United Nations Human Settlements Programme

Naivasha, Kenya from 13 to 17 February 2017

First Technical meeting on Human Settlements Indicators for SDGs:

Assessing gaps in the production of human settlement Indicators

Workshop report*

Naivasha, 13-17 February 2017

* This document is being issued without formal editing.

Contents

Background and objective of the technical meeting

1. The Sustainable Development Goals (SDGs) were adopted by the General Assembly in 2015 with an accompanying indicators framework, which was endorsed by the United Nations Statistical Commission (UNSC) as an initial starting point at its sitting in March 2016. Among the 17 SDGs, Goal 11 addresses the needs of cities and human settlements, although there are other human settlements indicators in other SDGs. In parallel, the New Urban Agenda (NUA), adopted by the third United Nations Conference on Human Settlements in 2016, set out a series of development goals, targets and objectives for the next 20 years. In addition, there are other urban development targets reflected in many other global frameworks.

2. The global community acknowledges the urbanization challenges, and in the last two years, we have witnessed a consensus of the need to work together on all these emerging issues, from the SDG Agenda, Paris Agreement and the NUA. All these agendas acknowledge the elements of partnerships and the role that data and information will play in the monitoring and reporting of progress. The Inter-Agency Expert Group on SDGs (IAEG-SDGs) convened by the United Nations has agreed on several targets and indicators to monitor progress and guide policy and programme implementation to achieve both the SDGs and NUA. This first technical workshop on human settlements indicators (Goal 11+) meeting discussed the methodological issues, capacity development strategies and partnerships arrangements for delivering on all human settlements indicators (Goal 11+) requirements.

3. This 1st Technical workshop on human settlements indicators (Goal 11+) was a great milestone since it brought together for the first time all partners working on human settlements indicators from UN agencies, Directors of National Statistical Offices (NSOs), Private sector, Academia, Civil Society Organization (CSOs), UN Regional Commissions, Innovators, Government institutions, etc. The meeting participants discussed at length the challenges of monitoring the human settlements indicators within the SDG framework and worked out strategies for further methodological development and capacity building. During this meeting, participants had hands-on reviews for each of the urban related SDG indicators. Presentations also covered key crosscutting issues such as the City Prosperity Initiative, (CPI), National Sample of Cities approach, data disaggregation, gender and youth mainstreaming, cultural heritage and creativity, integrations, etc.

Opening session and objectives of the workshop

Mr. Raf Tuts, Director Programme Division, *United Nations Human Settlements Programme (UN-HABITAT),* opened the meeting. The opening session also covered remarks on behalf of partners from Ms. Jyoti Hosagrahar, *Director of the Division for Creativity, Culture Sector at UNESCO*.

In the opening remarks, Mr. Tuts noted that……"*the recognition of a standalone Sustainable Development Goal 11 on cities and human settlements is in line with the fact that by 2050, the world's urban population is expected to nearly double, making urbanization one of the twenty-first century's most transformative trends. Populations, economic activities, social and cultural interactions, as well as environmental and humanitarian impacts, are increasingly concentrated in cities, and this poses*

massive sustainability challenges in terms of housing, infrastructure, basic services, food security, health, education, decent jobs, safety and natural resources, among others".

As indicated by Mr. Tuts, UN-Habitat's mandate by member states includes coordinating the monitoring of the key elements of the NUA. These include:

(i) Developing and implementing urban policies at the appropriate level, including in local-national and multi-stakeholder partnerships, building integrated systems of cities and human settlements and promoting cooperation among all levels of government to enable the achievement of sustainable integrated urban development;
(ii) Strengthening urban governance, with sound institutions and mechanisms that empower and include urban stakeholders, as well as appropriate checks and balances, providing predictability and coherence in urban development plans to enable social inclusion, inclusive and sustainable economic growth and environmental protection;
(iii) Reinvigorating long-term and integrated urban and territorial planning and design in order to optimize the spatial dimension of the urban form and deliver the positive outcomes of urbanization;
(iv) Supporting effective, innovative and sustainable financing frameworks and instruments enabling strengthened municipal finance and local fiscal systems in order to create sustain and share the value generated by sustainable urban development in an inclusive manner.

In her opening remarks, Ms. Jyoti Hosagrahar noted that at the global level, countries are being called upon to collaborate with others to ensure success of the SDG agenda. Some of the key elements of what it will take to deliver on the 2030 Agenda especially the urban SDGs include developing jointly:

a. the capacity to adapt global agendas to national urban contexts, ensuring integration with national and local government priorities,

b. the ability to mobilize broad support across sectors, including social participation and engaging civil society as equal partners with governments in setting priorities and developing home-grown urban solutions;

c. the commitment to monitor and measure progress;

d. the integration of culture into the 2030 Agenda, especially Goal 11, and the New Urban Agenda, and

e. the need to value and integrate culture and heritage in all the spheres of urban development and sustainability especially, how to measure the contribution of culture in Sustainable Development. Other aspects to integrate are tangible cultural heritage, intangible cultural heritage, natural heritage, artistic creativity, cultural policies and cultural infrastructure

She spoke briefly about the work that UNESCO has been doing in the last few years towards Goal 11 and the New Urban Agenda building up towards Habitat III. She also shared one of UNESCO's major publications: "*Culture Urban Future"* published in October 2016 for Habitat III.

All speakers in the opening sessions emphasized the need to enhance the global public's awareness of the importance of SDG 11 and NUA implementation, building strong partnerships arrangements for implementation of each of the SDG 11 targets and other human settlement indicators. Despite the existing challenges, working with other UN and related agencies including local governments in unpacking and simplifying the challenges of human settlements indicators will ensure implementation at all levels and strengthen the capacities of national statistical systems to enhance their reporting obligations on urban-related SDGs.

In total, there were 65 participants on the opening day with an additional five joining during the second session of the first day. Representatives from national statistical offices included: *Bangladesh, Botswana, Colombia, Ghana, Kenya, Tanzania, Thailand, and Uganda, and.* Also in attendance were representatives from UN regional commissions with an exception of Economic Commission for Europe (ECE).

Background

Mr. Robert Ndugwa - UN-Habitat provided a background to the technical meeting, including a detailed rationale that covered the following areas:

- Urbanization challenges and opportunities ranging from transportation, pollution to culture and diversity (Population growth, economy, etc.)
- Planetary boundaries to be considered to achieve resilience and sustainability
- Differences between SDGs and Millennium Development Goals (MDGs) (Partnership and collaboration) - Jointly identify partners, integrate, join efforts, create clear and effective strategies to achieve goals
- Comprehensive, universal, and diverse Agenda
- Links between local level and national statistical office/ Modernization of National offices and data sharing (Open data)
- Data revolution for GIS/Smart Cities/Smart Citizens/BIM and risk modelling

He summarized the session with the meeting objectives as follows:

a. Increase knowledge and awareness on human settlements indicators (SDGs) among all partners (who is doing what, where, how, at what cost?).
b. Create a common understanding of the inter-related nature of the SDG 11 and other human settlement indicators.
c. Highlight indicator level challenges and work towards common solutions on methodology, definitions, partnership arrangements with NSOs, capacity development, IT technologies, mainstreaming, crosscutting issues, etc.
d. Create working groups on specific indicators that require joint systems of support to NSOs as well as monitoring.
e. Create a roadmap for further engagement on implementation of the human settlements indicators.
f. Review and further develop the national sample of cities approach.

g. Strengthen networks for implementation of human settlements indicators.

Organization of the Workshop

As laid out in the Workshop Agenda (Annex 1), the Workshop was structured along the following main topics:

- Background to the technical meeting including speeches and rationale
- Monitoring strategies for NUA and the SDG 11 and other human settlements indicators (Goal 11+)
- Presentations on progress on methodological work on all human settlements indicators
- Strengthening synergies between local government and other partners
- Role of advocacy and civil society in urban SDGs monitoring
- Techniques for measuring spatial forms on urban related SDGs
- Technologies and mobile-based tools for monitoring urban SDGs
- Addressing the cross-cutting issues for urban SDGs including definitions
- City Prosperity Initiative (CPI) and National Sample of Cities approach, urban data disaggregation needs
- Feedback from NSOs on country mechanisms of urban data collection, analysis and reporting
- Databases for reporting on Goal 11+ indicators
- Capacity building strategies for human settlements indicators
- UN Regional commissions on preparedness to support human settlements indicators

A number of presentations were presented under each topic and were followed by open discussion. The country experiences shared by participants provided additional information and enriched the open discussions. Presentations, discussions and recommendations were structured in a way that progressively led towards the development of the technical meeting's final recommendations.

The presentations for the technical meeting are available in Google drive using the link below:
https://drive.google.com/open?id=0B75YoYuU7vzWdVNhVWhWcG5LNW8

Monitoring strategies for NUA and the SDG 11 and other Human Settlements Indicators

The first session of the technical meeting was an informative session entailing the background process of developing the SDGs, the relationship between the SDGs and the NUA, and the CPI monitoring framework. The introductory presentations involved discussion on each of the SDG 11 targets and indicators with enclosed proposals on the ways of graduating them to Tier II or I. Presentations on the various and necessary partnerships needed for capacity development were also elaborated, and their significance towards the important needs for the development and monitoring of the SDGs.

Introduction to SDGs, Goal 11 and its implication of the New Urban Agenda

In his presentation, Mr. Eduardo Moreno-UN-Habitat highlighted that cities act as a string that connects all other goals together in the implementation of the global vision 2030. It is therefore important to formulate integrated policies that enhance the transformative role of urbanization through interactions that exist. In line with the process of graduating the indicators to Tier II or Tier I, it was necessary to have a formal process through which all the indicators of Goal 11 needed to follow. This formulation process begins with global consultations about the indicators, followed by a platform for online comments, then ratings of proposed indicators and finally review by the Inter-Agency Expert Group (IAEG-SDGs). At present, Goal 11 consists of 10 targets and 15 indicators; 11 indicators are output indicators while the remaining four are process indicators. Of all these indicators, seven are in Tier III, seven in Tier II and only one in Tier I. It is envisioned that by the end of the consultative process with experts, methodology improvements undertaken, all these indicators will move to Tier I.

Out of the 17 SDGs, 240 indicators are part of the Global Monitoring Framework adopted by the UNSC and about one third of these can be measured at the local level. As a result, most of these indicators have a direct connection to urban policies and a clear impact on cities and human settlements. This is why the NUA will be implemented and monitored using these indicators and in support of implementation of the Agenda 2030. Already considerable matching of SDG indicators with the five pillars of the NUA - National Urban Policies (NUPs), Rules and Regulations, Urban Planning and Design, Financing Urbanization and Local Implementation - has been done..

In his summary on indicators, Mr. Moreno provided a preview of all the targets as follows:

Target 1: Indicator 11.1.1: Focuses on the methods and data on how to integrate slums (MDGs), Informal settlements, and Inadequate Housing (housing rights- affordability). There is a problematic alignment between the objectives of the indicator. The target addresses the access and upgrading aspects while the indicator only measures the proportion of populations living in slums, informal settlements and inadequate housing.

Target 2: Indicator 11.2.1: Has a specific focus on transport that integrates spatial components with narrow understanding of accessibility. Nothing about the safety, affordability and sustainability and problems of disaggregation (age, group, sex…etc.) has been mentioned.

Target 3: Indicator 11.3.1: Provides a positive evaluation of urban sprawl, with clear methodology, strong component on spatial planning, how to adopt national coherence on techniques, connection to sustainability of cities and urban form (facilitate sustainability form of the city), promote people participation, problem of subjective definition (ex: direct participation, operate regularly…etc.), perception with problems of comparability.

Target 4: Indicator 11.4.1: It is difficult to measure and focuses on composite indicator, which includes protection, conservation, type of heritage, levels of measurements from national to local, sources of funding to capture the indicator and target.

Target 5: Indicator 11.5.1: Strong connection to disaster, resilience, poverty and vulnerability. It has a problem with the temporary nature of disaster and notion of indirectly affected. There are also issues with concepts, definitions and comparability among countries. It was necessary to know and outline how to take the Sendai Framework from application as voluntary indicator to a mandatory indicator to achieve Urban Resilience with the adoption of HABITAT III and the New Urban Agenda.

Target 6: Indicator 11.6.1: Has a strong correlation with waste of public health, poverty, and the environmental aspect of the city. There is a lack of measurement tools and governance arrangements. There is an agreed method on air quality and use of satellite images with strong connection to the city urban forms, compactness, and interconnectedness.

Target 7: Indicator 11.7.1: Public space focus with many dimensions i.e. spatial component analysis, strong integration of the urban form, streets are considered as public spaces, combine scales and different sources, not all dimensions of target are integrated (ex: safe, inclusive, public and privates) offers subjective notion of evaluation.

Indicator 11.7.2: Focuses on sexual harassments but not related to public spaces/ refer to persons not women/ eliminated forms of sexual harassments creating problems of comparability.

Target 11.a: Indicator 11.a.1: National and regional development planning (population projections and fiscal schemes).

Target 11.b: Indicator 11.b.1 and 11.b.2: These have a strong connection between risk, resilience and sustainable development. These indicators have their basis on the Sendai Framework and is connected to the Paris Agreement, providing a strong role to local governments. Offers self-assessment at country level, but still needs to assess the qualitative aspects of the strategies

Target 11.c: Indicator 11.c.1: Support Least-Developed Countries (LDCs), Economic and sustainability aspect to create jobs (proxy).

In his concluding remarks, he pointed out that almost half of the indicators are in Tier III category so they require further work to improve the methodologies and data systems.

Implementation of the New Urban Agenda

Mr. Ben Arimah-UN-Habitat, in his presentation, stated that the implementation of the NUA contributes to the implementation and localization of the SDGs in an integrated manner; hence, it should not be viewed in isolation, but as a means for implementing the SDGs. He reiterated that the word 'IMPLEMENTATION' is a key terminology that has been mentioned 141 times in the 2030 Agenda and 38 times in NUA outcome document. Following the Quito Declaration (Paragraph 166), there is a need for periodic reporting on the progress of the implementation of the NUA. One of the ways to do this reporting is with UN-Habitat's Flagship reports, "The Word Cities Report (WCR)" which acts and can serve as a *reporting mechanism* on the implementation of the NUA and the SDGs. The WCR 2018 will focus on the implementation of both global agendas by undertaking an analysis of what needs to be done for the effective implementation of the NUA.

In the 2018 report, the emergence of urbanization will be examined as a key agenda in international development policy, where current and emerging challenges of urbanization and meeting goals of sustainable urbanization will be addressed. The action framework for implementing the NUA will be a dedicated framework focusing on the elements of planned urbanization, where housing will be at the centre and capacity development will be adopted to ensure sustainability. In terms of localizing the SDGs and the NUA, local authorities will be involved as per the Quito Declaration, which advocates for engagement with local and sub-national governments. To support the implementation of the NUA, Partnerships will also be adopted as advocated in the Quito declaration with all relevant stakeholders and entities of the United Nations System. Leveraging of finance will be through various levels of government, multilateral development banks, international public finance, philanthropic organizations and the private sector.

He further shared a tentative breakdown for the chapters of the WCR 2018 reports as follows:

Chapter 1: Emergence of urbanization as a key agenda of international policy
Chapter 2: NUA Structure and content and key difference in linking with the Habitat Agenda
Chapter 3: Linking NUA and the SDGs - Implementing and localizing the SDGs. NUA Spatial Framework for the sectoral based SDGs
Chapter 4: Framework for Implementing NUA
Chapter 5: Localize the SDGs and NUA
Chapter 6: Key partnerships for implementing NUA
Chapter 7: Financing the NUA (Addis Ababa Action plan work as financing mechanism for implementing the NUA)
Chapter 8: Overcoming Implementing Challenges - (Context specific) Regional perspective
Chapter 9: Following up of NUA (Periodic Review, monitoring and progress, and use of CPI as a monitoring framework)

Elements of Partnership and Capacity Development

Mr. Claudio Acioly - UN-Habitat, in his presentation, argued that without strong institutions and well trained and capacitated staff equipped with the correct knowledge, skills and know how together with existence of strong urban institutions, implementing and monitoring the implementation of the SDGs will almost be impossible. Implementing the NUA requires partnerships with universities including building new connections with non-traditional partners. These partnerships can take the form of South-South co-operations, which look into the elements of the role players for the exchange of resources and peer learning. In terms of knowledge, several approaches have been designed and dedicated focusing on communities of practice, use of search engines, e learning (example of the Urban Lectures), networks and knowledge exchange, conventional education centers, and training.

Learning and knowledge exchange need to take place through co-operation and technical assistance through partnership with governments, private sector, academics, NGOs, CSOs and International Development Institutions. Much more is needed than capacity building; hence, the following capacity needs for the implementation and monitoring of the SDGs need to be taken into account: Institution - related performance gaps, individual-related performance gaps and knowledge gaps. Strategic partnerships need to be adopted to ensure that these gaps are filled. The need for more networking will ensure more knowledge, ideas, human and financial resources and possibility for better services are achieved. Partnerships are therefore a key ingredient for the development of the SDGs at both the National level and International level to create a WIN-WIN situation for all stakeholders.

