed sample of cities that considers sub-regional and city specific characteristics and variances to monitor the dominant urban patterns in a given country. The NSC is one of the mechanisms that will create conditions to monitor and report on a consistent set of cities that can enable them to produce time series analysis to measure national progress in a more systematic and scientific manner. The sample of cities must be drawn using sound statistical and scientific methodologies based on several relevant national and city-specific criteria/characteristics that capture the diverse urban contexts of countries, ensuring consistency, and representativeness of a given country's territory, geography, size, history, etc.

21. Data collection across all SDG 11 indicators requires significant resources. These vary from financial, institutional, human resources to investing in new systems. Assessments undertaken by several custodian agencies including UN-Habitat since 2016 revealed that most countries are challenged with the level of available resources to support quality data systems and resources to support monitoring on all SDG 11 indicators. However, a few countries, particularly those from developed regions, have well-established urban data collection structures, and enough resources to cover all the needs of monitoring and reporting on progress of Goal 11 for all their urban

[10] http://mirror.unhabitat.org/content.asp?typeid=19&catid=646&cid=8381
[11] https://core.ac.uk/download/pdf/55622464.pdf
[12] https://unhabitat.org/national-sample-of-cities/

areas/cities.

22. To support countries with limited resources for systematic data collection on SDG 11 indicators, UN-Habitat and other partners developed the national sample of cities (NSC) approach. The approach helps countries to select a non-biased sample of representative cities. The national sample of cities is drawn using sound statistical and scientific methodologies based on, but not limited to national importance, geographic location, size of the city, population in the city, economic and political importance, youth/children and women representation, etc. The advantages and main steps proposed for selection of national sample of cities are provided in Annex A.

VIII. The City Prosperity Index: an efficient tool for measuring cities performance using comprehensive urban data analytics

23. The challenge of creating inclusive growth and sustainable urban development requires a commitment to partnership and cooperation, supported by a strong monitoring mechanism that measures policies and investments based on close to real-time evidence. Such a mechanism should serve to prioritize activities, ensure strategic investments, monitor coverage of plans and measure impact articulated at national, regional (territorial and municipal levels) and global levels. UN-Habitat has developed a global monitoring framework called the City Prosperity initiative (CPI) that enables member states to monitor and evaluate their efforts towards implementation of the urban components of the sustainable development agenda both domestically and internationally using a unified and sound mechanism that measures success, but also assesses failures at different government levels.

24. The CPI integrates tools and mechanisms for monitoring Goal 11 and other urban related SDGs indicators that are aligned with international and national guidance on gender, youth and human rights monitoring strategies at all levels. Specifically, tools such as the national sample of cities methodology are well integrated in the City Prosperity Initiative which allows for measurement and assessment of urban performances in a representative manner. Already, UN-Habitat has been working with the City Prosperity Index (CPi) which is part of the city prosperity initiative for monitoring cities performance globally with a core set of indicators that feature tracking inclusiveness —such as monitoring urban infrastructure, environment, productivity, etc. Also, CPi indicators such as access to adequate housing, water and sanitation, access to quality education, as well as access to internet and citizen participation, or any other civic, cultural, economic, political and social right metrics link directly to many human rights agendas. With a monitoring system of national sample of cities, youth, gender and human rights inclusiveness aspects will be strengthened for local and national monitoring levels. While the global indicator framework adopted by the General Assembly is the authoritative list of indicators for the global monitoring of SDG 11, the CPi provides complementary information and analysis to the global indicator framework. It can be used as an additional tool in the process of implementation of the agenda.

25. The CPi integrates indicators for urban SDGs to address in a single framework the environmental, social and economic components of city prosperity and sustainability. Indeed, all 10 targets and indicators of Goal 11 are integrated in the CPi. The CPi has therefore the potential to be a global monitoring platform for Goal 11 indicators and other SDGs with an urban component. It is estimated that around one third of urban-related indicators can be measured at the local level, having a direct connection to urban policies, and a clear impact on cities and human settlements. Also, 23% of all SDG targets that can be measured at local level are covered by the CPi. Countries which apply CPi are able to identify, quantify, evaluate, monitor and report on progress they and their cities are making in achieving Goal 11. To date, UN Habitat has supported more than 400 cities across the world to implement the CPi. Experiences from deploying CPi shows that countries and cities that have adopted this unified and standardized platform for SDGs monitoring and reporting of urban indicators are saving time and resources.

