ISSUE 43
July 2018

# envstats News and Notes

Environment Statistics Section
United Nations Statistics Division (UNSD)/DESA

FOCUS:

## Role of the National Statistical Office on Climate Change Related Statistics and Reporting

(Contributed by Jukka Muukkonen, Sini Niinistö and Riitta Pipatti, Statistics Finland)

**IN THIS ISSUE**



**In addition to compilation of statistics and studies, one important task of Statistics Finland is to develop the National Statistical Service in co-operation with other government officials. This task includes coordination of the National Statistical Service in Finland, and participation and coordination of Finland's international statistical co-operation. With this background, Statistics Finland has good starting points to have a strong role also on climate change related statistics and reporting.**

Climate change related statistics cover a wide range of information on drivers, emissions, impacts, mitigation and adaptation related to climate change. Statistics on greenhouse gas emissions and their anthropogenic causes are core information when monitoring and reporting on progress in meeting international mitigation targets under the United Nations Framework Convention on Climate Change (UNFCCC), Kyoto Protocol and the European Union.

In Finland the national entity for the greenhouse gas inventory is Statistics Finland. It compiles Finland's national greenhouse gas (GHG) inventory and has the overall responsibility for general management, coordination, quality assurance and control of the GHG inventory as well as coordination of participation in UNFCCC and Kyoto Protocol reviews and GHG inventory related IPCC work. Statistics Finland also produces the emission estimates for energy and industrial processes. Production of emission and removal estimates of the other sectors are based on agreements with the Finnish Environment Institute, Natural Resources Institute Finland and VTT Technical Research Centre of Finland. Statistics Finland is responsible for the annual inventory submissions to the European Union, UNFCCC and Kyoto Protocol, as well as for publishing and archiving of the greenhouse gas inventory results.

Statistics Finland also compiles technically the National Communications and Biennial Reports under the UNFCCC, describing national circumstances, impacts of climate change, climate policies on mitigation and adaptation, support to developing countries and progress towards fulfilling mitigation commitments. Other tasks include expert support for decision-makers in issues related to emissions and removals, production of information to support planning mitigation measures and monitoring the results, and advice on reporting and review related issues at international climate negotiations.

*(Continued on page 2)*

**CONTACT US**

ENVSTATS
DC2-1416
2 United Nations Plaza
New York, NY 10017
Fax: 1-(212)963-0623
E-mail: envstats@un.org

*(Continued from page 1)*

Resources and support to Finland's national inventory system are secured by agreements between Statistics Finland and relevant ministries like the Ministry of the Environment, Ministry of Agriculture and Forestry, and the Ministry of Economic Affairs and Employment. These ministries are represented in the Advisory Board of the GHG inventory, together with research institutes participating in the inventory preparation and the Energy Authority. Co-operation with co-operating organizations is continuous and well organized, including written agreements and regular meetings.

The National Statistical Office being in charge of the GHG inventory in Finland has several advantages. Statistics Finland is known as an independent and objective organization, and its data and statistics are well trusted. Access to information is good and helps to ensure completeness and quality of data. Close collaboration inside Statistics Finland between the GHG inventory unit and energy statistics, industrial statistics, and waste and other environmental statistics increases coherence and brings mutual benefits in efficiency. The national statistical office faces also challenges in GHG inventory reporting, mainly related to confidentiality. Statistics Finland has concluded agreements with some industrial companies to be able to report transparently also otherwise confidential information, and reports aggregated data only for small emission sources.

For more information see: http://tilastokeskus.fi/til/khki/index_en.html

# UNSD NEWS:

## Fifth Meeting of the Expert Group on Environment Statistics

The Fifth Meeting of the Expert Group on Environment Statistics took place in New York on 16-18 May 2018. The meeting was attended by 27 experts from countries and organisations and was chaired by Ms. Janet Geoghagen-Martin, Director, Censuses, Demographic & Social Statistics Division, Statistical Institute of Jamaica. The meeting was organized in four sessions: Session 1: Environment Statistics Toolbox, Session 2: Environment Statistics Data Collection and Surveys, Session 3: Climate Change Statistics, and Session 4: Other Work in Environment Statistics.

Session One highlighted progress made in the implementation of the Framework for the Development of Environment Statistics (FDES) and the Environment Statistics Self-Assessment Tool (ESSAT). There has been a strong uptake of the ESSAT by countries and publication of several FDES-coherent compendia. In addition, the new methodology sheets of the Manual on the Basic Set of Environment Statistics were presented as well as the Reporting Template of the Environment Statistics Self-Assessment Tool (ESSAT) and the Template of the National Action Plan.