Presentations on Progress on Methodological Work on All Human Settlements Indicators

INDICATOR 11.1.1: ***Proportion of Urban Population living in slums, informal settlement or inadequate housing***.

Ms. Kerstin Sommer-UN-Habitat presented on the status and progress on the methodological work on the indicator 11.1.1. She noted that the indicator was downgraded from a Tier I to Tier II indicator. For this indicator, the methodology exists but data is not easily available. She shared the challenges on the new additions to this indicator i.e. adequate housing and informal settlements. The indicator is extremely relevant and integrates the elements of MDG 7.c and MDG target 7.d with the SDGs broader spectrum of housing informality and inadequacy. It was important to have adequate housing and informal settlement redefined and its components measured in an effort to eliminate the inherent definitional overlaps.

From the methodological aspect, it was important to clarify definitions of the terms of slum, informal settlements and adequate housing, which cover various concepts. It is thus necessary to have a call for action for sustainable transformation since slums are considered as territories of paradox both temporary as well as permanent. In order to be conceptually consistent and methodologically sound, she presented

three categories of measurement that were still under discussion regarding the measurement of this indicator.

In her view, some of the key challenges included lack of universally agreed definitions and characteristics when referring to poor informal housing, often due to political or economic consideration. There is the absence of appropriate tools at national and city levels to measure all components required by the indicator 11.1.1, which results in underestimation of poor or slum housing units. The complicated relation between security of tenure to land and property also makes it a difficult but vital aspect to include in the different surveys, and thus, to measure and monitor. The indicator also does not capture homelessness. With an acknowledgement that many countries still have limited capacities for data collection, management and analysis, their update and monitoring which are key ensure national and global data consistency.

In conclusion, slums are not clearly in the maps therefore availability of data in many countries is a challenge. The Participatory Slum Upgrading Programme (PSUP) through expansion and up-scaling approach provide opportunities to build capacities to strengthen and mobilize partnerships for slum upgrading and data collection. Opportunities presented for this indicator lie in raising awareness and addressing the challenges faced by youth and women in relation to the five slum deprivations, the right to adequate housing, climate change impacts, urban safety and access to public spaces, health and education. It is also necessary to integrate elements of culture.

INDICATOR 11.2.1: ***Proportion of Urban population with access to convenient Public Transport***

Ms. Nao Takeuchi-UN-Habitat presented on the on-going works on the indicator 11.2.1 that is currently a Tier II indicator. The indicator is conceptually clear, the methodology is well established but the data is not regularly produced by countries. On-going works includes indicator refinement, proposal on sub-indicators and strengthening partnership with experts and stakeholders, consultations with experts on monitoring framework and methodology, testing the methodology and data collection, which will continue through to 2018. A proposal to revise the indicator and the reporting mechanism will be submitted to the IAEG in 2018 with planned reporting on the indicator with actual data collection and adoption of the indicator beginning in 2019.

For this indicator, there is no harmonized data collection model. The term ‘convenience’ measures the official distance from a recognized public stop reflecting the distance and does not categorize the quality of public transport. It also fails to capture the diversity of technology tools and relies on the creation of designated transport stops by member states and the issue of regional regulations. It does not take into account other High-Capacity Public transport (Metros) that have a higher capture area than the suggested 0.5km buffer.

Opportunities for this indicator lie in the development of a global baseline grounded on national ownership. It is necessary to have integration, build national ownership through facilitation of national processes of collaboration and capacity development, mainstreaming transport into wider national SDG

monitoring process for data gathering and analysis, consolidate, and sustain capacity of governments in ensuring long-term sustainability of monitoring at national level.

INDICATOR 11.3.1: ***Ratio of land consumption rate to population growth rate***

This s a tier II indicator that is conceptually clear and an established methodology exists but the main problem is data availability. In his presentation, Mr. Patrick Lamson-Hall-New York University, added that monitoring of this indicator requires a model composed of three layers of information, with four methodological steps. These three layers involve the delimitation of the urban extent, administrative boundaries as well as the necessary population attached. The required methodological steps needed involve measurement of the urban extent, assigning population to the urban extent followed by computation of growth rates and calculation of the ratio.

The current on-going work for this indicator include the Atlas of Urban Expansion, the UN-Habitat Cities Prosperity Initiative and the Global Human Settlements Layers (GHSL) with an acute focus on validating population data for disaggregation and aggregation as well as the need for clarification of definition of urban extent. For this indicator, population assignment will help to harmonize the population data to allow for comparisons within and between the countries. The strategy for achieving this will require disaggregating population data to the built-up pixel level and creating a population grid. This will require gathering of all administrative data, intersecting the urban extent, including population data, interpolating population data to match satellite imagery date, evenly distributing the population of each administrative area between every built-up pixel and summing the population of the built-up falling within the urban extent. He pointed out that for data agglomeration to be possible, all data reporting at all levels (country level and municipal level) should take into account the urban extent. The main challenges for this indicator include the periodicity of data availability, census resolution and accuracy, data agglomeration, conflicting definitions of the city and the overall interpretation of the indicator.

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

In their presentation, Mr. David Thomas and Ms. Catherine Tololwo – UN- Habitat, stated that this is a tier III indicator with no clearly established methodology. They further stated that the key areas of priority for this indicator lies in the agreement of definitional terms of the words '*directly, regularly, and democratically'* that require conceptual clarity.

The current methodology for this indicator depends on a 5-point Likert scale that uses the five dimensions measured from very low to very high. These five dimensions cover the level of citizen involvement in urban income and expenditure agreements, the supervision and criticism on the performance of urban management, the membership in social foundations and organizations, levels and diversity of cooperation in city planning/budgeting and procurements, and participation in urban

planning design and agreements. The data sources will rely heavily on regular surveys, city- level surveys and use of scorecards.

There are several areas for improvements on this indicator. This includes the measurement and sharpening of the dimensions of the Likert-scale. There is need to distinguish between actual participation and opportunities for participation. Areas for further exploration range from use of technology, leveraging on existing and active structures of local governments.

Indicator 11.4.1: ***Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed, World Heritage Centre designation), level of government (national, regional, and local/municipal), type of expenditure (operating expenditure/ investment) and type of private funding (donations in kind, private non-profit sector, sponsorship).***

This indicator is a tier III, meaning that no data is available and there is no existing internationally accepted methodology. In his presentation, Mr. Jose Pessoa-UNESCO intimated that the 2009 UNESCO Framework for Cultural Statistics would be applied to define Cultural and Natural Heritage for this indicator. The main outstanding issues are whether *Intangible Cultural Heritage* (ICH) and *Underwater Heritage* need to be included in the methodology. Public and Private Expenditure will be defined according to international financial standards. There is still need to decide whether urban/rural disaggregation is applicable for this indicator.

During April-December 2017, UNESCO Institute for Statistics UIS will finalize the methodology for SDG Indicator 11.4.1, develop and administer a pilot survey to 15-20 countries and produce an analytical report that includes the results of the pilot survey and recommendations for a global survey on heritage statistics. The main aim is to design and test a data collection instrument for SDG 11.4.1. However, one of the biggest challenges is whether to collect other relevant data on cultural/natural heritage beyond the requirements for SDG 11.4.1, and what other data on cultural/natural heritage requires collection. The frequency of reporting depends on the feasibility to collect the data on an annual basis with a scope of disaggregating the data at national, regional and local levels.

The main challenges presented for this indicator included the quality and scope of the existing cultural and heritage data at country level. It takes time to collect and disseminate data and to develop statistical capacity at national level. Human and financial resource constraints present additional challenges since these resources are needed to implement a monitoring mechanism for this indicator and support country implementation of the indicator.

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

11.5.2: ***Direct economic loss in relation to global GDP, climate damage to critical infrastructure and number of disruption of basic services, attributed to disasters.***

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

11.b.2: ***Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies***

Mr. Esteban Leon- UN-Habitat highlighted that these indicators do not cover the theme of resilience in cities. In addition, the Sendai framework for disaster risk reduction is another global agreement and not an indicator and the lack of tools for local governments to implement these indicators and follow-up on the making cities resilience campaign run by UNISDR. The purpose of indicators are to act as: (1) a management tool to help countries develop implementation and monitoring strategies for achieving the SDGs and to check progress; (2) a report card to measure progress towards achieving a target and ensure the accountability of governments and other stakeholders for achieving the SDGs. The current priority indicators proposed will not act as a management tool or report card for building resilience or reducing vulnerability rather has a narrow focus on losses. A focus on positive attributes such as capacity, governance, resources and social safety nets, along with access to and availability of systems and services will be required to measure this target. This will help reduce vulnerability to a multitude of risks and shocks. As such, a robust indicator for this target will need to be multidimensional and should go beyond focus on the reduction in human and economic losses.

INDICATOR 11.6.1 ***Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated by cities***

In her presentation, Ms. Nao Takeuchi–UN-Habitat stated that this is a tier II indicator with a conceptually clear and established methodology, and standards but data is not regularly produced by countries.

While initially, there was a question of whether to include sewage sludge and faecal matter in the monitoring scope, the advice of the EGM was not to include these two streams in this indicator. There is also a need to work on the definition of 'urban waste', whether additional types of wastes should be included in it, such as waste from health care facilities, industrial waste, agricultural waste, mining waste, construction and demolition waste, end of life vehicles and waste electrical and electronic equipment. Some of these waste streams are not generated within the city, thus could not be considered as 'urban' waste. There was also an observation that the current definition of "adequate discharge" in the indicator could not capture the gradual improvement of solid waste management, which is how improvement takes place in reality. There were comments that environmental adequacy need to be defined in terms of the effect on the environment, rather than in terms of technologies applied (but for

practical feasibility of monitoring, it is much easier to check the technology than to analyze environmental effects). Informal sector waste services are included in the methodology. Waste generation is relatively easy to measure in developed countries as it largely corresponds to the amounts of waste collected and treated. Therefore, measurements at the end will also represent waste production. In developing countries, this is much more difficult, as significant amounts of waste are not collected at all, and often many service providers are involved and it is difficult to gather data from all of them. In countries where waste production is not documented, the existing method of computation is used as it is difficult to do overall estimation but the services that take place before recycling e.g. waste collection are considered before running the estimates.

For this indicator, the data completeness and data quality are problematic, particularly in developing countries. The estimation of uncollected waste and estimation of amounts handled by the informal sector remain the main challenges, which are very likely to affect both the completeness and the quality of data. There are existing national capacity constraints, financial, human and technical in many countries. Larger investment is needed for capacity development for both national and local development officials in charge of waste management. However, collaboration with local universities may help to collect the data and to check the data that are collected by other actors in the system.

INDICATOR 11.6.2: ***Annual mean levels of fine particulate matter (PM2.5) in urban areas (population weighted)***

This indicator is categorized as a tier I. Mr. Carlos Dora–World Health Organization (WHO), elaborated that the indicator has a clear established methodology with an existing database with yearly updates made in consultation with countries and cities. WHO has an urban air quality database which is regularly updated with annual mean ground measurements of PM2.5 and PM10. Currently, the database hosts data for 3000 towns and cities. There is an on-going indicator modelling with additional data sources (e.g. remote satellite sensing, chemical transport models). The current resolution is at 10 km.

With the exception of Europe, North America and some high-income Asian/Oceania cities, few countries have an established air quality-monitoring network. To fill this gap, there is an on-going indicator estimation using a hierarchical modelling approach that uses information from other sources, such as estimates from satellite retrievals of aerosol optical depth and chemical transport models. It allows spatially varying relationships between ground measurements and other factors that estimate air quality. There is a need for collaboration with World Meteorological Organization (WMO), United Nations Environmental Programme (UNEP) and UN-Habitat.

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

The presentation on indicator 11.7.1 by Mr. Manuel Madrid - gvSIG, Mr. Jose Chong and Ms. Esther Njiru – UN-Habitat outlined the major qualifiers for the target 11.7 and focused on the open spaces for

public use. This indicator is classified as tier III because there is no established methodology and no existing datasets. The proposed methodology has three steps, two of which have already been applied in over 100 cities as part of the CPI and 200 cities in the Atlas of Urban Expansion project. As for the third step, which is computation of total open public space, a pilot in three cities will be conducted by NYU while another pilot will be conducted by gvSIG in one more city. The common definitions of safe, inclusive, accessible, built up area and public space already have an existing and agreed upon definition.

The major challenges are lack of regularly updated high-resolution satellite imagery, lack of an existing protocol or standards to measure open public spaces depending on cultural perspectives, limited technical capacities (GIS skills) to monitor this indicator. There is also the difficulty of how to capture the quality and not only the quantity of open public spaces as well as the high costs associated with the generation of relevant data with no available geo-spatial database.

Experts also questioned whether accessible public space would include distribution of public space, population density, safety and public space in informal settlements. There was discussion of the measurement of privately owned public space, entrance fees and inclusions of economic activities in public space. There was further discussion of the use of city boundaries, as there is often large public space on the urban fringe that is accessible to urban residents. Similarly, cities will expand over the next 15 years, so the city boundaries will most likely change. Final discussions were on the difference between open public space and general public space, such as shopping centers, streets, libraries and other communal buildings.

INDICATOR 11.7.2: ***Proportion of person's victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months***

Mr. Enrico Bisogno-UNODC noted that there is no operational definition of harassment. The development of indicator 11.7.2 on harassment still has some methodological issues to be resolved. For this indicator there is particular reference to the definitional issues of harassment. The International Classification of Crimes for Statistical purposes (ICCS) already provides guidance on what physical and sexual harassment means. The main challenge is the agreement on an operational definition of the concept of harassment and the development of a common survey module. There are existing definitions of physical harassment, sexual harassment and location of the crime. There are also national 'Experience within Crime Victimisation Surveys.' The issue is how to develop a definition that can be operationally used in surveys (i.e. translation from theoretical definition to the operational definition).

Harassment is still difficult to identify in practical terms. In order to develop the survey model, and translate the concepts into specific questions, a core set of specific and concrete behaviors to be considered, as harassment need to be identified. A common language can be developed afterwards. The next steps will be to finalise a survey module, develop a common package for Victimisation Surveys, and enhance national ownership of Victimisation Surveys and explore cooperation with on-going international household surveys (MICS, LSMS, etc.). In the crime victimization survey applied in 50 countries, only six explored harassment, and only one country surveyed both types of harassment physical and sexual. The main challenge is that victimization surveys are not yet part of regular data

production in many countries. However, it is important to note that UNICEF's Multiple Indicator Cluster Surveys (MICS) Program has developed a new module on Victimization (based on the model UNODC questionnaires) that is now part of the MICS standard questionnaires. The module includes a question on discrimination and harassment that may offer some components for the harassment indicator. Several countries are expected to collect data during 2017.

As this indicator is in Goal 11, there needs to be special attention to the disaggregation by place of occurrence, as an important determinant of the crime. To ensure that the space is dully taken into account there are two possible ways, by either incorporating the geographical location of the event (GPS coordinates), or by the computation of the location characteristics. In the agreed crime statistics, there are currently seven different classifications by types of places: schools, prisons, open areas, commercial areas, institutional areas, streets, public transport.

INDICATOR 11.a.1: ***The proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs by size of city***

This indicator is currently a tier III with no clearly established methodology. Ms. Jane Reid– UN-Habitat highlighted that there are current ongoing works for this indicator with feedback from experts stating that current indicator is inherently flawed. The recommendation that a revision was needed for the indicator was reached during a virtual Expert Group Meeting on Indicator 11.a.1 hosted by UN Habitat and UNFPA on 15 September, 2016. The Expert Group highlighted a number of flaws, including that: cities in every country of the world do not implement regional development plans and in some case, it may be above their jurisdictional level, and as such, the indicator as is was not implementable and not measurable. Secondly, measuring the indicator by the 'percentage of population living in cities…' might result in some government to focus on large cities and may consequently leave behind smaller cities that would not contribute to the improvement of the rating of the indicator. For this reason, it was submitted that the indicator be reviewed at the Inter-Agency Expert Group Meeting but this can only happen in the next revision cycle in 2020.

The methodology for the indicator is in itself, a policy evaluation framework and it has been engineered to measure the content of the policy. The main challenge of this indicator is the inability to move from the current indicator to the new proposed indicator and as such, this indicator is still unmeasurable. The first opportunity is to build on ongoing work. For example, UN Habitat has already started putting in place tools to measure the baseline- what already exists in terms of National Urban Policies globally through the National Urban Policy Database. The Database provides a global overview of the state of urban policy at the national level. The database also gathers country-level data (when available) on the existence of National Urban Policies or national level urban policies, the implementing ministry, the stage in development and implementation of the policy, etc. Data is available for almost all UN member states. The recommendation is made to revise the current indicator to the new proposed indicator: ***"Number of countries that have a National Urban Policy or Regional Development Plans that (a) respond to population dynamics, (b) ensure balanced territorial development, and (c) increase local fiscal space."***

INDICATOR 11.c.1: ***Proportion of financial support to the least developed countries that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient building utilizing local materials***

This is a tier III indicator and data is not available for many countries. Mr. Antony Abilla –UN-Habitat stated that the indicator alluded to the number of green jobs arising from the manufacture and use of local materials. The building materials are only local if the extraction, processing, sale and usage occurs within the same geographical region. There are existing opportunities to engage with the local inhabitants on the use of local materials. The indicator measures the proportion of financial resource allocations and checks the financial allocations to the building sector.