26. The adoption by national Statistics office of an integrated approach of the city measurements through the CPi, offers the following advantages:

A. *provides a single value of the state of the city;*

B. *establishes benchmarks for local, national and global monitoring;*
C. *creates city baseline and information;*
D. *generates a local monitoring mechanism, and;*
E. *identifies priorities and transformative actions to achieve sustainable urban development*[13].

IX. Spatial data integration into the SDG 11 monitoring framework

27. At least seven SDG 11 indicators require data collection at city level using non-conventional methods that go beyond censuses or household surveys. A common feature cutting across the non-traditional sources of data required for these (7+) indicators is inclusion of a spatial component, whether as the main unit of analysis or a determinant of indicator results. SDG Indicator 11.3.1, for example, adopts spatial metrics as one of its main units of analysis (rate at which land is consumed by urban growth) while results for SDG indicator 11.6.2 greatly vary from one area of a city to another based on concentration of air pollution intensities. Geospatial techniques offer countries effective systems for integrated management of (spatially referenced) data across all areas of development, and advancements in geospatial science - with more open source applications and datasets - creates a unique opportunity for countries and cities to collect and/or compile data at higher spatial and temporal resolution, as well as to generate information that is more visual and connected to the physical space, and which is key for informed decision making.

28. Since 2014, UN-Habitat has established partnerships with diverse stakeholders working in the geospatial field to support development of modern approaches to urban data generation, to leverage the resources of the geospatial community for enhanced generation of SDG 11 relevant data, and to continuously ensure that the appropriate technologies, approaches and methods are channelled to countries and cities. Some of the key partnerships established include those with the UN-GGIM, the scientific arms of the European Commission (DG-REGIO, JRC), the European Space Agency (ESA), NASA, GEO, AfriGEOSS, among others. In addition, collaborations have been established with entities within countries working on geospatial data to pilot various data collection tools at the local levels, and with national statistical agencies for incorporation of related technologies to the conventional data architecture.

29. To support data generation on the spatially dependent SDG 11 indicators, UN-Habitat and partners have developed several tools which utilize both commercial and openly available data sources (e.g satellite imagery) and applications (software). Some of these include step by step training manuals on indicator computations and executable applications for automated workflows, which are openly available to countries and cities. These tools have been shared with countries during various regional workshops, and directly piloted in partnership with national statistical offices and country-based spatial data agencies e.gs in Botswana, Colombia, Tunisia, among others. In addition, UN-Habitat has developed technical documents which explain how each indicator measures a specific component linked to sustainable development, and how policies should respond to reported indicator values to achieve progress towards the related goals.

30. While there has been progress towards adoption of geospatial data approaches in countries, and acknowledgement of the importance of the technologies to future data structures, the prevailing legal and policy frameworks in many countries is prohibitive, especially with regard to the adoption of data collected using these approaches to official statistics. In addition, many countries are facing challenges such as lack of resources to put in place the proper systems, limited capacities in human resources, as well as those related to lack of, or high costs associated with generation of spatially referenced baseline data. UN-Habitat is working in collaboration with other UN agencies and partners to support countries in these areas, with a series of workshops and training sessions planned and some already completed. Other strategic partnerships are being established with various service providers of relevant systems/ software e.g with ESRI for support to cities directly.

X. City definition

[13] *see https://cpi.unhabitat.org*

31. Several SDGs targets and indicators refer directly to cities as the units of measurement, away from the traditional reference to urban areas that also exclusively cover cities. But what exactly is a city or an urban area? What is the size threshold for an area to qualify as a city? What type of administrative, legal or historical status defines a city? How do we distinguish an urban area from a town or a village? These are some of the many questions that have been asked since the adoption of the 2030 Sustainable development agenda where some indicators refer directly to the unit of a city. A global definition of the city as a unit of analysis and for monitoring purposes is critical to overcoming comparison challenges among cities performances. But even at the urban level, a tighter global definition of what constitutes urban away from rural areas is needed for purposes of global monitoring and reporting. For example, some countries define their urban areas using a population threshold, or an administrative demarcation, or population density, or economic function of an area, while others use a combination of the above criteria. Thresholds for each criterion vary widely depending on country specific guidelines and local definitions. Equally, a diversity of concepts is often used interchangeably to refer to a form of urban area. Examples of these terms include “city proper”, “urban agglomeration”, “metropolitan area” among others – each of which represents a different kind of functional urban entity. A concrete guidance on concepts, measurements, and unified standards is necessary to make sure that we work with harmonized and mutually agreed notions on city and urban definitions.

