Progress Report

Preamble

This report is prepared and submitted to the Inter-agency and Expert Group on Sustainable Development Goal Indicators at its Fifth Meeting held from 28 – 31 March 2017 in Ottawa, Canada.

Background

The 2030 Agenda for Sustainable Development is transformative and universal. To meet the demands of the Sustainable Development Goals, it is necessary for the Global indicator framework to adequately and systematically address the issues of alternative data sources and methodologies, including geospatial information and earth observations particularly in the context of geographic location. Thus, at its forty-seventh session of the United Nations Statistical Commission in March 2016, the IAEG-SDGs noted that the integration of geospatial information and statistical data will be key for the production of a number of the indicators. As a means to address these issues the Working Group on Geospatial Information was created reporting to the IAEG-SDGs.

The creation of the IAEG-SDGs Working Group on Geospatial Information (IAEG-SDGs: WGGI) also acknowledges the 2030 Agenda demands for new data acquisition and integration approaches to improve the availability, quality, timeliness and disaggregation of data to support implementation at all levels, including "to exploit the contribution to be made by a wide range of data, including earth observations and geospatial information" (A/RES/70/1. Paragraph 76)

The Working Group was established by IAEG-SDGs in April 2016 and reports to the IAEG-SDGs as well as to UN-GGIM. The Working Group is tasked to provide expertise and advice as to how geospatial information, earth observations and other new data sources can reliably and consistently contribute to the indicators. The Working Group agreed that the its initial task was to review the global indicator framework through a 'geographic location' lens, inclusive of reviewing the metadata compiled for the indicators, identifying existing geospatial data gaps, geospatial methodological and measurement issues to augment and improve the production of statistical data, and considering the integration of statistical data and geospatial information in the production of indicators.

The primary objective of the Working Group is to ensure from a statistical and geographic location perspective that the key principle of the 2030 Agenda to leave no one behind is reflected in the Global indicator framework.

The Working Group is co-Chaired by Sweden (Ms Marie Haldorson, Statistics Sweden) and Mexico (Mr. Rolando Ocampo Alcantar, INEGI). Its web-presence is at http://ggim.un.org/UN_GGIM_wg6.html

Mexico City Expert Group Meeting of the Working Group

The Mexico City Expert Group Meeting of the IAEG-SDGs: WGGI is the second physical meeting of the Working Group and was hosted by the Government of Mexico through Instituto Nacional de Estadística y Geografía (INEGI) at its premises in Ciudad de México. It was attended by 17 of the 22 members of the Working Group. There were a total 30 participants that included invited international and national experts and a couple of observers. The Meeting was officially opened by the President of INEGI, Dr. Julio Santaella Castella, who noted the immense value of the integration of statistics and geography to produce sound, rigorous, timely and effective ways of monitoring the SDGs, and welcomed the formation of the Working Group. This first substantive technical and working meeting from 12-14 December 2016 focused and worked to identify, prioritize and begin to develop the "how" to address identified geospatial information contributions, issues and gaps to the global indicator framework and the SDGs.

The global indicator framework was reviewed through a "geographic location" lens. There was consensus around an initial short-list of 15 Indicators (4 Tier I, 3 Tier II, 8 Tier III) where geospatial information and earth observation together with statistical data can contribute directly to the production of the identified indicators. Please refer to Table A - List of Indicators where geospatial information has a direct contribution.

An additional short-list of 9 indicators (1 Tier I, 3 Tier II, 4 Tier III and 1 that has multiple classifications for its sub-indice) was identified where geospatial information and earth observation can significantly support the production of these indicators. Please refer to Table B - List of additional Indicators where geospatial information has a supporting contribution.

Geospatial information is able to provide enabling methodologies and processes for disaggregation. It was observed that the disaggregation of national statistical data is considerably strengthened through the lens of geospatial information and this is acknowledged within the five guiding principles of the Global Statistical Geospatial Framework.

Task Teams of IAEG-SDGs: WGGI

The Working Group agreed to the formation of six task teams to further advance the task before the Working Group. Three task teams focused on working through three identified indicators, namely Indicator 6.6.1, 9.1.1 and 15.3.1 and another three task teams sought to address three identified cross-cutting issues, namely data disaggregation by geographic location, alternative data sources and international (global) dataset. Some of the progress to date includes -

Task Team TT-I2 on Indicator 9.1.1, considered a country-level case study and observed the following –

- Noted that the classification of rural population vary from country to country, in this case study, peri-urban and other urban areas and towns are not officially gazetted as urban areas.
- For the purpose and reliability of this indicator, peri-urban, other urban areas and towns that are not officially gazetted as urban areas will be excluded from the rural population.
- There is no national definition for "all-seasoned road" and through a national level workshop, there is now in-country consensus on categories of classified roads that will be defined as "all-season" and to harmonise the road coding system between agencies (national and sub-national) having jurisdiction for roads.