The main challenge for this indicator is the different regional definitions of what counts as durable local materials. An additional problem came through the formulation of the measurement of the indicator in that it only assessed the proportion of financial support given to local Least-Developed Countries (LDCs) and did not take into account other additional finances that are channelled into the building sector.

INDICATOR 1.4.1: ***Proportion of population living in households with access to basic services***

Ms. Nao Takeuchi -UN-Habitat presented the list of basic services covered by this indicator; most of which were indicators in other goals and included basic infrastructure services. These were categorized as basic infrastructure services, social services and quality of life services.

Challenges for this indicator ranged from the definitional boundary of 'basic services' and whether or not to include social and quality of life categories of basic services in the monitoring scope. There is an inherent issue on how to obtain population with all the basic services based on the existing SDG indicator values. For this indicator, further refinement of the metadata is still ongoing with the possibility of exploring possible partnerships with other custodian agencies for water, sanitation, energy, and ICT SDG indicators for efficient monitoring.

INDICATOR 1.4.2*: Proportion of total adult population with secure tenure rights to land, with legally recognized documentation, and who perceive their rights to land as secure, by sex and by type of tenure*

This is a Tier III indicator whose custodians are the World Bank and UN-Habitat. In her presentation, Ms. Everlyne Nairesiae–UN-Habitat highlighted that there was a big gap in perception data on tenure security. She further explained that harmonization of indicator 1.4.2 with 5.a.1 (cross cutting concepts and definitions) is ongoing with support of Global Land Indicators Initiative (GLII) as well as data mining by World Bank and UN-Habitat for baseline data. There are glaring gaps in perception with limited coverage in existing household surveys and censuses. Initiative by Property Rights Index (PR

Index) has potential to contribute perception data through global polls. With the support of GLII, expert group meetings for this indicator is scheduled to take place in 2017 however; the dates are yet to be announced with a working schedule of submitting an agreed methodology to the IAEG-SDGs by December 2017. The GLII platform - established in 2012 by Millennium Challenge Corporation, the World Bank and UN-Habitat - which is hosted and facilitated by Global Land Tool Network (GLTN) at UN-Habitat, provides continuous backstopping technical, convening and coordination support to custodian agencies responsible for land indicators in the SDGs.

Ms. Nairesiae further stated that as the custodian agencies continue to address the need for comparable methodology and data protocol for this indicator a number of key steps are still pending including expert discussion for an agreement methodology for this indicator, frequency of data collection and reporting for both administrative and perception data. There is also an existing complexity in the dualism of tenure regimes and inadequacy of capacity at national and regional levels in land data generation and reporting, and the unavailability of comparison and authentication mechanisms for administrative data and versus survey/ census based comparisons. To fast track the development of the indicator, it is necessary to calculate and report on existing land data as a starting point from both administrative and household survey data as a starting point and further harmonize key concepts and definitions for the indicators 1.4.2 and 5.a.1. Continuing partnerships with the World Bank, other UN agencies, and land and statistical offices at county and regional levels will also serve to fast track this indicator from tier III to tier II and eventually Tier I.

INDICATOR 6.3.1: ***Proportion of wastewater safely treated.***

This is a tier III indicator and the custodian agencies are WHO and UN-Habitat. As stated by Ms. Nao Takeuchi UN-Habitat, the methodology was developed over 2014 -2015 period and it is being piloted in five countries (Jordan, Netherlands, Peru, Senegal, and Uganda). This indicator presents great opportunities to link priority pollutants identified in industrial monitoring to ambient water quality monitoring. Two of the challenges are determining (a) industrial flows from informal activities and (b) the significance of wastewater from commercial establishments (An initial analysis reveals they contribute maybe 20-40% of flow).

The methodology for this indicator adopts a mass balance framework that provides a simple graphical overview of the sources and sinks of waste, avoiding perverse incentives for poor investments while allowing flexibility for decision makers on how to transition from unsafe to safe depending on the context, priorities and resources while building on existing MDG monitoring.

SDG's –NGOs and CSO and Local Governments; Local governments and advocacy work for SDG 11

Strengthening Synergies between UN-Agencies and Local Government Organization for follow-up and review of SDG 11

Local governments are instrumental for the successful implementation of the SDGs. One of the biggest local government organizations of the world, the Global Network of Cities, Local and Regional Governments (UCLG), through its representative Mr. Edgardo Bilsky, stated that it is in a position to establish how local governments can contribute to the implementation, monitoring and reporting of the SDGs. At the local level, the Agenda 2030 and the implementation of Habitat III were integrated to 'localize' the SDGs.

The UCLG strategy for localizing SDGs comprises awareness raising, advocacy, implementation, and monitoring. This strategy includes putting in place the global platform 'localizing the SDGs' that gathers useful tools for cities and regions. Regarding the implementation of the Agenda, the main challenge for cities is how to move the different pillars of their own agenda into the implementation of the SDGs, including monitoring and reporting. Monitoring and reporting should be the lever for advocacy and further mobilization of resources. UCLG has two instruments to support monitoring and reporting of regions and cities, namely, the GOLD-Global Observatory on Local Democracy and GOAF- Global Observatory on Local Finance.

Some of the concerns raised were that although a lot has been done about the implementation of SDGs in local governments, alignment of the timelines for indicator development to what is being localized still needs to be matched since the unit of analysis of Goal 11 is the city. Clarification was also sought about implementation of SDG 11 both at local and national level, as its success is dependent on both. Based on localization examples of federal states (in this case Germany and Brazil), inquiry was made on possible recommendations for non- federal states. It was resolved that national mechanisms such as forums and dialogues be created and given to different actors to facilitate prioritization and implementation of SDG 11 to ensure enough engagement to achieve the SDGs. It was also agreed that reporting and the indicator monitoring process should be a lever to create change by using SDG indicators to objectively empower people and local governments to create change and make progress. Local-international coalitions can be a platform to ensure that moving forward this is achieved, though quite challenging to achieve. SDGs may be instrumental to build 'real' framework of multi-level governance.

In conclusion, the strategy from UCLG is not to focus the global effort on the indicator but on the political process, that accompanies it. Reporting and implementing should be very close to learning and city-to-city cooperation; UCLG is moving towards this since SDG may be instrumental to build 'real' framework of multi-level governance.

Practical tools for monitoring SDGs

A practical example by a Government Administrative Officer from Nakuru, Kenya, Chief Francis Kariuki, elaborated on how he has been engaging the community to address various challenges by the use of a social media platform-*Twitter*. He made an agreement with the community to work together in implementing the SDGs through a local *'Nyumba Kumi Initiative'*, which is about clustering of homes and election of community leaders by the locals. These leaders collect data. In comparison to the SDGs, this initiative has a lot of similarity to the SDGs in the community, through its elected leaders, settled on the goals most relevant to them: No poverty, Good Health, Quality Education, Gender, Water and Sanitation. This enabled easy data collection through the 300 elected leaders by the use of mobile phones. A dashboard was then developed (lanet.opencountry.org) to enable the Chief to share results and findings with the community easily.

Availability of smart phones has helped data collection in Lanet County. He noted that the data collected, after being refined, should also be given back to the people to help them know the value of the information as well as make improvements.

Advocacy and Civil Society in SDG Monitoring

Habitat for Humanity, an NGO, articulated its focus on shelter and human settlements through its representative, Ms. Tamzin Hudson. She outlined that their objectives are better achieved in the presence of data. Some of the advocacy strategies that the organization uses are: discussions with policy decision-makers regarding concerns, delivering messages through the media, designing robust communications strategies, strengthening the ability of local organizations to advocate, building partnerships, forums, coalitions and contextual research. Raising awareness is one of the critical works that Habitat for Humanity does especially around the SDGs. The organization has also managed to introduce housing policies in 55 municipalities. On methodologies, the organization has been promoting strong multi-stakeholder discussions, involvement, and prioritization of sustainable development through strong political leadership.

Overall Conclusions and Recommendations:

It is important to recognize the importance of collaborating with NGOs, CSOs and local government to achieve the SDGs. The SDGs are targeted at citizens and their success is based on their ownership and participation. Data collection, although aggregated at the national level, should be strengthened at the local level using mechanisms such as mobile-based technologies to make the process easier. At the same time, the locals need to be engaged through discussions to achieve the core principle of SDGs that no one is left behind. UN-Habitat should also prioritize partnerships with organizations to facilitate not only data collection but also monitoring and reporting.

Spatial data needs and GIS technologies for Goal 11.

In his presentation, Mr. Manuel Madrid-gvSIG Association outlined the importance of a well-connected street network as well as a methodology for computing land allocated to streets. A well-connected network consists of many short links or numerous intersections, few cul-de-sacs and balance between the street network length and the streets width. The street connectivity benchmark adopted is the one in the CPI Methodological guide, which stipulates that urban land allocated to streets and sidewalks should be 30%, street density should be 20 km/km2 and the intersection density should be 100 intersections/km2. The proposed methodology (Land allocated streets) takes into account delimitation of built-up area, sampling, calculation of aggregated metrics, assessment of degree of confidence and calculation of disaggregated metrics and aggregated metrics excluding open space. The Sampling method adopted is Halton Sequence, a quasi-random sequence. For each point in the sequence, a 10 hectares circle is created. The main advantage of using Halton sequence is that the coverage of space is much better than when using a pure random sequence.

Ms. Esther Njiru and Mr. Jose Chong-UN-Habitat, in their presentation, demonstrated the techniques of mapping open public spaces using satellite imagery as well an alternative method to assess the quality of open public space. Two approaches of measuring the indicator were discussed. The first, Top-down approach involves the identification of potential open spaces from high-resolution satellite imagery and subsequent fieldwork to validate and graduate the potential open spaces to open public spaces. The second, Bottom-Up approach is based on community mapping and focusses on quality assessment. In order to be able to evaluate quality, a matrix for a citywide assessment needs to be employed which takes into account four dimensions: spatial availability, quantity, location and spatial distribution, and network. Limitations include: as the fact that the contiguous built-up area may change over time such that a cluster that was not initially included may suddenly be added at some point, causing distortion in the metrics; and the periodicity of satellite imagery due to irregular updates.

Mr. Patrick Lamson-Hall-New York University, in his presentation, outlined four complimentary approaches to monitoring urban expansion. The various approaches for monitoring urban expansion are sampling of cities globally and nationally by region, city population and size, automated remote measuring of the quality of urban, manually assisted remote measuring of the quality of urban expansion and field-augmented measuring of the qualitative attributes of the cities. He concluded that remote sensing is appropriate for applications that are morphological or visually determined, such as urban extent or urban layouts – in some cases and can be done automatically. Further added that, remote sensing can be fruitfully combined with ground research to give representative data for the city as a whole and that sampling methodologies can bring down the cost and make monitoring more attainable for national statistical agencies.

Ms. Alice Siragusa- consultant at European Commission-JRC in her presentation illustrated in detail the Global Human Settlement Layer, a new open and free tool for assessing the human presence on the planet. The tool produces data in form of built up maps (38m resolution), population density maps and settlement classification. The GHSL tool is designed to combine information from population censuses with built-up and to downscale population into a grid of 1Km resolution, according to the presence or

absence of built-up in the grid cell. The combined information results into a new layer (resolution 1Km) which disregards administrative boundaries, and represents the presence and density of population. The GHSL provides historical information on urban expansion, for all global settlements and is released for four epochs (1975-1990-2000-2015).

In her presentation on "*Earth Observation for Mapping and monitoring urban expansion, Green structure and informal settlements",* Ms. Yifang Ban-KTH Royal Institute of Technology Sweden illustrated various ways of generating data on urban expansion, green structure and informal settlements using different satellite imagery data and techniques. She suggested that radar technology could be used in mapping public space and green space in cities. She further explained the challenges and opportunities involved are of the following dimensions: ownership-green structure and ecosystem services, urban green and blue structure, and streets. The GHSL provides historical information on urban expansion for all settlements in the globe and this information is released for four epochs (1975-1990-2000-2015).

Conclusions

Spatial data collection of the urban SDGs (Goal 11) can be achieved easily using the open, free and affordable spatial technologies especially Geographical Information Systems (GIS). The primary benefit of using GIS lies in the ability to spatially disaggregate and localize data, in a context of dynamic urbanization. Currently GIS systems are in use in various fields across every nation, providing a universal platform for communicating and sharing ideas and insight. They offer effective capability of integrating many different kinds of spatial and non-spatial data, global and local. In addition, there is potential to integrate information and analyze relationships among all SDG initiatives as well as provide the underpinnings for the implementation and management of the Sustainable Development Goals.

GIS has the potential to organize SDG information into various types of layers that can be visualized, analyzed, and combined to help us better understand the issues facing future development. Spatial data delivers a platform for the observation, tracking, and management of shared SDGs worldwide-an integrated global goal GIS. This creates a development system that will integrate data across disciplines, support the evaluation using global measures for SDGs, identify the results and impacts of development interventions, and be a platform for communication and understanding.

The benefits of spatial data- GIS include:

- To serve as a framework for advancing the application of geographic science to measure, analyze, and monitor indicators associated with the goals and the multitude of projects that support their achievement.
- Platform used to collect, produce, manage, and share the data needed for decision-making.
- Focus where resources and initiatives should be supported on the ground and promote data-driven government action.
- Potential to provide a platform for discovery, exploration, and sharing that can lead to an understanding of both local and global challenges. Through massive data contributions from current and future GIS users worldwide, GIS can contribute new methods to comprehend the

complexity of our world; understand, address, and communicate the sustainable development issues we face; and act collectively.

However, cooperation among the stakeholders (United Nations Agencies, National and Local governments, civil society, academia) is required to implement the tasks and similarly for capacity building efforts across all levels.

Mobile based technologies and data visualizations for Goal 11.

Ms. Sophie Hadfield-Hill-University of Birmingham in her presentation, focused on the use of mobile technologies to understand the problems/opportunities of spaces in human settlements, taking into consideration the point of view of children. She presented the app "*Map My Community"* that was created as part of a three-year research project investigating young people's experience of urban change in India led by University of Birmingham. The app was useful to localize the desires of the community and advocate change. The data collected is geo-tagged, uploaded onto a secure website and finally the information is shared with key stakeholders.

The lessons of the pilot project are:

- Careful consideration of ethical and risk issues
- Take in consideration digital literacy (of parents and young people)
- Use of anonymous responses
- Use of community data collection
- The location data should be store on a password protected server
- Participants can withdraw at any time by deleting the app and the data or speaking to the researcher

As a result of the mapping exercise, the local government supported the implementation of small recommendations on the ground. The tool proved its effectiveness to make informed decisions for space improvements in informal settlements. In conclusion, mobile smart technologies can support communities to generate data, share to stakeholders and produce changes.

Mr. Clifford Okembo-Esri Eastern Africa on "*Visualization and Monitoring Goal 11*" highlighted the on-going changes on technology, particularly on geo-spatial information. Geographic Information Systems capture the reality and present it in an integrate way. Geo-information related to urban planning can be useful to get information on performance management, housing, economic development, recreation, traffic congestion, parking, earthquake resilience and water conservation.

In relation to the SDG process, Esri has developed a SDG dashboard to visualize information for different indicators. SDG-API is a tool to plugin datasets for any goal and indicator, making the developers work easier – Monitor the indicators on a platform without writing lines of code. Another tool is the Story Map that can visualize information related to a specific area in cities and telling informative stories on the same. In Kenya, local governments are supporting by providing dataset of

various information relating to what they do to help in the national visualization and monitoring. In general, Esri provides open tools that can support the visualization and monitoring of the SDGs.

Mr. Philip Thigo-Office of Deputy President-Kenya, presentation on "*Big data needs for human settlements"*. Mr. Thigo focused on Kenya's government efforts to harness data in an effective manner for development. The efforts are aligned to the Data Revolution promoted by United Nations and partners. One of the activities is the creation of the National Data Partnership with a multi-stakeholder approach to encourage the use of information to catalyze Kenya's development process. This will allow decision-making based on accurate data.

Data revolution can support SDG process through the different on-going initiatives promoted by the National Government with the support of private companies, innovators, and local governments. A number of examples were mentioned of how the data can convene, connect and catalyze different development processes. Kenya demonstrated the importance of data and the efforts to innovate through the different programmes and networks.

Summary of questions and clarifications

Participants expressed concerns over the relation between unofficial (e.g. Big Data, crowdsourcing) and official mechanisms (e.g. NSOs) to generate data. In most of the countries, NSOs generate official data. There is a need to have subnational statistical systems to inform urban policies and the use of new technologies allow getting data in real time. This will greatly help in bridging the gap while official data is generated. The data generated by other partners and civil societies can help to understand on-going processes. It will be interesting to find mechanisms to validate the information. However, there are some limitations; many initiatives are not consistent or timely

National governments need to negotiate with the private sector to release information for public use. This will need a good legislative framework as well as ensuring that data needs are fit for the purpose.