32. UN-Habitat in line with its custodian role for several indicators that depend and require a definition of a city has worked with various institutions and organizations globally towards agreeing on a global definition of a city. These efforts are not meant to change how countries define their urban areas but rather to support the global monitoring and reporting in a more systematic and harmonized manner. Global consultations and expert group meetings organized by UN-Habitat and its partners led to the narrowing down to two city definitions, which give a good perspective for global monitoring of selected SDG 11 indicators whose unit of analysis/ measurement is the “city”. These two are;

A. City as defined by its urban extent - Urban extent represents the total built-up area and urbanized open spaces. Built up areas are defined as the contiguous areas occupied by buildings and other impervious surfaces, classified in three levels based on the share of built-up density (urban- ness) in a 1-km2 circle of a given point: Urban built-up area (greater than 50%); Suburban built-up area (between 25%- 50%) and Rural built-up area (less than 25%)[14].

B. City as defined by its degree of urbanization - a classification that indicates the character of an area based on its population size, density and contiguity of settlements in units called “Local Administrative Units Level 2 (LAU2)”, distinguishing three settlement types: densely, intermediate and thinly populated areas[15].

XI. Progress on supporting countries to report on Human settlements indicators

33. UN-Habitat remains a custodian agency for a large set of indicators under Goal 11. What is clear so far is that Goal 11 monitoring and reporting presents major challenges that other SDGs do not necessarily confront. A mixed-bag of approaches has been proposed to address the data needs for city/urban tagged indicators under SDGs, particularly where the city is the unit of analysis. Out of the 15 or more urban/city related SDGs indicators, 7 are being collected at local city level and not by routine data collection mechanisms such as census or household surveys: 11.2.1 on public transport; 11.3.1 on land consumption; 11.3.2 on civil society participation; 11.5.1 on disaster risk reduction; 11.6.1 on solid waste; 11.6.2 on Air quality; an 11.7.1 on public space. In addition, from the 16 indicators, 7 require some form of spatial data collection and analysis at local/urban level with a clear method at the urban agglomeration level: 11.2.1 on public transport; 11.3.1 on efficient land use; 11.5.1 on people affected by disasters; 11.6.1 on urban solid waste and air quality location; 11.7.1 on public space; and 11.b.1 on climate change and resilience.

34. Of the 15 SDG 11 indicators, 6 require special aggregation techniques to generate the desired data at the national level from city-based data. In some instances where countries have so many cities, this requires working

[14] http://www.atlasofurbanexpansion.org/

[15] JRC: http://ghsl.jrc.ec.europa.eu/CFS.php

with a representative National Sample of Cities for each country selected in such a manner that it reflects the country's territory, geography and history, and any other dimensions as discussed in section VII. In addition, some cities and countries recognize the difficulty to integrate a city-wide approach in policy formulation when monitoring and reporting on Goal 11 indicators that are very sectoral in nature. This is even further complicated by the silo-approach of ministries and government departments found in many member state's governance systems across the world. UN-Habitat has been working with many partners and member states to finalize relevant guides that offer solutions to these challenges[16].

35. All countries that have succeeded to report on the human settlement indicators of the SDGs have noted the value of having national statistical systems that need to coordinate with local authorities and service providers to collect information at city level as the unit of analysis, using conventional (i.e. communities, municipalities, etc) and modern (satellite imagery and ICT) forms of data collection techniques. The use of innovative geospatial tools in data collection systems, including census and surveys to measure and to track performance of cities towards many urban related SDG targets is new for many national statistical agencies and institutions. Equally, the aggregation of city level data for reporting performance at national/country level is new and of paramount importance to many national statistical agencies.