- Household questionnaire could not produce reliable information on the "2 kilometres distance" as respondents did not know how to estimate distances.
- Geospatial information is needed to provide unbiased "2 kilometres distance" determination and the location of existing all-season road, and together with population density will improve the production of this indicator.
- Geospatial information together with geo-coded population data will improve the production of this indicator

Task Team TT-C3 addressed a cross-cutting issue, considered the role and utilisation of geospatial data from international sources, and observed the following –

- Recognised the importance of national geospatial data sources
- Noted varying update cycles across countries of their national fundamental geospatial dataset (base maps) and observed in some, the dataset could be dated
- Consider geospatial data from international sources, provided it is appropriate, useable and needed nationally to support, augment and contribute to the production of some indicators
- Possible to integrate national and international data sets (*notwithstanding certain technical considerations*), as an example, a national forest map from the year 2000 was combined with the annual global tree cover maps for the years 2000-2012 to obtain multi-temporal information on forest change, and to create a baseline estimate of forest change from 2000 to 2020.
- Geospatial data from international sources will be very useful to produce indicators that require trans-boundary or cross-border considerations
- There are satellite data/imageries that have since become freely available (*and depending on the kind of dataset freely available, there can also be some challenges in its use, often related to the spatial resolution, the need to process and interpret the data before information can be extracted*)

The Working Group suggests that it should begin to engage, sooner rather than later, Custodian Agencies and their partners in order to:

- Better understand and support the process and the progress in definition/classification and methodological development for the identified Tier III indicators.
- Support and contribute to ongoing methodological development and consultation from the geographic location, geospatial information and earth observations aspects.
- Identify additional and alternative data sources, particularly satellite data/imageries from international sources that are freely available, that could support the production of indicators.

Membership of the Working Group

Since the last reporting to IAEG-SDGs, UN-GGIM: Arab States has nominated Qatar (Ministry of Development, Planning and Statistics) as a member of the IAEG-SDGs Working Group on Geospatial Information from its region. Currently there are 23 members, 18 are representatives of either national statistical offices or national mapping and geospatial information agencies.

Third Meeting of the Working Group

The Third Meeting of the Working Group will be hosted by the Government of China through the National Administration of Surveying, Mapping and Geoinformation of China in Kunming, China from 8 – 10 May 2017. All 23 members of IAEG-SDGs: WGGI comprising expert representatives from either national statistical offices or national mapping and geospatial information agencies, United Nations Systems and international organisations are expected to attend. A number of expert representatives from member states who are not members of the Working Group, United Nations Systems and international organisations may request and be invited along to contribute to this Third Meeting.

Annex I
Results of Analysis of the Global Indicator Framework with a "geographic-location" lens

Table A
List of Indicators where geospatial information has a direct contribution

Goal	Target	Indicator	Tier	
Goal 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture	2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality	2.4.1 Proportion of agricultural area under productive and sustainable agriculture	Tier III	(1)
Goal 6. Ensure availability and sustainable management of water and sanitation for all	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	6.3.2 Proportion of bodies of water with good ambient water quality	Tier III	(2)
	6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation	Tier III	(3)
	6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	6.6.1 Change in the extent of water-related ecosystems over time	Tier III	(4)
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all	9.1.1 Proportion of the rural population who live within 2 km of an all-season road	Tier III	(5)

Goal	Target	Indicator	Tier	
	9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020	9.c.1 Proportion of population covered by a mobile network, by technology	Tier I	(6)
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	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	Tier II	(7)
	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	Tier II	(8)
	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	Tier III	(9)
Goal 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development	14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans	14.2.1 Proportion of national exclusive economic zones managed using ecosystem-based approaches	Tier III	(10)
	14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information	14.5.1 Coverage of protected areas in relation to marine areas	Tier I	(11)

Goal	Target	Indicator	Tier	
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements	15.1.1 Forest area as a proportion of total land area	Tier I	(12)
		15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	Tier I	(13)
	15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world	15.3.1 Proportion of land that is degraded over total land area	Tier III	(14)
	15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development	15.4.1 Coverage by protected areas of important sites for mountain biodiversity	Tier II	(15)

The breakdown of the above listing according to current Tier classification is as follows –

4 under Tier I
3 under Tier II
8 under Tier III

Table B
List of additional Indicators where geospatial information has a significant/supporting contribution

Goal	Target	Indicator	Tier	
Goal 1. End poverty in all its forms everywhere	1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day	1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)	Tier I	(1)
	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	Tier III	(2)
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	4.5.1 Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated	Tier I/II/II depending on indice	(3)
Goal 5. Achieve gender equality and empower all women and girls	5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation	5.2.2 Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence	Tier II	(4)

Goal	Target	Indicator	Tier	
	5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate	5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age and location	Tier II	(5)
	5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws	5.a.1 (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure	Tier III	(6)
		5.a.2 Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control	Tier III	(7)
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	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	11.7.2 Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months	Tier III	(8)
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development	15.4.2 Mountain Green Cover Index	Tier II	(9)

The breakdown of the above listing according to current Tier classification is as follows –

1 under Tier I
3 under Tier II
4 under Tier III
(one indicator has multiple classification for its indice)