Clarification was presented on the issues of data sharing and accessibility where in general, it was noted that only 10% of geospatial data is used. There is a need to promote the use of the available information. In addition, some local governments working with old data were urged to adopt the use of new tools that allow for regular monitoring of cities that support better urban planning. Suggestions were made to propose ways of production and distribution of accurate data, as well as updating data to the general public and marginalized groups- data accessibility.

Conclusions

- New technologies can be useful to gather and display SDGs indicators especially the spatial that require reliance on the SDG indicators
- There are available tools that can support the SDGs monitoring
- National governments need to collaborate with stakeholders to support the SDGs implementation process.

Presentations on the cross cutting areas (health, culture, disasters, youth/gender, and environment)

Ms. Jyoti Hosagrahar–UNESCO, in her presentation outlined that culture sector intersects with other areas of urban development and contributes transversally to goal 11. She said that UNESCO was currently involved in developing a system of measuring the contribution and impact of culture on the Agenda 2030 SDGs. This measurement system is across the 6 major international conventions and across the 17 SDGs including Goal 11, at both the national and the urban levels. The framework of analysis was built on a conceptual relationship between culture and sustainable development that was circular where culture contributed to the three pillars of development, economic, social, and environmental, that in turn contributed to the safeguarding of culture. After an extensive review of more than 35 approaches to measuring culture, UNESCO's Culture for Development Indicator Suite (CDIS) was selected a suitable base needed revision and updating. The revised measurement system that she shared focused more on the urban level and included a matrix of dimensions (8), indicators, sub-indicators, and means of measurement for each. This measurement system demonstrates the multi-dimensional contribution of culture and helps to integrate its measurement to existing SDG indicators. Such a measurement system makes visible culture's role in all of the targets of Goal 11 – far beyond target 11.4.1.

The CDIS framework has seven components (economy, education, governance, social participation, gender, communication and heritage). Through the matrix, existing indicators and benchmarks are categorized, facilitating the comparability at global level. The measurement of culture can be done from the economic, social and environmental perspective; while the safeguarding and promotion of culture can be measured from the fields of culture education, heritage sustainability and governance of culture. The aspects of the SDGs have been classified in the different realms. The CDIS demonstrates the multi-dimensional contribution of culture and help integrate its measurement to existing SDG indicators.

Mr. Rafiqul Islam-Bangladesh Bureau of Statistics, in his presentation, focused on the challenges of computing disaster-related statistics in Bangladesh for SDG monitoring and the connection to the Sendai Framework. Bangladesh faces many disaster risks and climate change poses a great threat to the country. It has been identified as one of the most resilient countries of the world despite the regular and devastating disastrous events. The Survey developed had the objective of collecting disaster-related statistics including vulnerability, losses in the agriculture outputs, cultivatable land, and effects to housing structures, among others. The survey frame included the identification of the administrative areas most prone to natural disasters, and the demographic and structural conditions that make particular areas/districts more prone to disaster. The total sample covered 143,980-affected households, in 64 districts, and represented 20% of the national population, which lives in the disaster prone areas. The disaggregation was at sub-district level.

In his presentation, Prof. Richard Lilford –University of Warwick outlined that according to the theory of the *Neighborhood's effect*, the physical environment, social interactions, geographic and institutional factors can all lead to neighborhood effects. Slum neighborhoods share geographic hazards, such as a contaminated environment. In this regard, as interventions are rolled out, beneficial effects are shared

across many people in densely populated neighborhoods. When using the indicators to make inferences about the impacts of interventions, there is a need to model aspects of the intervention (e.g. coverage/type of intervention), context (e.g. baseline levels of provision), and outcomes (e.g. reduced gastrointestinal disease). This will enable the non-linear relationship between intervention variables and outcome to be identified – analogous to the herd effect in vaccination programs. *Neighborhood's effects* also help explain how and why the benefits of interventions vary between slum and non-slum spaces. It is also important, where possible, to conduct multi-center studies, to follow slum clusters over time, and to use contemporaneous controls. Careless measurement and casual inference is worse than no measurement at all.

Mr. David Thomas and Ms. Cherie Enns-UN-Habitat made a presentation focused on the integration of youth and gender to the data collection and monitoring process of human settlements indicators. Youth, women and marginalized groups have a right to be involved in decisions that affect their lives. They have unique perspectives and experiences to understand the impacts of SDGs implementation, and providing solutions to improve outcomes. Case examples of human settlement indicators were identified with challenges/opportunities in relation to including both the youth and gender components.

Ms. Isabel Wetzel –UN-Habitat/UN-Environment (UNEP) in her presentation, presented the Greener Cities Partnership, which is a joint initiative between UNEP and UN-Habitat whose goal is to highlight strategies and action plans to achieve greener, resource efficient and resilient cities, and to help countries and cities to deliver the NUA in the said areas. Embedded at the core of various urban environmental SDGs, the partnership constitutes a good example of effectively bridging efforts in the fields of urban resilience, resource-efficiency, transport, waste, housing and air quality, among others. The main objectives of the cooperation are to mainstream the environment perspective into urban policy-making, incorporate urban perspectives into environmental policy-making and highlight the local-global linkages of environmental issues.

In her presentation, Ms. Wetzel, highlighted the connections between the thematic pillars of the Greener Cities Partnership and the relevant SDGs. Here, she analyzed whether selected indicators adequately captured the multiple dimensions of greener, resource-efficient and resilient cities. She identified that on the pillar of resilient, resource-efficient cities, the relevant indicators did not clearly capture natural resources, consumption and production, and resource-efficiency in cities in the appropriate manner. Her proposition was to expand the indicator to measure the strengthened management of natural resources, with additional analysis showing that the second pillar on sustainable transport did not appropriately capture the sustainability layer of the indicator, but rather focused on economic efficiency. However, the third pillar of waste management, air quality and wastewater were well captured in some of the indicators of SDG 11. There are many references to the environmental dimension of waste management and wastewater (e.g. health, sustainability, resource management).

In conclusion, the Greener Cities Partnership has the intention to fill the aforementioned gaps by working with statistical teams and policy-makers to resolve the gaps in the selected SDG indicators and methodologies to respond better to their corresponding environmental dimensions. Therefore, the Greener Cities Partnership will lead the contributions to a stronger urban environmental agenda in the following ways: (i) in the SDG framework; (ii) at UN-Habitat and UN-Environment and with other partners; and (iii) in global processes (e.g. NUA, Paris Agreement) and at the local level.

Mr. Shayne Ayford Optron LTD, in his presentation "*Existing methodologies, tools and new approaches for monitoring SDGs",* amplified key aspects of developing solutions that are based on not only the requirement but also are complementary to the entire SDG framework. The common requirement for all the indicators within the SDG framework is data and tools for acquiring and maintaining data at high levels of accuracy. The solution approach relies upon services, hardware and software. Two approaches to achieving the desired solutions and analysis were presented: Solutions approach based upon services/people, hardware and software and workflow approach to measuring the SDGs that comprises of four phases: data collection, process, modelling and analysis.

Data for the monitoring the SDG indicators needs to be: reliable with proven accuracies, repeatable with a focus on the applicability methodology in all 'majority' environment, comparable from all possible data sources with adequate scientific justification, and data should hold up to critique from scientific community.

CPI, National Sample of Cities, Capacity Development, Data Disaggregation and Data Storage Needs for Goal 11

Mr. Eduardo Moreno, UN-Habitat presented on the CPI and the City Monitoring Platform that focused on the UN-Habitat's City Prosperity Initiative (CPI). This is a tool used to measure prosperity in cities. It supports decision-making process and policy dialogue utilizing data collected at the city level. It is a global monitoring instrument, used to compare cities in different regions. CPI has the ability to measure, understand, change and monitor prosperity in cities, and from the analyzed results different city stakeholders can use CPI information for policy formulation. In general, the CPI provides a flexible monitoring framework that takes into account contextual needs and particularities of the cities (global, basic, extended and contextual), promotes integration in the implementation of a more sustainable urbanization model. It is an innovative tool based on spatial analysis (e.g. street connectivity, public space, etc.) and is a multiple scale analysis tool (intra city/metropolitan level, with individual cities, with central governments, with a group of cities as a trans-national initiative).

The benefits are that it provides a methodology for a systemic comprehensive approach, which creates a globally comparable baseline of urban information and data, giving room for a guided dialogue for evidence-based policy-making and formulation of action plans and policy recommendations, and accountability for the city. The main advantages of CPI for cities is that it is measured at the city level, integrates city level indicators with the city form (spatial indicators) and has a strong connection to the Global Monitoring Framework for the SDGs and the NUA.

Mr. Moreno further made an additional presentation on unpacking the National Sample of Cities Approach. He stated that countries would start monitoring SDG urban related indicators; however, it can be difficult to measure the whole system of cities. Spatial disaggregated data provides relevant information for policy-makers; however, it would be complicated to determine how to allocate resources for monitoring in the various cities within a country. The proposal is to create a consistent national sample of cities for reporting taking into consideration the different characteristics of cities within a country. The national sample could be used to harmonize urban data and indicators based on an agreed number of cities that are a statistical representation of a country's human settlements.

The proposed criteria when identifying a national sample will take into account the number of cities in the country, the population, the size of the city, geographic location, city functionality, and economic and political importance of the city. The advantages of using a national sample of cities lies in the fact that, the approach employs an integrated and systematic approach of the city, integrates cities of all sizes, functions and types as part of a national system of cities, assists in the aggregation of locally produced city indicators, gives a platform for a unified methodology for SDG reporting. This method also makes it possible to calculate un-weighted / weighted national averages, facilitates a systematic disaggregation of information at the national, sub-national and city levels, creating a baseline data and information repository for selected cities of the national sample as well as making it possible to establish benchmarks.

Mr. Claudio Acioly, UN-Habitat, talked of the capacity building for SDGs. Cities will need to report on SDG monitoring with limited resources. Capacity building is thus a key element to successful data generation. This will require use of new tools to unpack knowledge needs. MOOC and the UN-Habitat Global Urban Lectures is a good example that offers capacity development opportunities. According to the EGM participants, some of the major challenges for monitoring SDG 11 in cities are technology, techniques and methodologies for data collection and retrieval. In addition, the lack of financial resources and institutional capacity in local governments reinforce existent problems.

A training assessment is needed to determine local government's necessities. The trend is to move the focus from institutions to individuals, to monitor and use the indicators. In addition, a single unifying tool that brings all together in a comprehensive and integrated way is required. The combination of methods to assemble data and information are Remote Sensing, Fieldwork & Reporting Analysis. In conclusion, capacity building for SDG monitoring will need to focus, peg on the job training and capacity building, prioritize, and establish dialogue to civil society and learning by doing.

Mr. Joel Jere, UN-Habitat presented on data disaggregation for the SDGs. He pointed out that in the quest to leave no one behind, it would be important to capture information at the housing unit and all the relevant groups need to be captured using the four main dimensions of disaggregation: age (children, youth, elderly), gender (women/girl child), disabilities status and orphan hood status. Other methods of disaggregation are the location, household income levels, sex, population, ethnicity, age disability and city GDP. The normal sources for this information are the national statistical systems, local governments and service providers. However, the need for disaggregation increases the cost of data collection because it requires larger sample sizes. Consequently, confidentiality becomes a major concern as well as timeliness and quality estimates. Disaggregation can be done only up to a level where confidentiality is maintained for all respondents.

Mr. Robert Ndugwa- UN-Habitat presented on the proposed database for SDG 11 targets. He stated that for the SDGs, national statistical systems would collect data according to the Fundamental Principles of Official Statistics and provide data for global reporting. The process of dissemination based on the proposed mechanism will ensure that existing regional mechanisms will facilitate, as appropriate, the data and metadata transmission process from the national to the global level. The international agencies at the global level will in turn provide internationally comparable data in the different statistical domains, calculate global, and regional aggregates. He noted that the types of data considered for goal 11 are Numeric and Textual data, Multimedia especially when advocacy is included, Geographic Information Systems (GIS) data, Real-time and Active Data Big data/privately held data and modelled data. There is a need for a uniform goal 11 database to eliminate duplication of data, to enforce integrity constraints on the database, to facilitate sharing of data among multiple agencies and provision of structures for efficient query processing, dash-boarding and controlling data redundancy.

Summary of questions and clarifications

Participants raised a main concern on the national sample of cities approach seeking clarification if the sample cities would be feasible in developed countries and how to ensure a sample that represents the composition of cities. It was also debated whether and how to incorporate culture and creativity in the sample especially in small towns where culture is stronger. The participants also wanted to know how

to avoid concentration of resources only in the sample cities if this approach is employed. Mr. Moreno responded to these issues stating that most developed countries do not have all the data needed for the SDG reporting and thus it was necessary for them to adopt the national sample of cities. It is also possible to choose these cities objectively, for example using the UN-Habitat Global Sample of cities. In the case of culture, small cities are included in the system of cites with an important consideration on the fact that poorer and smallest cities have less data.

Conclusions

- The National Sample of Cities can provide a practical way to gather SDG 11 indicators.
- Cities will need support to generate data necessary for the indicators.
- There is need for standardization.
- Data validation will be essential to eliminate biases.

Feedback on Preparatory Work for National Statistical Offices on Implementation of SDG Goal 11

(a) National Statistical Office of Kenya (James Gatungu)

The NSO of Kenya has prioritized 128 SDG indicators, based on existing data. It was stressed that there is a need for capacity development and resource assistance from within Kenya and the international community. Kenya is focusing on the disaggregation of data and aiming to meet the requirements, but this is still a major challenge.

Kenya advocates for addressing issues in regional blocks, and would like to improve communication among NSOs. Kenya is hoping to use GIS and other new technology to improve data accuracy and the efficiency of data collection. The NSO suggests that there should be an international portal for the uploading of data and for sharing data and knowledge.

(b) National Statistical Office of Bangladesh (Mr. Md Rafiqul Islam)

Bangladesh is highly vulnerable to natural disasters and climate change hazards that consequently affect both lives and livelihoods of the citizens. The country made significant progress in achieving the MDGs and wants to continue on this path. Of the current approved indicators, 25% have full data already, 50% have partial data and 25% have no existing data. However, for SDG 11, only two indicators have existing data, 8 have partial and five have no data. The NSO is only responsible for about 40% of the indicators, whilst other government departments share the remainder. The NSO has done extensive analysis of what data exists and what is required for measurement of the human settlements indicators.

Bangladesh has set up the *'SDGs Implementation and Monitoring Committee'* at high levels of government, and have appointed a coordinator for SDG Affairs in the Prime Minister's Office. The committee has collaborated with NGOs and other partners to assign responsibility within the government. The NSO has published a number of reports analyzing priorities, mapping and data gaps within the country. The NSO stressed the importance of collaboration, financial and technical assistance knowledge sharing.

(c) National Statistical Office of Thailand (Ms. Budsara Sangaroon)

Thailand has set up a committee on SDG implementation, chaired by the Prime Minister. Beneath the committee, there are three sub-committees on: 1) implementation of the SDGs; 2) understanding sustainable development; and 3) developing information systems to support sustainable development. The committees are already working and have assigned responsibilities to line ministries, identified existing data and data gaps and set priorities. There is strong collaboration between the NSO, which is coordinating data collection, and relevant line ministries.

For the human settlement indicators, there is a lack of existing data, and data is collected at irregular intervals. A key challenge is agreeing on the definitions of *slum* and *city*, as well as other terms. These

definitions will greatly affect the data collected. Thailand has also identified localization of data collection as a major challenge. It is currently developing a monitoring framework for the SDGs and will establish a strategy for development and improvement of national and global indicators.

(d) National Statistical Office of Uganda (Mr. Thomas Rutaro)

The NSO of Uganda has undertaken analysis and alignment of the National Development Plan and the SDGs, linking the goals and the data collection. The goal is to inform evidence-based decision-making, which will help achieve the SDGs. Uganda will rely more on administrative data than on broad-scale collection, such as the census. As part of reporting, the country produces annual and periodic reports. The annual reports include Annual National Development Report (NDR), the Government Annual Report (GAPR), SDG Progress Report, Annual Sector Performance Reports and MDA statistical abstracts.

Uganda has identified the counting of informal housing as a major challenge to SDG 11 data collection. The NSO calls for improved knowledge sharing and capacity building between regional and international partners. Uganda suggests 2015 as the base year for SDG reporting, as they have a wealth of data from that year.

(e) National Statistical Office of Ghana (Mr. Emmanuel George Ossei)

Ghana is currently undertaking a National Development Plan (NDP). It is also participating in the African Union Agenda 2063. The office has undertaken extensive analysis of the three agendas and has systematically linked SDG and Agenda 2063 indicators to the NDP. There is existing data for 124 indicators, and none for 20 indicators; for Tier I and II indicators respectively. For Tier III indicators, no work was done on them as at the time of this report. The office has identified a number of challenges in collecting data: a) There is currently low coverage and low disaggregation–which are both costly; b) Census dates for example are not adhered to due to financial constraints. The Agricultural Census as one example that was to be undertaken in 2013 but is getting underway only now; c) there is a lack of clarity and consensus around definitions; and d) Not all districts had Statistical Officers in their Assemblies and the line ministries. The issue of Urbanization needs a higher priority because most of the countries have not prioritized it. However, Ghana is already mobilizing to address these strategies. They are implementing a National Strategy for the Development of Statistics (NSDS II) and a new bill on decentralization. There will be a Statistical Office in each district, based on a new strengthened Statistical Service Law.