XII. Distinguishing slum from non-slum areas

36. UN-Habitat continues to advocate for and monitor the global populations who live in slums. Today, UN-Habitat's estimates show that nearly a billion people live in areas generally referred to as slums as per the UN-Habitat definition i.e. "*Any specific place, whether a whole city, or a neighbourhood, is a slum area if half or more of all households lack improved water, improved sanitation, sufficient living area, durable housing, secure tenure, or combinations thereof*". A significant hindrance to making slum dwellers count remains an apparent lack of a global definition of what characterizes a "slum area" and ensuring that this definition is mainstreamed in all global data collection processes (surveys, census, etc) through labels directly attached to enumeration areas within the national sampling frames.

37. UN-Habitat continues to spearhead further refinements of slum area based definitions, and institute work with several National Statistical offices on testing the concept of detecting slums areas through three options: (*1) innovative digital-based satellite imagery analysis, coupled with ground-truthing and local observation techniques, and slum space mapping; (2) census-based slum mapping at enumeration area (EA) level, leveraging existing census data and UN-Habitat's slum definition at household-level; and (3) incorporating slum area definitions into upcoming 2020 Round Census by tagging each EA with "slum", "non-slum" and "rural" area.*

38. Ultimately, this process will allow surveys and other data collection processes in low and middle-income countries to examine differences in services, access, housing, and deprivations across slum and non-slum urban areas. Examining these area-based differences will help to formally recognize that slum challenges are not the same as urban challenges, improving visibility for a currently marginalized and vulnerable slum population which is aligned with the spirit of leaving no one behind.

XIII. Conclusion and recommendations

39. The challenges of collecting and monitoring human settlements statistics seem to constrain the ability of policymakers in government and of leaders to formulate effective national urban and human settlements development policies, and guide urbanization from the basis of evidence. The emergence of new sets of indicators dependent on spatial analysis technologies and systems may constrain the ability of many countries to report, at least in the early years of the current global frameworks. However, many countries have now updated their human settlements and urban indicators database, but the data collection of some of the new and spatially

16 https://unhabitat.org/national-sample-of-cities/

challenging indicators will take a while to be collected at the lowest layers of the cities before aggregating at the national level.

40. Considering the above, scaling up capacity building and more resources are needed to build data systems that offer alignments in data collection processes, methodological development work, including addressing definitions of new urban concepts. Enhancing political, legal and institutional frameworks as well as financial support at the local levels is also needed. In total, Goal 11 has 10 targets and 15 associated indicators that need to be reported on by cities and national governments. In addition, 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.

41. Monitoring and reporting of SDG 11 presents major challenges that need to be addressed at global, national and local levels. Many countries acknowledge the challenges related to the implementation of SDG 11 and are requesting for technical support for effective monitoring and reporting. In the last 4 years, the custodian agencies have witnessed an increased demand from Member States and local governments for technical support related to building their capacities to collect, analyse and draw policy formulation from their local data.

42. As a result, UN Habitat and other custodian agencies have invested a significant amount of time and resources in supporting Member States to set up the required monitoring systems for Goal 11. Custodian agencies have developed new and relevant guides, materials and clarified definitions that are needed for global urban monitoring for SDG 11, in collaboration with various stakeholders.

43. A few urban related SDGs indicators require a new reporting territorial level—the city—as a unique entity of analysis. Several of the Goal 11 indicators must be collected / computed at city level although the monitoring/reporting will be done at the national level. Agreeing on an operational definition of a city from a statistical and spatial perspective has been a major pre-occupation of the many expert group meetings that UN-Habitat and partners organized in the last two years. This issue has also been a major factor in decisions of IAEG-SDGs on whether to reclassify some indicators from Tier III to Tier II. Following concerted rounds of discussions with partners and custodian agencies, two global definitions of cities are now available. These definitions will support the global monitoring and reporting of the performances of cities in a more systematic way. It is however important to note that a common definition does not mean that countries will have to change how they define a city or urban area in their own countries.

44. UN-Habitat will continue working with local urban observatories worldwide as the local interlocutors for urban data collection and feeding evidence directly into local urban polices and plans. Observatories in high income and middle-income countries have the resources, both technical and financial to sustain the roll-out and implementation of SDGs urban monitoring. New tools for enhancing their capacities and knowledge on SDGs monitoring have been shared. Regional workshops were organized to disseminate the new tools to urban observatories, and subsequent feedback was used to address and refine the tools.