(f) National Statistical Office of Botswana (Ms. Grace Mphetolang)

In Botswana, the National Statistical Office is an autonomous body, within the Ministry of Finance. The Office has experience in monitoring international indicators, as it worked on the MDGs. The Cabinet has set up a National Steering Committee on the SDGs, which includes the UN Resident Coordinator. Under the Committee, there are Technical Working Groups on particular themes. Botswana has also developed a National Statistical Framework to guide the monitoring of the SDGs.

The Office will collect data from demographic surveys, agricultural surveys, economic surveys and household surveys and national surveys. It has also signed an MOU with the Ministry of Local Government, to ensure collection of data at the local level and cooperation with local governments. Botswana is also advocating for piloting of African methodologies and knowledge sharing. Analysis showed existing data for only three of the human settlements indicators.

(g) National Statistical Office of Tanzania (Mr. Irenius Ruyobya)

Tanzania is committed to implementing the SDGs – but like all countries, it has its own priorities. It is aiming to become a middle-income country in the medium-term. The Ministry of Finance is responsible for monitoring the SDGs, although the Office acknowledges the important role of academia, media and NGOs in monitoring. To produce the necessary statistics requires a large amount of human resources and technical knowledge, which is not readily available.

The Office has identified a number of lessons learnt from the MDGs. There were significant data gaps, largely due to capacity gaps. The collection of data was irregular and infrequent, creating a gap in data availability. This meant that it was difficult to guide policy or inform decision-making. As such, the MDGS failed to serve as a management tool.

Currently, the office has mapped the data ecosystem in Tanzania and is using ADAPT software for mapping exercises. It has also linked the SDGs with the NDP, although there are some indicators that do not align. The major challenges are disaggregation and timeliness. However, the Office is moving to address these, by building capacity and human resources, focusing on regular data collection and collaborating with local governments.

(h) National Statistical Office of Columbia (Ms. Gloria Lucia Vargas)

Colombia has created a commission for the SDGs, made up of Members of Parliament. Currently 54% of indicators have data already available, but they are not yet disaggregated. Thirty percent of the indicators have partial data while sixteen percent have no existing data. There is very little data on heritage and environmental expenditure. The office had noted the challenges of collecting data in new areas, disaggregation and collaborating with new actors. Colombia is using a 'Smart Data Strategy', which will prioritize work based on the SDGs and the NDP.

Columbia is implementing the 'Territorial Statistical Strengthening Strategy' to improve conditions for local governments to collect and record data. The aim is to localize data collection and for local entities to supply data to the national office. There have been local-level forums on SDGs and monitoring in nine cities that are already collecting local data. It also aims to improve linkages between cities. A working group of the United Nations System on monitoring SDG has supported Departamento Administrativo Nacional de Estadistica (DANE) to fill information gaps on the 16% of information in which there is no data available.

Summary of questions and clarifications

There was a substantial discussion on the use of proxy measurements. UN-Habitat made clear that, at this stage it was not possible to use proxies. However, NSOs recognized the practicality of identifying possible proxies and alternative measures, rather than have no data. NSOs agreed that land data is generally accessible, but that there are difficulties regarding communal land ownership, traditional custody, alternative land authorities and local tenure systems. There is often a lack of land registry in rural areas. NSOs supported the idea of using key rural towns to support data collection at the local level. They highlighted that there are demands for statistics from all levels and angles, but they can only collect what they are required and directed to collect. It is important to maintain an open dialogue with all relevant stakeholders.

Conclusions

This session provided participants with an understanding of the practical difficulties of collecting statistics at the national and local levels. NSOs all face similar challenges around human and financial resources. However, all have made significant progress aligning international, regional and national priorities. All have also identified existing data and data gaps, to inform the collection process and emphasized the importance of partnerships and the need for capacity building.

Group work on further improvements on indicators.

Working Group on Spatial Indicators (11.2.1, 11.3.1 and 11.7.1).

The focus of this group was to refine definitions, concepts and methodology of the various components common across all the indicators.

The following issues were addressed:

- Urban extent
- Definitions
- Disaggregation
- Frequency of data collection.

Urban extent

There was a relative wide variation of opinions in the discussion on the definitions and computation of the urban extent. The group participants identified two methodological approaches that could be possibly used to compute the urban extent, a common factor and a requirement for all the spatial indicators. The two proposed methodologies are Global Human Settlements Layer developed by Joint Research Centre-European Commission that incorporates population data in the delimitation of the urban built-up area and New York University Atlas of Urban expansion. Along with the proposed definitions, the group members raised several issues supporting their arguments and positions. Although no final methodology was chosen, the group participants agreed that:

- It would be important to compare the two methodologies and the results of the comparison would determine the final methodology to be adopted for the computation of urban extent.
- The frequency of data collection was proposed to be either 3/5 years. No conclusion was reached
- Proposed baseline years for data collection and reporting for 11.3.1: 2000-2015 and for 11.2.1 and 11.7.1: 2015**.**

Open Public Space

The group participants went ahead to discuss the definition of public space as well as the methodology.

Based on a discussion of the definition provided by the Charter of Public space, the group participants suggested that the definition of public space should comprise “all places of public use, accessible by all” as core element. The key points being *public use* and *accessible by all.* Moreover, the group discussed and found consensus on the following points:

- Concepts of public space are highly contested and are dependent on context and culture. While the above mentioned criteria of public use and general accessibility should serve as a global base line.

- The models and concepts and the typologies of public space to include, or exclude from reporting will need to be locally debated and interpreted.
- Further discussion is necessary on whether and how to include 'closed' public spaces.
- Common types of open public spaces were identified acknowledging the fact that these spaces may vary from city to city. They comprise for example parks and gardens, beaches, riverbanks and waterfronts and playgrounds.
- To test the City Prosperity Initiative methodology in the computation of open public spaces

Streets

There was consensus that streets should continue to be counted as open public spaces as in many contexts streets are the main spaces for public communication, exchange, interaction, recreation and play. Nonetheless, it was also agreed that there is a future need to better differentiate between street space that can be counted as public space and "functional" street space such as traffic lanes for cars.

Disaggregation

- 11.3.1 and 11.7.1

Group participants agreed to disaggregate only by "accessible by Persons with disabilities" and by "street space**".**

- 11.2.1: By sex, age and quality of spaces

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

- There was consensus that informal public stops should not be included in the indicator.
- A methodology for obtaining the map of the network (lines and stops) must be defined. Most cities may already have this data.
- Predictable/known frequency of services, designated stops and safe services would be important in assessing convenient access and should be part of data collection.

Working group on Indicators 11.5.1, 11.5.2, 11.b.1 and 11.b.2

Indicator 11.5.1: Number of deaths, missing persons and persons affected by disaster per 100,000 people

Indicator 11.5.2: Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services

The group participants identified that the current proposed indicator for this target is not for purpose and will not provide a stimulus for the policy change required or act as an accountability mechanism. The outline purpose for the indicators whose purpose was to act as:

- A management tool to help countries develop implementation and monitoring strategies for achieving the SDGs and to check progress.
- A report card to measure progress towards achieving a target and ensure the accountability of governments and other stakeholders for achieving the SDGs.

It was further agreed that:

- The current priority indicator proposed will not act as a management tool or report card for building resilience or reducing vulnerability.
- Rather than a narrow focus on losses, a focus on positive attributes such as capacity, governance, resources and social safety nets, along with access to and availability of systems and services will be required to measure this target. This will help reduce vulnerability to a multitude of risks and shocks.
- As such, a robust indicator for this target will need to be multidimensional and should go beyond a narrow focus on the reduction in human and economic losses.

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

Indicator 11.b.2: ***Number of countries with national and local disaster risk reduction strategies***

The group participants agreed that indicators collected for other targets should reinforce this indicator. In recognition of the limited capacity of some NSOs, there is a drive to limit the number of SDG indicators and develop multi-purpose ones. Further deliberations identified that the current proposed indicator for this target is not fit for purpose and will not provide a stimulus for the policy change required or act as an accountability mechanism. Thus, a new indicator was proposed – **"11.b.3: Number of countries with National Resilience Strategies and cities with resilience actions plans"** that needed to be included as part of these indicators.

Working group on Indicators 1.4.2, 11.a.1, and 11.c.1

Indicator 1.4.2: ***Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure***

The group participants identified that there was insufficient data on perception of secure rights to tenure. It was agreed that:

- The data collection process should be inclusive of a sampling frame
- Acknowledge the availability of other sources of data on land
- Harmonize all data sources to demonstrate feasibility
- Further discussions on the indicator to refine should be held through EGMs

Indicator 11.a.1: ***Proportion of population living in cities that implement urban and regional development plans integrating population projections and resources needed*.**

The group participants identified that the indicator has challenges of monitoring and the following suggestions were made as possible solutions:

- There is need to change the indicator to **"Number of countries that have National Urban Policy or Regional Development Plan"** that responds to population dynamics to ensure integrated territorial development and increase local fiscal span.
- Definitions of concepts required clarification and are to be refined
- The experts agreed the need to include a policy evaluation framework in the indicator.
- Further discussions on the indicator to be conducted through EGMs

Indicator 11.c.1: ***Proportion of financial support to the least developed countries that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient buildings utilizing local materials***

The emerging issues identified by the group were the lack of clarity on proportion (construction budget or national budget) and existing sources of funding and the following suggestions were made:

- There is a need to be specific on the funding needed for the construction and retrofitting of sustainable, resilient and resource-efficient buildings that clearly lacks in the metadata.
- There is a need to include the measurements of green jobs with a focus on capacity building.
- Further discussions on the indicator to be conducted through EGMs

Working group on indicator 11.3.2 and 11.4.1

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

Several conclusions by the group participants were reached concerning the metadata and methodology for measuring indicator 11.3.2 on public participation.

The group participants agreed that:

- Citizens are not normally involved in the process of urban planning and management and thus their inclusion is not guaranteed in the entire process.
- On supervision and criticism on performance of urban management, there is need for rephrasing in the metadata, as citizens cannot directly supervise the process of urban management.
- Membership in social foundations and agreements is not applicable as it relates to the unit of analysis as a person rather than the city or the process. This need to be removed in the methodological definition
- The level and diversity of cooperation in city planning/budgeting and procurements is too broad hence should be broken down to specific components or be changed.
- Participation in urban planning including designs and agreements require further clarity.

Following those suggestions, a new criterion was proposed that was to be guided by the following:

- There is a need to establish if there exist structures for citizen participation in urban planning, including designs and agreements that are direct, regular and democratic.
- There is a need to establish if there exist structures for citizen participation in urban budget decision making, that are direct, regular and democratic.
- Keep the Likert scale for data collection using “strongly disagree”, “disagree”, “agree,” “strongly agree” and give to independent evaluators for each city.
- The definitions that the group participants agreed to were:
  - *Direct –civil society accessing decision-making without intermediaries, at every stage of the urban planning and management process*
  - *Regular – at least every 6 months.*
  - *Democratic – allows for equal representation of all*
  - *Marginalized – groups that are not traditionally given equal voice in governance processes. Such as (but not limited to) low-income communities, ethnic minorities, religious minorities, sexual and gender minorities, young women and men migrants, people with disabilities.*

Indicator 11.4.1: ***Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed, World Heritage Centre designation), level of government (national, regional, and local/municipal), type of expenditure (operating expenditure/ investment) and type of private funding (donations in kind, private non-profit sector, sponsorship)***

The group participants made the following suggestions to be considered in the definition of the indicator:

- Cultural heritage to consider including ICH and underwater cultural heritage in the definition. In addition, consider the legal status of cultural /natural heritage in the definition.
- Both capital and operating expenditure to be considered in the computation of the indicator.
- There is a need to think about the impact of financing from bilateral and multilateral agencies on the results and its meaning for comparability between countries.
- The amount that urban areas, cities and municipalities spend on heritage should be produced as part of the indicator.
- Concerning the methodology, the sample city methodology proposed for Goal 11 will not be applicable to this particular indicator because:
    - *It would not reflect a representative sample of the expenditure of cultural/natural heritage in the country.*
    - *Indicator needs to include expenditure for all cultural and natural heritage*

Feedback from UN Regional Commission on Implementation of Goal 11

This session allowed for the presentation by regional commissions on the status of measuring the SDGs in their region. The commission highlighted their ongoing work in the regions and the particular challenges for each region.

(a) Economic Commission of Africa (ECA) - Ms. Fatouma Sissoko

ECA and other partners (Africa Union Commission, Africa Development Bank) held several consultations with African countries to discuss the SDG indicators and developed a common set of indicators for Africa. The common indicators were submitted to the IAEG-SDGs where it is participating as a member. In 2015, a workshop was held with African IAEG countries to promote further regional alignment and capacity building.

ECA proposes integrated monitoring in Africa, with a focus on regional priorities and overlapping areas of work. This is in line with the common African position on Habitat III and the African programme of Urbanization Data and Statistics. The AUC is also developing the African implementation framework for the NUA in line with SDG 11. There is a strong focus on monitoring and evaluation and there will be a review of core indicators by EGM.

The complexity of the measurements, the number of indicators and the technical and financial capacity of the NSOs all represent challenges in the African region. However, ECA is working closely with partners to prepare final integrated indicators, to be presented to StatCom Africa and Finance Ministers.

(b) Economic Commission for Latin America and the Caribbean (ECLAC) - Ms. Fiona LittleJohn

Countries in the LAC region are highly urbanized. The principal issues common to many cities across the region are increasing pollution levels, increasing congestion/traffic, lack of land reserved for social purposes, unequal quality of infrastructure, and lack of participation in decision-making process in cities as well as the demographic and urban transitions.

ECLAC is in the process of developing a Regional Action Plan (RAP) to implement the NUA, in partnership with civil society and governments. The Commission suggests that for a comprehensive monitoring and implementation of RAP, further indicators will be necessary, as the SDG urban settlement goals do not cover all aspects of the NUA. However, the large number of indicators and the difficulty in prioritizing them coupled by lack of consistent historical data and the vast heterogeneity on the level of capacities of municipalities within the same country and among countries in the region make measuring of the indicators challenging. ECLAC, moving forward, suggests that there is a need to select core indicators that are regionally relevant and statistically feasible. In addition, provision of technical assistance and capacity building is vital for compiling and sustaining production of SDG indicator at both regional and national level.

(c) Economic and Social Commission of Western Asia (ESCWA) - Mr. Ismail Lubbad

The Western Asia region faces a major challenge in data collection, due to the on-going conflict and wars affecting majority of its member states. Within the region, there is a vast difference between capacities of countries to measure the indicators. The commission is taking steps to improve data collection through coordinating with international and regional organizations. The regional initiatives include supporting the NSOs in developing indicators to enhance statistical coordination and harmonization at the national and regional level.

There is a need to prioritize core indicators for regional comparability purposes. The commission will undertake a data availability assessment and hopes to hold a regional workshop on the human settlement indicators in Q3 of 2017.

(d) Economic and Social Commission for Asia and the Pacific (ESCAP) - Mr. Hong Pum Chung

Asia-Pacific region is home to 60% of the global urban population. ESCAP has been consulting with member States to prioritize and domesticate (nationalize) the SDGs as well as align them with regional and sub-regional mechanisms (ASEAN, SPECA and SAARC). In this regards, ESCAP has a number of platforms for regional cooperation on urban development and SDGs including the Asia Pacific Urban Forum and Asia Pacific Forum for Sustainable Development.

Natural disasters are prevalent in the region and present a major challenge to meeting SDG 11 targets. ESCAP is leading the development and pilot testing of an international disaster-statistics framework, based on open consultation, knowledge sharing and capacity development. This framework, a first of its kind, will be aligned with both the SDGs and the Sendai Framework for Disaster Risk Reduction.

ESCAP is currently developing and pilot testing a simplified methodology that shows hazard exposure for different populations using readily available data. It is designed to be open source and transparent to ensure that it is easily replicable and immediately deployable. Member states have also called for long-term, regular capacity development. The long standing, multi-stakeholder Regional Space Application Programme for Sustainable Development promotes the use of space applications, including GIS, for urban development and planning.

(e) European Union (EU)- Ms. Alice Siragusa

In the region, there exists a strong focus on open and accessible urban data with active promotion of open access to data. The EU will focus on air quality, housing and inclusion of migrants. The EU is working with the World Bank and OECD to define 'cities' for future reference. At the Habitat III conference in Quito, the three institutions took the commitment to develop and support a global people-based definition of cities and settlements, pilot projects are ongoing.

The EU has strong existing data, and some global data. It has called for consistent reporting units, with flexibility for specific indicators. It is already collecting data for other potential indicators, such as changes in land use per capita. It is working to align the SDG indicators with the NUA. The EU will

prioritize certain indicators, but will encourage Member States and EU institutions to collect data for all the SDGs Indicators.

Questions and comments

The discussion focused on the issue of prioritizing certain goals and indicators, and there is a need for core indicators to be selected on the international level. Participants discussed the idea of whether introduction of proxy indicators is acceptable. There was general agreement that they should be a last resort.

Conclusions

The session outlined some best practices and different ideas from across the regions. It highlighted the specific challenges faced in different regions. It is vital to address these challenges with contextual responses. Capacity assessments are vital for work to continue.

Key conclusions and action points

- Refinements of the National Sample of Cities will continue and cover the following aspects-selection criteria, objectivity, political issues to overcome, level of data accuracy at lower levels, building consensus and piloting the concepts prior to scale up, inclusion of smaller towns and inclusion of culture as criteria.
- Opportunities for community data gathering will continue to be explored for urban SDGs alongside other ongoing mechanisms such as legal and institutional strengthening to integrate the same in official statistics.
- CPI as a tool for assessing progressive and integrated urban/city improvements will be modified to fit the needs for SDGs and NUA.
- Thematic areas/working groups: spatial, disaster, policy oriented, crosscutting (Gender, Youth, and Culture) and data workflows will continue working on all refinements and definitions that still require clarity.
- Data visualization tools will continue to be explored with the aim of adopting these at various levels of governance (community, sub-national, national, regional and global levels).
- Capacity development needs at various levels and for various institutions will be pursued in the road to the urban SDGs implementation.
- More work will be explored in defining the national versus local government roles in monitoring urban SDGs. The upcoming methodological country based pilot exercises will provide an opportunity to assess the current roles and recommend better working mechanisms for connecting the various governance structures for SDGs.
- Working definitions for global monitoring purposes (cities, urban extents, basic services, slums, inadequate housing, access, safe, weighted vs un-weighted populations, informality inclusion, etc.) will further be discussed as part of expert group meetings.
- Guides and modules for national statistical systems will be developed taking into account the recommendations from this meeting, as well as other issues arising from subsequent expert group discussions.
- More work on the need to document the stories that support the data will be undertaken. This is particularly important because people remember more stories than the data that is behind those stories.
- Proposals for new indicators will be reviewed in time and ensure that submissions to the IAEG-SDGs are done on time. This will also be accompanied by the proposals for dropping some indicators or timely refinements of some indicators.
- Overall, some indicators need to be serviced by perception surveys. The team will further explore modules for perception surveys and ensure that they work jointly as a team to facilitate and collect this data with appropriate scales for national and sub-national coverage.
- All metadata will be further improved by taking care of all integrations of other global and regional /subnational agendas. A key one is the African Union’s Agenda 2063, which was highlighted severally at the meeting.

- More work will go into managing institutional and knowledge gaps to service the needs of the human settlements indicators. The starting point is to ensure that in all metadata, the sections on capacity development are further strengthened.
- Where applicable, the team will work on relevant stories for the SG 2017 report on Cross-cutting storyline pertaining to HLPF theme: *Eradicating poverty and promoting prosperity in a changing world* (and Goals focused on in HLPF: 1, 2, 3, 5, 9, 14 and 17).
- Managing and complying with the tight SDG timelines: UN-Habitat will make efforts to share routinely ongoing initiatives and relevant timelines for timely response from all custodian agencies reporting on human settlements indicators/Goal 11.
- Partnership arrangements on capacity development, data collections, data/database management and reporting will be explored.

Annex 1: Meeting Agenda

First Technical Meeting for the Human Settlement Indicators of the SDGs
13th – 17th February 2017 Naivasha, Kenya
Agenda

Day 1	**Monday, 13th February 2017**
Time	**Activity**
7:30 am to 8:30 am	**Registration**
8:30 am to 9:00 am	**Introductions**
9:00 am to 9:05 am	**Discussion on the Meeting Expectations --- Moderator**
9:05 am to 9:30 am	***Session 0: Chaired by Moderator*** **Opening Remarks** • Welcome Remarks by SDG Focal Point -Robert Ndugwa- Head Global Urban Observatory UN-Habitat, UN-Habitat • Other UN agencies Rep: Jyoti Hosagrahar – Director, Division of creativity and culture UNESCO • Head of Delegation UN- Habitat Raf Tuts- Director Programmes Division, UN-Habitat
Session 1: Chaired by Moderator;	
9:30 am to 10:15 am	**Presentation: Introduction to SDGs and Goal 11 and its implication to the NUA** Speaker: Eduardo Moreno – UN-Habitat **Presentation: Implementing the New Urban Agenda** Speaker: Ben Arimah – UN-Habitat **Presentation: Value of Partnerships and Capacity Development needs for SDGs** Speaker: Claudio Acioly - UN-Habitat
10:15 am to 10:30 am	**Discussion: 15 minutes Q and A for the session 1**
10:30 am to 11:00 am	**Tea Break**
Session 2: Chaired by Raf Tuts;	
11:00 am to 11:20 am	**Indicator 11.1.1: Proportion of Urban Population living in slums, informal settlements or inadequate housing** Speaker: Claudio Torres and Kerstin Sommer – UN-Habitat
11:20 am to 11:40 am	**Presentation – Indicator 11.2.1: Proportion of Urban Population with access to convenient Public Transport** Speaker: Nao Takeuchi – UN-Habitat
11:40 pm to 12:00 pm	**Indicator 11.3.1: Ratio of Land Consumption rate to Population Growth rate** Speaker: Patrick Hall – New York University and Esther Njiru-UN-Habitat

12:00 pm to 12:20pm	**Presentation-Indicator 11.3.2: Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically** Speaker: David Thomas and Catherine Tololwo- UN- Habitat
12:20 pm to 12:40pm	**Presentation – Indicator 11.a.1: Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs by size of city** Speaker: Jane Reid – UN-Habitat
12:40 pm to 1:00 pm	**Discussion, Q and A for the session 2**
1:00 pm to 2:00 pm	**Lunch**
Session 3: Chaired by Kerstin Sommer	
2:00 pm to 2:20 pm	**Presentation-Indicator 11.4.1: Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship)** Speaker: José Pessoa - UNESCO
2:20 pm to 2:40 pm	**Presentation-Indicator 11.5.1: Number of deaths, missing persons and persons affected by disaster per 100,000 people** Speaker: Marc Gordon - UNISDR
2: 40 pm to 3:00 pm	**Presentation: 11.5.2 Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services** Speaker: Marc Gordon - UNISDR
3:00 pm to 3: 20 pm	**Presentation – Indicator 11.6.1: Proportion of urban solid waste collected and with adequate final discharge out of total urban solid waste generated by cities** Speaker: Nao Takeuchi – UN- Habitat and Graham Alabaster – UN-Habitat
3:20 pm to 3:40 pm	**Presentation – 11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)** Speaker: Carlos Dora - WHO
3:20 pm to 4:00 pm	**Discussion, Q and A for the Session 3**
4:00 pm to 4:20 pm	**Tea Break**

Session 4: Chaired by Claudio Acioly;	
4:20 pm to 4:40 pm	**Presentation – Indicator 11.7.1: Average share of built-up area of cities that is open space for public use for all by sex, age and persons with disabilities** Speaker: Manuel Madrid- gvSIG, Jose Chong, Esther Njiru – UN- Habitat
4:40 pm to 5:00 pm	**Presentation – Indicator *11.7.2:* Proportion of person's victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months** Speaker: Enrico Bisogno - UNODC
5:00 pm to 5:20 pm	**Presentation – Indicator 11.b.1 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030** Speaker: Marc Gordon - UNISDR
5: 20 pm to 5: 40 pm	**Discussion, Q and A for the session 3**
	Wrap Up Day 1

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Day 2	**Tuesday, 14th February 2017**
Time	**Activity** :
Session 5: Chaired by Jyoti Hosagrahar	
8:30 am to 8:50 am	**Presentation-Indicator 11.b.2: Number of countries with national and local disaster risk reduction strategies** Speaker: Marc Gordon - UNISDR
8:50 am to 9:10 am	**Presentation-Indicator 11.c.1: Proportion of financial support to the least developed countries that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient building utilizing local materials** Speaker: Antony Abilla – UN-Habitat
9:10 am to 9:30 am	**Presentation – Indicator 1.4.1: Proportion of population living in households with access to basic services** Speaker: Nao Takeuchi – UN- Habitat
9:30 am to 9:50 am	**Presentation - Indicator 1.4.2: Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure** Speaker: Everlyne Nairesiae – UN-Habitat
9:50 am to 10:10 am	**Presentation - Indicator 6.3.1: Proportion of wastewater safely treated** Speaker: Nao Takeuchi – UN-Habitat
10:10 am to 10:30 am	**Discussion, Q and A for the session 5**
10:20 am to 11:00 am	**Tea Break**
Session 6 : Chaired by José Pessoa	
11:00 am to 11:20 am	**Presentation - Strengthening synergies between UN- agencies and Local Government Organization for follow-up and review of SDG 11** Speaker: Edgardo Bilsky -UCLG
11:20 am to 11:40 am	**Presentation – Practical tools/twitter for monitoring SDGs** Speaker: Francis Kariuki - Government Administrative Officer- Chief Lanet-Nakuru
11:40 am to 12:00 pm	**Presentation: Role of advocacy and civil society in SDG monitoring** Speaker: Tamzin Hudson—Habitat for Humanity
12:00 pm to 12:20 pm	**Discussion, Q and A for the session 6**
12:30 pm to 1:45 pm	**Lunch**

Session 7: Chaired by Fattouma Sissoko	
1:45 pm to 2:05 pm	**Presentation – Techniques for measuring Street Connectivity and related measures** Speaker: Manuel Madrid – gvSIG
2:05 pm to 2:25 pm	**Presentation – Techniques for measurement of public spaces** Speaker: Esther Njiru – UN-Habitat
2:25 pm to 2.45 pm	**Presentation – Methodology for measuring urban expansions** Speaker: Patrick Hall – New York University
2:45 pm to 3:05 pm	**Presentation – Using Remote Sensing derived data to measure SDG: case of target 11.3 and 11.7** Speaker: Alice Siragusa – European Commission
3:05 pm to 3:25 pm	**Presentation – Earth Observation for Mapping and Monitoring Urban Expansion, Green Structure and Informal Settlements.** Speaker: Yifang Ban - KTH Royal Institute of Technology Sweden
3:25 pm to 3: 45 pm	**Discussion, Q and A for the session 7**
3:45 pm to 4:10 pm	**Tea Break**
Session 8: Chaired by Irenius Ruyobya	
4: 10 pm to 4:30 pm	**Presentation – Mobile based Technologies for Urban Data Collection** Speaker: Sophie Hadfield-Hall – University of Birmingham
4:30 pm to 4:50 pm	**Presentation – Visualization and monitoring the Indicators of the SDGs.** Speaker: Clifford Okembo - ESRI East Africa
4:50 pm to 5:10 pm	**Presentation—Big data needs for human settlements SDGs.** Speaker: Philip Thigo and Dr Abraham Korir—Office of Deputy President- Kenya
5:10 pm to 5: 30 pm	**Discussion, Q and A for the Session 8**
5:30 pm	**Wrap Up Day 2**

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Day 3	**Wednesday, 15th February 2017**
Time	**Activity :**
Session 9: Chaired by Ismail Lubbad	
8:30 am to 8:50 am	**Presentation – Health Links and Human Settlement Indicators** Speaker: Prof. Richard Lilford – Warwick University
8:50 am to 9:10 am	**Presentation: Integrating culture and heritage in Human Settlement Indicators monitoring** Speaker: Jyoti Hosagrahar -UNESCO
9:10 am to 9:30 am	**Presentation – Current Progress of SDGs Monitoring and Reporting: Challenges for Disaster Statistics case of Bangladesh** Speaker: Rafiqul Islam - Bangladesh Bureau of Statistics
9:30 am to 9:50 am	**Presentation: Integrating Youth and Gender in the collection of Human settlements Indicators** Speaker: David Thomas, Catherine Tololwo and Cheryl Enns – UN-Habitat
9: 50 am to 10:10 am	**Presentation: Greener Cities Partnership and the SDG 11.** Speaker: Isabel Wetzel – UN Habitat
10:10 am to 10:30 am	**Discussion, Q and A for the Session 9**
10:30 am to 11:00 am	**Tea Break**
Session 10- Chaired by Alice Siragusa	
11:00 am to 11:20 am	**Presentation – CPI and the City Monitoring Platform** Speaker: Eduardo Moreno – UN-Habitat
11:20 am to 11:40 am	**Presentation – Unpacking the National Sample of Cities Approach** Speaker: Robert Ndugwa and Eduardo Moreno - UN-Habitat
11:40 am to 12:00 pm	**Presentation: Capacity Building for SDG Monitoring** Speaker: Claudio Acioly – UN-Habitat
12:00 pm to 12:20 pm	**Presentation: Data disaggregation and definitions in Human Settlement Indicators Monitoring** Speaker: Joel Jere – UN-Habitat
12:20 pm to 12:40 pm	**Presentation: UN-Habitat proposal on common Database for reporting on SDG 11 targets** Speaker: Robert Ndugwa - UN- Habitat
12:40 pm to 1:00 pm	**Discussion, Q and A for the Session 10**
1:00 pm to 2:00 pm	**Lunch**

Session 11: Chaired by Richard Lilford	
2:00 pm to 3:30 pm	**Feedback from National statistical offices:** Towards the development of a toolkit on the collection of Human Settlements Indicators and disaggregation. How prepared are national statistical offices? • Expected challenges and shortcomings • Identify areas for short term achievements • Focus of overall work needed to leave no one behind • Identification of appropriate definitions and standards required • Development of methodologies and appropriate tools • Modalities for implementing new methodologies and tools Panelists: National Statistical Offices representatives from Kenya, Bangladesh, Thailand, Uganda
3:35 pm to 3:45 pm	**Tea Break**
Session 12: Chaired by Robert Ndugwa	
3:45 pm to 5:00 pm	**Feedback from National statistical offices:** Towards the development of a toolkit on the collection of Human Settlements Indicators and disaggregation. How prepared are national statistical offices? Panelists: National Statistical Offices representatives from, Ghana, Botswana, Tanzania, Colombia
5:10 pm to 5:30 pm	**Discussion, Q and A for the Session 11**
5:30 pm	**Wrap up day 3**

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Day 4	**Thursday, 16th February 2017**
Time	**Activity** :
	Session 13: Chaired by Robert Ndugwa
8:30 am to 08:50 am	**Presentation – Existing methodologies, tools and new approaches for monitoring SDGs** Speaker: Shayne Ayford - OPTRON Ltd.
8:50 am to 09:10 am	**Discussion, Q and A**
	Session 14: Led by moderator / UN- Habitat team
9:10 am to 10:30 am	**Working Group discussions: Hands on work on the Improvement of the metadata for the goal 11 Indicators.** Participants to divide themselves by their indicators of interest and form indicator working groups to work on addressing issues on how to improve the metadata and address emerging issues and concerns based on the lessons learnt during the first three days of presentation.
10:30 am to 11:00 am	**Tea Break**
11:00 am to 1:00 pm	**Working Group discussions: Hands on work on the Improvement of the metadata for the goal 11 Indicators.** Participants to divide themselves by their indicators of interest and form indicator working groups to work on addressing issues on how to improve the metadata and address emerging issues and concerns based on the lessons learnt during the first three days of presentation.
1:00 pm to 2:00 pm	**Lunch**
	Session 15; Breakout Sessions--- led by Moderator/UN-Habitat team
2:00 pm to 4:00 pm	**Task 1: Leaving no one behind – Implications to Human Settlement Indicators** • What are the opportunities existing at the local, regional and global levels necessary for enhancing alignment and collection of Human Settlement Indicators? • National particularities to consider beyond the global SDG indicator framework for monitoring the SDGs especially the human settlement indicators • How to accurately measure progress against SDG targets and determination of remaining gaps in Human Settlement Indicators
	Task 2: SDG Indicators - Global, Regional and National Frameworks and Strategies towards localization of SDGs • Localizing SDG indicators to measure Human Settlement Indicators. How can national, regional and global data collection systems inform national development strategies? • What are the options for translating the national development strategies or plans into the local context? • The role of international organizations, national institutions, national and international NGOs, private sector.