45. The CPI – a flexible framework for the formulation, implementation and monitoring of policies and practices on sustainable development to increase prosperity levels in cities – can be leveraged for monitoring Goal 11 indicators as it integrates indicators for urban SDGs to address in a single framework the environmental, social and economic components of city sustainability. Countries and cities that have adopted the CPI for SDGs monitoring and reporting of urban indicators are saving time and resources.

46. Despite significant progress in developing the monitoring tools and methods for SDG 11, further work is needed especially in terms of reaching out to all countries in all regions. Localizing the urban monitoring tools sometimes raises a few refinements which UN-Habitat and partners are addressing in parallel. Results from capacity building efforts aimed at aligning data collection processes, methodological work, including definitions of concepts to SDG 11 requirements takes time. As such, additional resources are needed to allow custodian agencies to reinforce their coordination and for efficient monitoring for the next 2 years. Enhancing political, legal and institutional frameworks as well as financial support at the local levels is needed.

47. At the city level, urban management and development process involve many actors and at different levels (political bodies, national, subnational and local), and in a few countries we continue to work directly with countries to demonstrate how this should be done for urban monitoring. Because different stakeholders are involved in the production of various supporting indicators required for monitoring progress towards the SDG 11, we recommend enhancing the role of urban observatories as focal points for urban data and reporting. Also, a formalized coordination mechanism involving all data producers, with clear mandate and specified role and responsibility at all levels is required.

48. Many countries are facing the challenge of prohibitive policy frameworks for integration of data generated from alternative sources as required by the SDGs monitoring framework, and which, despite the sources being proven to be reliable and accurate, and the data itself offering important information that can influence positive policies towards sustainability, cannot be incorporated into official statistics. While some countries cite lack of clear verification mechanisms for specific sets of data (such as that collected by communities), others acknowledge that sources such as those based on geospatial analysis provide accurate and up to date data which can complement conventional statistics. There is need for development of guidelines on how countries can streamline and update their data collection processes to modern approaches such as those required by the SDGs monitoring framework, which should be attained through multi-stakeholder engagement methods.

XIV. Points for discussion

49. The Commission may wish to:

a) Endorse the adoption of the national sample of cities methodology for countries that are constrained with the national monitoring and reporting on all their available cities.
b) Endorse the creation of a group of experts for the revision of the Guidelines and Principles for the implementation of the City Prosperity Index measures;
c) Endorse the creation of a group of experts for the development of Guidelines for identifying slums and non-slum enumeration areas;
d) Comment on challenges related to the definition of the city, including on disaggregation of data by type of human settlements (urban, rural, and slum versus non-slum urban), especially in the context of the Sustainable Development Goals;
e) Comment on the most effective coordination mechanism for the work on human settlements statistics at the international level.

Annex A: Advantages and description of the main steps proposed for the selection of national sample of cities

The below procedures describe the main steps proposed for the selection of national sample of cities

A. *A complete listing of all cities in country is compiled creating a national sampling frame of cities.*
B. *Relevant city descriptive data is collected for each city (geographical location, population size, importance categorization, counts of women/youth, etc.*
C. *Cities are grouped using major categories of interest defined at the national level and a simple random sampling of cities applied in each category.*
D. *A final list of sampled cities is reviewed and agreed upon by selected stakeholders under the guidance of the national statistical agency.*

The adoption of a NSC brings the following advantages:

A. *integrates cities of all sizes, functions and types as part of a national system of cities that can help to amalgamate the disjoined energies and potential of urban centres;*
B. *assists in the aggregation of locally produced city indicators for national monitoring and reporting, and for the production of regional and global reports and analysis;*
C. *provides a platform for collecting different layers of data with a unified methodology that can be used to report on national progress on the SDGs or other elements of the urban agenda;*
D. *allows the calculation of an un-weighted national average as well as weighted national averages on the overall urban SDGs indicators;*
E. *creates baseline data and establishes benchmarks and national targets with the same technique of standardization that will enable for comparisons of indicators and city measurements;*
F. *facilitates a systematic disaggregation of information at national, sub-national and city levels along key SDGs indicators and dimensions of development needed to address territorial disparities.*