	Task 3: Capacity Development Challenges towards the monitoring of the SDGs • How to strengthen the statistical capacity of developing countries to measure, monitor and report on the sustainable development goals, targets and indicators. • Opportunities for linking Human rights, gender equality, youth and other cross cutting issues towards the collection of Human Settlement Indicators. • Resource mobilizations and new partnerships necessary to promote use of right tools, mechanisms and technologies to drive production of official statistics.
	Task 4: SDG Country Reporting Systems on Human Settlement Indicators • Describing other aspects of human settlement conditions that are prevalent in national/local circumstances when measuring Human Settlement Indicators in the different contexts. • Stakeholders' involvement in defining global, regional and national SDG reporting systems. • What new forms of data collection are needed in countries to produce the global indicators for the human settlement indicators of SDGs and goal 11? • Modalities for Data and metadata sharing and dissemination.
	Task 5: Aligning Global Action Plan and its translation into regional and national development strategies • Aligning global Action Plan with New Urban Agenda, Africa Agenda 2063, EU Agenda 2030, and translating it into national development Strategies or plans in line with SDG agenda 2030**.**
4:00 pm to 4:30 pm	**Tea-Break**
4:30 pm to 5:30 pm	Finalizing group discussions
5:30 pm	**Wrap up day 4**

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Day 5	**Friday, 17th February 2017**
Time	**Activity** :
Session 16 : Chaired by Marc Gordon	
8:30 am to 10:30 am	**Presentation of Group discussions from the results of the different themes:** **Discussants: Chairs for the different groups (25' each)** Group 1 Chair Group 2 Chair Group 3 Chair Group 4 Chair Group 5 Chair
10:30 am to 11:00 am	**Tea Break**
Session 17: Chaired by the Moderator	
11:00 am to 1:00 pm	**Localizing Human Settlement Indicators at the regional Levels; an appropriate Strategy** **Feedback from:** • ECA • ECLAC • ESCWA • ESCAP • EU Commission
1:00 pm to 2:00 pm	**Lunch**
2:00 pm to 3:30 pm	**Conclusion and way forward** Feedback from: 1. National Statistical Office Representatives (2 Representatives) 2. Representative from the UN-Regional Offices (1 Representative) 3. Jyoti Hosagrahar - UNESCO 4. Robert Ndugwa- UN- Habitat 5. Eduardo Moreno – UN- Habitat
3:30 pm to 4:00 pm	**Vote of Thanks: Claudio Acioly**
4:00 pm	**Tea Break and Departure**

Annex 2: List of participants

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Annex 3: Proposal for National Sample of Cities

Proposal to create a National Sample of Cities to enable National Governments to monitor and report on Goal 11 indicators and to produce national aggregates in a consistent and systematic manner.

Introduction – Justification

1. Cities are home to slightly more than half of the world's seven billion people. Current urbanization trends indicate that an additional three billion people will be living in cities by 2050, increasing the urban share of the world's population to two-thirds'. Cities have emerged as the focus for change and the venue where policies are realized. They have been able to forge new linkages among actors and offer innovative solutions, with the potential to be part of national agendas, and to influence regional and global development. Cities have been catalysts of productivity, technology and infrastructure development, including institutional arrangements that contribute to the enhancement of equity, social inclusion and quality of life.
2. The outcome document of the United Nations Conference on Sustainable Development, entitled "The future we want", recognizes that if well planned and developed, cities can promote economically, socially and environmentally sustainable societies. The recognition of a stand-alone Goal on cities (Goal 11) further reaffirms the role that cities can play in national development and shared prosperity.
3. However, poor planning, the absence of effective governance and legal frameworks, fragile institutions, low capacity of local authorities, and the lack of a sound monitoring mechanism, diminishes the possibility to promote long-term sustainable urban development. Evidently, there is an urgent need to put in place a global monitoring mechanism, which is adaptable to national and local levels. This would provide a general framework that allows cities, countries, and the international community to measure progress on SDGs monitoring and reporting and identify possible constraints, thus pre-empting unintended development.
4. 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 indicators under SDGs particularly where the city is the unit of analysis. Out of the 16 agreed indicators for Goal 11 that were endorsed as part of the global indicators framework by the Statistical Commission in its Forty-seven session in March 2017, 7 require to be mainly collected at local city level and not by routine data collection mechanisms such as censuses or household surveys. These indicators are 11.2.1 public transport; 11.3.1 land consumption; 11.3.2 civil society participation; 11.5.1 budget on cultural heritage; 11.6.1 solid waste; 11.62 Air quality; and 11.7.1 public space. Moreover, out of the 15 agreed indicators of Goal 11, 7 require some form of spatial data collection and analysis at local/urban level.
5. Without a standardized method of measurement and clear techniques of aggregation, countries will face serious problems to create a consistent set of cities for national level reporting that is representative of their territory, geography and history. They will also be challenged by the difficulties to report on national (urban) progress in a systematic manner over time. Without a national sample of cities, the national aggregation problem will make it difficult, if not impossible, to report at regional and global levels on locally produced urban/city level data.
6. This sample will be drawn by using a stratified technique based on the size of cities, functionality, location and other attributes that reflect a national system of cities. Monitoring and reporting using this sample will allow for better comparability, the production of time series analysis, and the possibility to connect consistent urban data and information to national policies. Member States can aggregate or disaggregate information at national and sub-national level for the refinement of the analysis and the formulation of more appropriate policies.

The Global Sample of Cities: Rational and Progress Made

7. UN Habitat, the UN agency charged with overseeing, reporting, and advising on world urbanization trends and conditions and producing human settlements data, has started to monitor these trends with a new Global Sample of Cities (2014, *http://atlasofurbanexpansion.org*). This sample was created, tested, and applied in a series of studies undertaken by a tri-partite collaboration between UN Habitat, New York University, and the Lincoln Institute of Land Policy as part of the research study "Monitoring Urban Expansion Programme".
8. Global monitoring with a sample of cities was sponsored and advocated by UN Habitat in preparation of the Habitat III Conference that took place in Quito, Ecuador, in October 2016. The use of this sample allows for national, regional and global monitoring of progress on the New Urban Agenda, the outcome document of Habitat III, and the city-related Sustainable Development Goals. It will supplement and augment country reports and assist in the preparation of global and regional aggregates.
9. The focus on cities does, call for a definition of what a city is, and UN-Habitat and partners are working on refining the operational definition and other methodological issues including using satellite imagery for mapping cities, their urban extent, built-up areas and the urbanized open space in and around them—in geographic terms. Cities in the sample are thus defined by their spatial extent, often transcending municipal boundaries or grouping many municipalities together into single spatial agglomerations.[1]
10. To draw the sample, it was necessary to identify the 2010 Universe of Cities, all cities on the planet that had 100,000 people or more in 2010. While there are still differences among countries as to the minimum population size for a settlement to be considered 'urban', there is near universal agreement that a settlement of 100,000 or more is a 'city'. There were some 2.5 billion people living in such cities in 2010, comprising some 70 per cent of the total world urban population at that time. 4,231 such cities have now been identified, in collaboration with the UN Population Division and the Chinese Academy of Sciences, and using data from multiple sources.[2]
11. At present, it is too costly and difficult to monitor each of the 4,231 cities directly. Fortunately, it is not necessary to study each city to obtain an accurate assessment of global and regional patterns. Statistical techniques allow focusing instead on a carefully constructed stratified sample of 200 cities, roughly 5 per cent of the Universe of Cities in 2010.
12. The sample is not a simple random sample from the universe of cities at large. Rather, UN-Habitat has taken all cities and looked at what region they belong to, characteristics of the country they belong to, and characteristics of the cities themselves – their population size.
13. The Global Sample of Cities has now been used to estimate the worldwide expansion of urban areas between 1990 and 2015 as well as to estimate changes in urban land consumption per capita during this period (refer to the report and database, *http://atlasofurbanexpansion.org*). The United Nations Sustainable Development Goals 2016 Report included data produced using the Global Sample of Cities for indicator 11.3.1 (Ratio of land consumption rate to population growth rate) at regional level.
14. UN-Habitat and partners are using the Global Sample of Cities to measure the quality of the urban fabric—the share of land in streets, for example –, the regulatory regimes governing land and housing and studies on housing affordability. Additional studies using this global sample are contemplated, seeking to measure drinking water quality, access to public open space, and access to jobs using public transport.

[1] Mexico City, to take one example, is considered as one city in sample but is composed of the Federal District and at least 18 additional municipalities surrounding it.

[2] The number 4,231 is a sufficiently small number of cities to be able to locate them, name them, estimate their populations, and study them together in general terms. Municipalities, by contrast, number in the hundreds of thousands.

15. Based on the Global Sample of Cities, the same method and concept is now proposed to be adapted at national level to enable Member States to use a common platform to study human settlements in a consistent manner in order to draw more scientifically acceptable inferences and produce results that are more accurate.[3]

The National Sample of Cities: Use and Rationale

16. After the adoption of SDGs indicators, UN-Habitat has received numerous requests from national governments to assist them in preparing conditions to monitor nationally on indicators that are collected at city level. This is the case with various Goal 11 indicators such as convenient use of public transport (11.2.1), land consumption (113.1), solid waste (11.6.1), air quality (11.6.2), and public space (11.7.1), as well as with other indicators with a strong urban component such as secure tenure rights (1.4.1) and basic services (1.4.2) for Goal 1.
17. National Governments also requested UN-Habitat and partners to assist them in creating 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. Otherwise, data produced on various random cities and with inconsistent number of cities in different years will make it difficult, if not impossible, to generate national aggregates in a systematic manner. This will in turn make it problematic to produce national reports.
18. National Governments and Statistical Offices recognize that it is not possible, and perhaps not necessary, to study each city in the country to monitor national trends on SDGs urban indicators. A carefully constructed sample that takes into account sub-regional and city specific characteristics and variances can be used to monitor the dominant pattern in the country's cities in an aggregated manner.
19. This is even more important recognizing that national statistical systems will be compelled to coordinate with local authorities and service providers in the collection of local data and information for SDGs in which urban/city is the unit of analysis. For that to succeed, they will have to use conventional means of data collection (i.e. data from municipalities, service providers and local communities) and modern means (i.e. satellite imagery and ICT) to ensure the integration of spatial data. The use of innovative geospatial tools in data collection systems, including census and surveys to measure and track performance of cities, is new for many national statistical agencies and local institutions. The aggregation of the city level data and information at sub-national and national level would be a challenge that requires appropriate tools and techniques to ensure comparability and proper systematization.
20. This guidance document aims to respond to the requests of various governments. The National Sample of Cities can be used to harmonize urban data and indicators using an agreed number of cities that are statistically representative of the country's urban human settlements. In addition, National Governments will be able to add additional cities for addressing other national interests, while at the same time ensuring that national reports are based on the same number of cities and conditions. The added cities can provide qualitative information, specific city analysis and possible best practice studies.
21. The national sample of cities will be drawn using sound statistical and scientific methodologies based on, but not limited to the number of cities, the population and the size of the city, geographic location, functionality, economic and political importance and other factors decided by the national government.
22. The following procedures describe the main steps that will be undertaken in the preparation of the national sample of cities:
    a. A complete listing of all cities in the country will be undertaken
    b. Definition of the criteria of city selection will be adopted
    c. Relevant city descriptive data will be collected for each city as per the criteria adopted.

[3] Annex 1 presents a complete set of Goal 11 indicators for which the national sample of cities approach will apply.

d. Cities will be grouped using major categories/dimensions of interest defined and agreed upon at the international and national levels, and a simple random sampling (SRS) of cities applied in each category[4].
e. A final list of sampled cities will be reviewed and agreed upon by selected stakeholders under the guidance of the national statistical agency.
f. Statistical analysis of the statistical representation of the city concerning the national universe of cities.
g. Testing of the National Sample of Cities in an example that involves monitoring and reporting using SDG data and indicators.
h. Preparation of regional and global reports aggregating data and information produced by the National Sample of Cities to prove the feasibility and suitability of the method.

23. National surveys and other data collection mechanisms will factor in their design the inclusion of cities from the sample to ensure that data collected in subsequent years is valid and available for these cities in a more continuous manner. Efforts from the private sector and the academia can also converge in the collection of data for the sampled cities, including the production of spatial data and non-conventional forms of data collection.

IV. The National Sample of Cities: Advantages

24. The adoption of a National Sample of Cities by Member States will bring the following advantages:
    a. Adopt an integrated approach of the city with the possibility to assess city performance in a more systematic manner.
    b. Integrate 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 centers.
    c. Assist in the aggregation of locally produced city indicators for national monitoring and reporting, and for the production of regional and global reports and analysis.
    d. Provide 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. Data collected for all cities can be generalized to produce regional and global estimates and reports.
    e. Calculate an un-weighted national average as well as weighted national averages on the overall urban SDGs indicators.
    f. Facilitate a systematic disaggregation of information at national, sub-national and city levels along key SDGs indicators and dimensions of development.
    g. Create baseline data and information for selected cities of the national sample and redefine local and national targets, propose strategies for improvement, identify setbacks, and monitor progress over time in a more consistent manner.
    h. Establish benchmarks and national targets with the same technique of standardization that will enable for comparisons of indicators and city measurements.
    i. Articulate a regional and territorial perspective to the monitoring and reporting of the SDGs.
    j. Produce consistent data and information that can be used to prioritize activities, ensure strategic investments, monitor coverage of plans and measure their impact.

[4] Example dimensions to draw the National Sample of Cities: a) location categories will vary from country to country and hence national level categories will be unique to each country (for example, cities can be grouped by geographical location (coastal and interior cities or central, east, west, south and north); b) city importance (capital cities, cities with important historical attachments, seats of government, etc.)

The National Sample of Cities: Limitations

25. The adoption of a National Sample of Cities can reduce but not to eliminate the lack of consistency and comparability in the use of indicators.
26. A combination of data sources at different administrative levels could make it difficult to homologate information and aggregate values. Monitoring progress on urban SDGs requires a focus on cities as the unit of analysis. There is a need of a common understanding of what is the definition of the city and its limits. A global operational definition of the 'city' will be fundamental in guiding national statistical systems in the compilation of the list of cities or urban areas and in the collection of information.
27. In many countries, it is possible to find a mismatch between city boundaries and urban data associated to municipalities, metropolises or urban agglomerations. National level guidance is crucial in identifying the number, boundaries and sizes of cities. Countries with a large number of cities are expected to experience more complications in the selection of cities than cities with few cities to choose from. The methodology will mostly apply if a country has more than 10 cities to select a representative sample. Countries with less than 10 cities may not need to apply a National Sample of Cities.

VI. Recommendations

28. This proposal is in line with the decisions adopted by the Statistical Commission in its Forty-seven session in 2016 in which the proposed global indicators framework for the goals and targets of the 2030 Agenda for Sustainable Development was agreed, as a practical starting point, calling for the refinement of the indicators and the need to develop a robust and high quality indicator framework.[5]
29. The establishment and use of a centralized national data platform, the clarification of methodologies used for measuring indicators and defining concepts, as well as availability of indicators and metadata in the centralized data platform are among measures that can contribute to the improvement of data availability, accuracy, timely reporting and comparability. All these issues are already providing challenges to national statistical systems, and this proposed approach will only succeed with the close collaboration of national statistical systems and selected cities and working with a diverse set of partners and departments.
30. As a follow up to various requests from several Member States and partners, this paper recommends to adopt a National Sample of Cities to monitor and report on Goal 11 indicators and to produce national aggregates in a consistent and systematic manner.
31. The paper further recommends that a comprehensive capacity building programme be initiated with the support of UN-Habitat and other partner institutions focusing on the following areas:
    a. Capacity of the national statistical agencies in addressing the broad needs to adopt a National Sample of Cities from technical and methodological aspects, including the aggregation techniques needed to produce national values for more consistent monitoring and reporting.
    b. Capacity to engage with other national institutions and local partners, including cities, services providers, private sector and academia to produce robust local city indicators that can be homologated and harmonized for national monitoring and reporting.
    c. Capacity to define and adopt an operational definition of the 'city', including the organization of data collection skills.
    d. Capacity to reinforce national statistical systems to produce spatial data that can be aggregated or disaggregated based on the National Sample of Cities.

[5] United Nations (2016) Report on the forty-seventh session, Statistical Commission, E/2016/24-E/CN.3/2016/34., 11 March 2016, New York.

e. Capacity to national and local governments to take steps to increase the broad public awareness in the use of the National Sample of Cities, including the systematic production of data and information for the cities that are part of the agreed national sample.
f. Support to Member States in developing appropriate guidelines and tools needed to the adaptation and use of the National Sample of Cities and for holding training workshop and capacity development activities.

32. Capacity to strengthen national statistical systems to adopt systems and tools to aggregate city data and information to enable national monitoring and reporting and thereafter regional and global aggregation. In light of the above, further capacity building work is needed so as to align data collection processes, methodological work, including definitions of concepts that apply to cities and SDGs requirements and integrate aspects of policy formulation applicable to related SDG targets. Enabling political, legal and institutional frameworks as well as financial support is also needed to increase the success of the city-level monitoring and reporting approach. A formalized coordination mechanism involving all data producers, with clear mandate and specified role and responsibility at all levels is key at the national and city level to ensure success of the national sample of cities approach.

Annex 4

Goal 11 (Make cities and human settlements inclusive, safe, resilient and sustainable) and selected urban related SDGs indicators

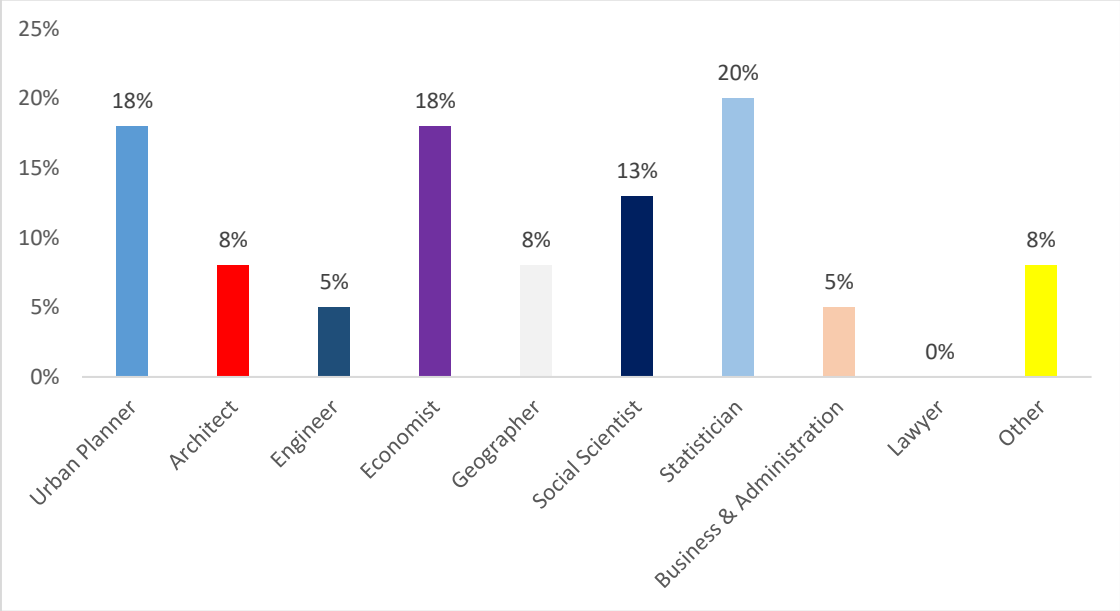
SDG Target 11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing
SDG Target 11.2 By 2030, provide access to safe, affordable, accessible and sustainable 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.	11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities
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.	11.3.1 Ratio of land consumption rate to population growth rate
	11.3.2 Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically
SDG Target 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage	11.4.1 Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship).
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	11.5.1 Number of deaths, missing persons and persons affected by disaster per 100,000 people.
	11.5.2 Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services.
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	11.6.1 Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities.
	11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted).
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	11.7.1 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities.
	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.
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.	11.a.1 Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city
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.	11.b.1 Proportion of local governments that adopt and implement local disaster- risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030a.
	11.b.2 Number of countries with national and local disaster- risk reduction strategies.

SDG Target 11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.	11. c.1 Proportion of financial support to the least developed countries that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient buildings utilizing local materials.
SDG Target 1.4. By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.	1.4.2 Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure
	1.4.1 Proportion of population living in households with access to basic services

Annex 5: Workshop Evaluation Report

Participants who attended the First Technical Meeting on human settlements indicators came from various fields of expertise ranging from statisticians, urban planners, government bureaucrats, health sector, civil society and the private sector. Majority of the participants (56%), were statisticians, urban planners and economists, with a minority proportion (44%) represented by social scientists, architects, geographers, and business administrators. Most of these participants had more than 5 years' work experience in the field of urban development, with very few participants with less than one-year experience. In line with the technical meeting objectives of increasing knowledge and awareness on human settlement indicators of the SDGs among all partners, the evaluation found that a larger number of the participants stated they had knowledge and experience with urban indicators including experiences with MDGs and some good level of SDGs.

Figure 1: Fields of expertise for the meeting participants



Most of the participants were familiar and knowledgeable of the SDGs and 2030 Agenda. They were also conversant with SDG 11 with almost all the participants (95%), agreeing that goal 11 could not be easily implemented without a greater involvement of many partners and organizations. However, the participants had mixed feelings on the timely and successful implementation of SDG 11 and NUA as a priority of many governments, with an almost equal proportion, 38% and 35% stating that it is a priority, and not a priority respectively. This was in line with the second objective, on the creation of a common understanding of the inter-related nature of the SDG 11 and other human settlement indicators. Still on the second objective, more than three quarters (78%) of the participants concurred that monitoring of the SDG 11 and the NUA would be a costly undertaking, which needs both local and international resources to achieve success. The general agreement (95%) was that the SDG 11 could not be easily implemented by few organizations and thus it was necessary to engage additional partners where some comparative advantages may exist in the collection or reporting on human settlements indicators. Representatives from NSOs cited that there were major challenges in the collection of data on urban

related indicators due to lack of capacity within the NSOs. Consequently, a greater number (73%) of the participants concurred on the need for working through the national statistical systems and involving the private sectors and other agents in this work.

When probed about the top problems in cities, most participants noted that, scarcity of affordable housing and slum formation leading to an uncontrolled growth, weak regional planning leading to uncoordinated public action and poor urban transportations and mobility leading to congestion and pollution were the top three problems in their cities. Upon further probing, the participants were of the view that indicator of target 11.1 on affordable housing and slums, had the highest chance of quick win in data collection and reporting. Indicator 11.3.2 on inclusive and sustainable urbanization through participatory urban planning, and indicator for target 11.c on financial and technical assistance in building sustainable and resilient buildings by the use local materials had the highest levels of difficulty for data collection and reporting.

Figure 2: Levels of success in data collection and reporting

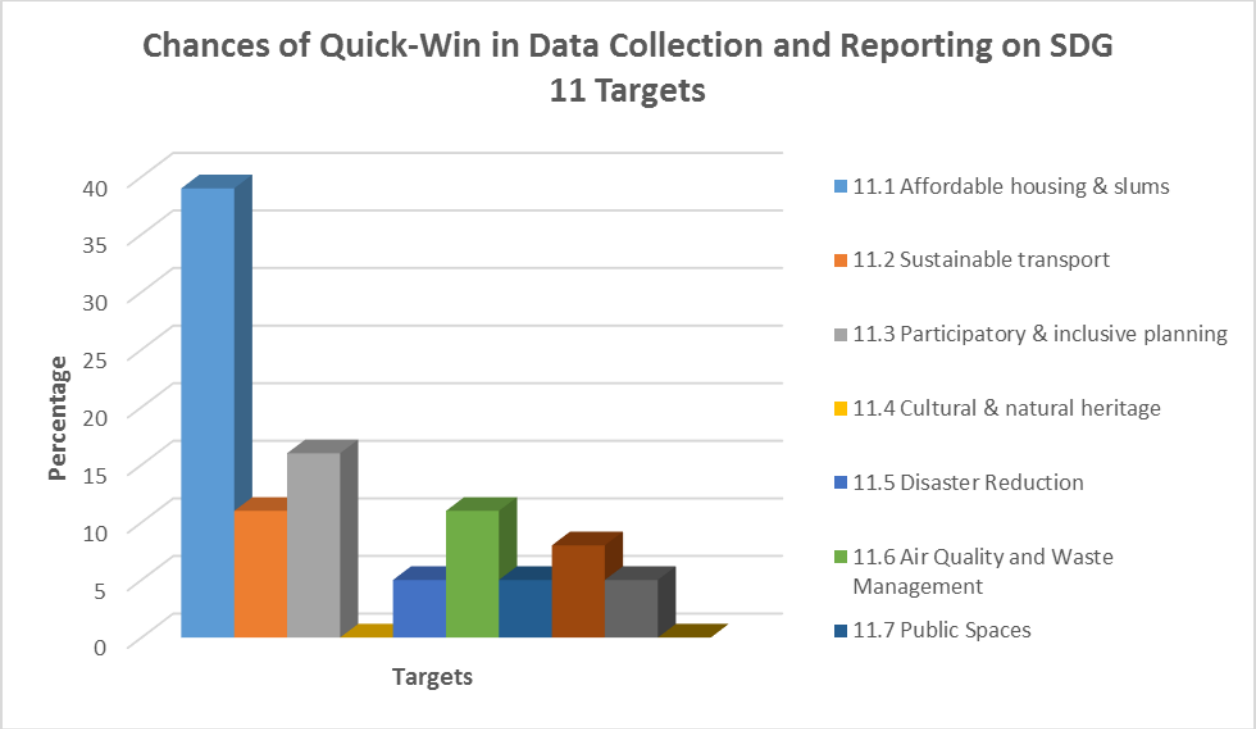
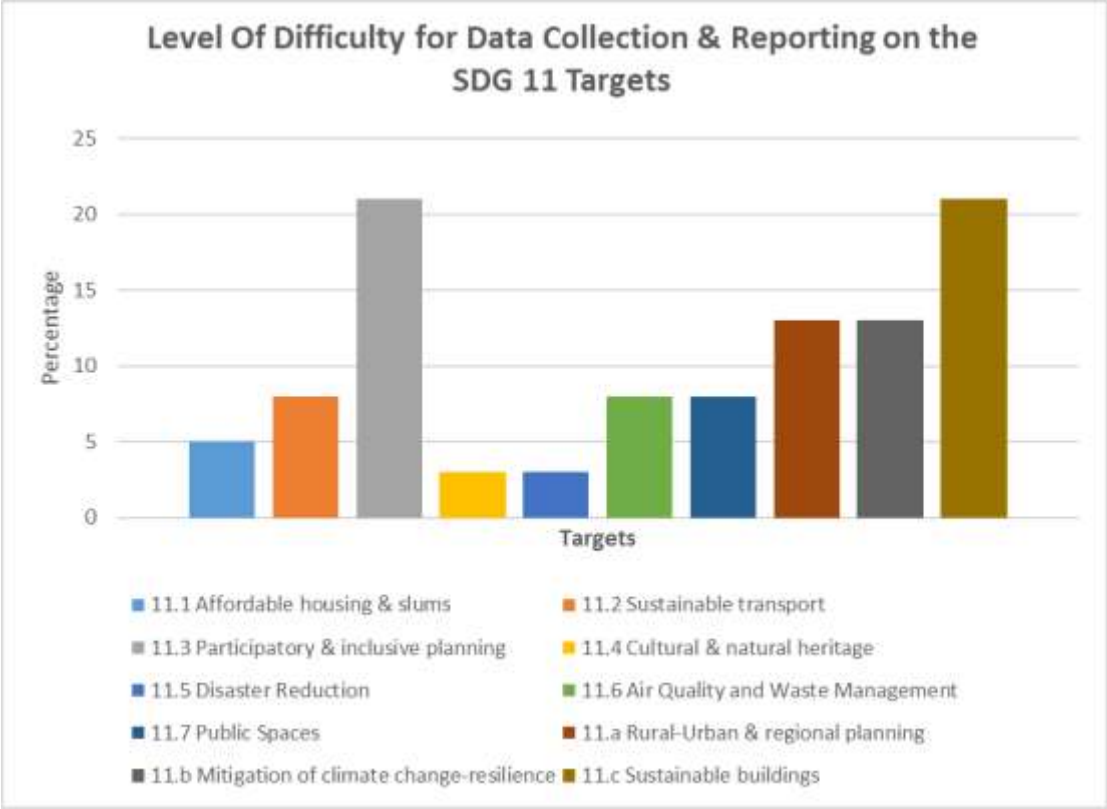
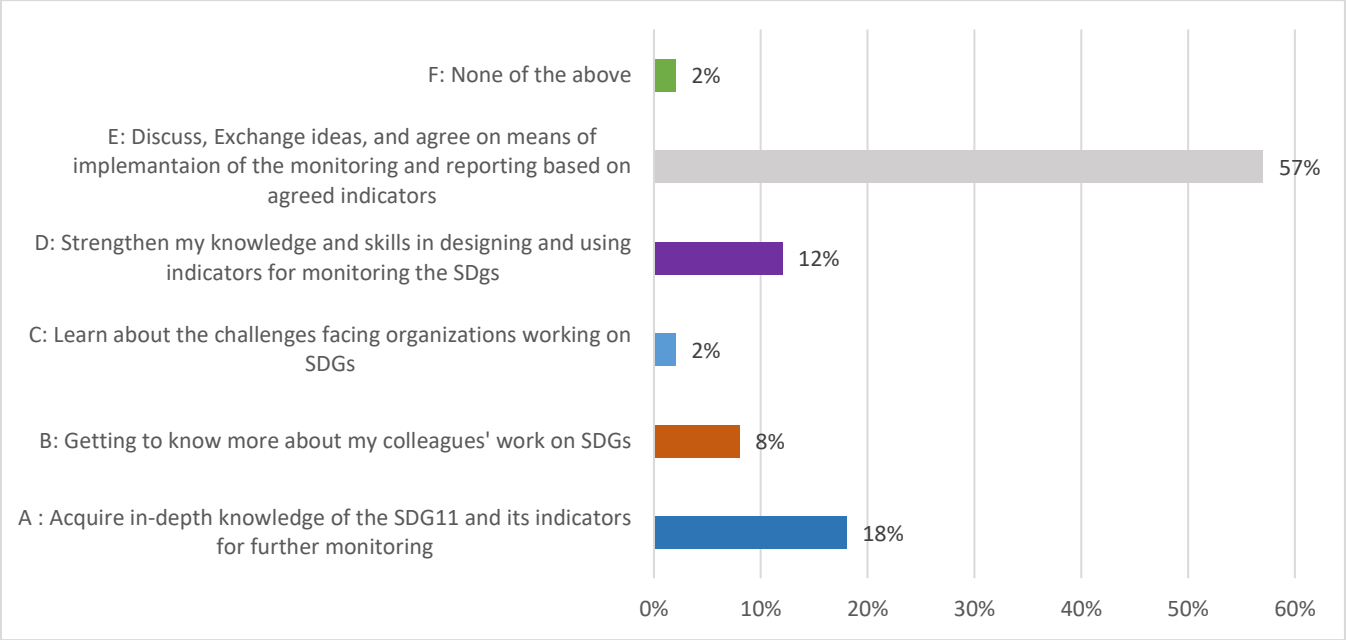


Figure 3: Challenges in data collection and reporting



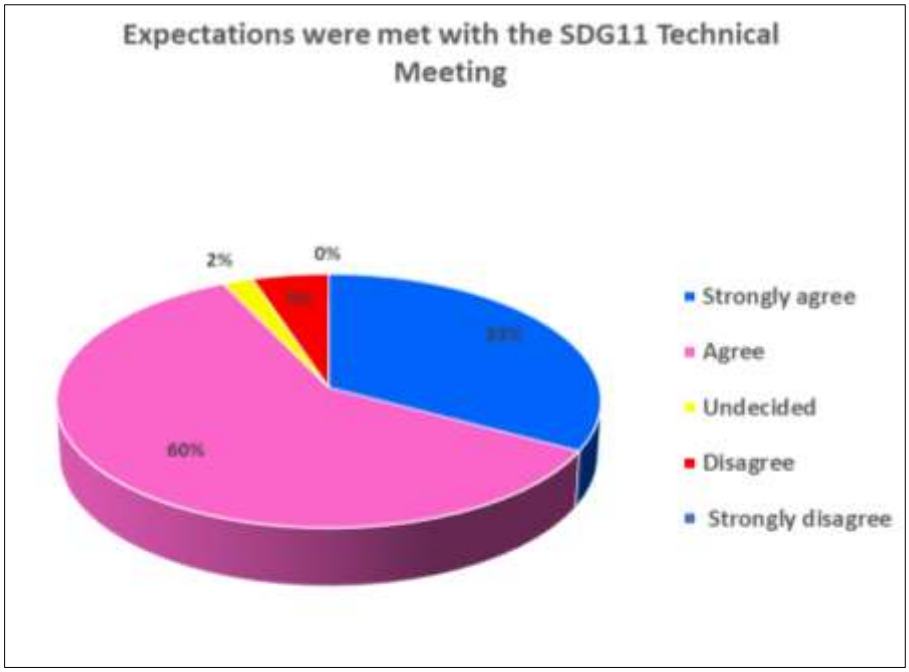
At the beginning of the workshop, majority (73%) of the participants were motivated and eager to learn more about the SDGs especially its inter-linkages with other development goals such as climate change, sustainable development, etc. At the end of the workshops, most participants acknowledged having a better understanding of goal 11 and other human settlements indicators, including noting that they were more conversant of their individual roles in ensuring the successful implementation of the urban related SDGs. This was a core objective of this workshop. An additional objective was to ensure that more partnerships arrangement are created, and this was well achieved through the various working groups including a working group on spatial related indicators that was created at the end of this workshop. Majority of the participants felt confident to further discuss, exchange ideas and support the means of implementation of the monitoring and reporting of the human settlements indicators. A special note was the acknowledgment of the representatives of the national statistical agencies who felt that they were now well equipped to apply the tools developed for monitoring the human settlements indicators in their countries, which included the 'concept of the national sample of cities'.

Figure 4: Expectation of the Participants at the beginning of the meeting



The final evaluations showed that most participants strongly felt that their expectations were met, the meeting was a valid use of time and they could think of tangible ways that it would positively affect their work. Wholly, the participants (over 90%) were satisfied with the first SDG technical meeting on Human Settlement indicators.

Figure 5: Achievement of Participants' Expectations at the end of the meeting



The participants particularly liked the working group and discussion sessions and recommended more time for discussions on problems or limitations of the indicators and ways to overcome them in future. The technical equipment, the choice of venue, and accommodation facilities were also positively evaluated. They also had clear ideas for the future work on SDG 11. Due to the novelty of some indicators and their formulation leading to interpretation expert were of the opinion that existing internationally agreed definitions should be enhanced and further refined in a new definition.

Overall, the first SDG technical meeting on human settlement indicators was good. More than 80% of the participants rated the meeting as either excellent, very good or good, signs that shows that they were very satisfied with the arrangements, duration, contents of the meeting and the results achieved during this meeting.

Figure 4: Overall rating of the First SDG 11 Technical Meeting