Session Two covered data collection issues around: (i) Environmentally-related SDG indicators; (ii) Environment statistics data collection and dissemination; (iii) Waste statistics; and (iv) Environment statistics surveys, administrative data and reporting tools. UNSD presented on its regular data collection and on recent developments, including the pilot questionnaires on e-waste statistics.

Session Three covered methodological work on climate change statistics and its future development. UNSD outlined the mandates received from the Statistical Commission at the 47th and 49th sessions in 2016 and 2018 to, inter alia, review and consider the UNECE set of climate change-related statistics and indicators as a basis for developing a global set of climate change statistics and indicators, and link to the processes of UNFCCC to promote the policy and statistics interface. The session presented the progress to date, including the results of the Pilot Survey on Climate Change-related Statistics and Indicators. Discussion focused on the appropriate framework for climate change statistics and indicators; the Global Set of Climate Change Statistics and Indicators; the appropriate role of National Statistical Offices in climate change processes and statistics; and the processes and timeframe for the Global Consultation on Climate Change Statistics and Indicators.

*(Continued on page 3)*

(Continued from page 2)

During Session Four work on ocean statistics in relation to the SDGs was presented.

Further information about the meeting is available at UNSD's website at: https://unstats.un.org/unsd/envstats/fdes/fdes_eges5.cshtml and more details about some of the activities or outputs are further explained in articles below.

## UNSD's work on the development of the global set of climate change statistics and indicators

Based on the mandates that UNSD received from the Statistical Commission at the 47th session in 2016[1] to review and consider the UNECE set of climate change-related statistics and indicators as a basis for developing a global set of climate change statistics and indicators, and at the 49th session in 2018[2] to link to the processes of UNFCCC to promote the policy and statistics interface, UNSD has continued to implement these and other related recommendations from the Commission.

**Side Event at the 49th session of the Statistical Commission: Climate Change – Linking Statistics and Policy**

A side event on climate change statistics was organized by UNSD with the support of the Statistical Institute of Jamaica, the Food and Agriculture Organization of the United Nations (FAO), the United Nations Framework Convention on Climate Change (UNFCCC), and the United Nations Economic Commission for Europe (UNECE). UNSD discussed the process it has started to develop a global set of climate change statistics and indicators based on the set developed by UNECE with its Member States. After that, FAO described their tools and methodologies to produce climate change statistics related to agriculture and land use, as well temperature. As climate change statistics need to be developed taking into account existing policy frameworks, the need for data to monitor the Paris Agreement and other agreements was presented by UNFCCC. Finally, Jamaica discussed the importance of measuring climate change for Small Island Developing States (SIDS) and presented the results of its first report on climate change statistics.

**Discussion on climate change statistics at the Fifth Meeting of the Expert Group on Environment Statistics (EGES)**

As described in the article above regarding the Fifth Meeting of the EGES, Session Three covered methodological work on climate change statistics and its future development. Several presentations were made on the topic and rich discussions were held. Following the presentations and discussions, participants were assigned to four groups to discuss the future work of UNSD in the area of climate change statistics organized in five sections. Below are summaries of the group work for each of the five sections. More details can be found in the report of the meeting (https://unstats.un.org/unsd/environment/FDES/EGES5/Final%20Report.pdf).

Framework for Climate Change Statistics and Indicators: The five areas used in the Conference of European Statisticians' (CES) Recommendations on Climate Change-related Statistics (drivers, emissions, impacts, adaptation, mitigation) and those used in the IPCC framework were discussed. The Expert Group agreed to use the areas of the IPCC framework (which can be identified from the themes of the IPCC 4th and 5th Assessment Reports and the National Communications to the UNFCCC which follow these themes) to structure the global set of statistics and indicators as it would create a direct link to international policy and reporting to UNFCCC through the Paris Agreement. This would also allow easier linkage to the FDES 2013 since the IPCC framework is used in Chapter 5 of the FDES 2013 as the framework to link climate change and environment statistics.

[1] https://unstats.un.org/unsd/statcom/47th-session/documents/Report-on-the-47th-session-of-the-statistical-commission-E.pdf
[2] https://unstats.un.org/unsd/statcom/49th-session/documents/Report-on-the-49th-session-E.pdf

(Continued on page 4)

(Continued from page 3)

UNSD Pilot Survey on Climate Change Statistics and Indicators: Countries that completed the Pilot Survey described various methods they undertook to obtain the necessary information ranging from organizing stakeholder consultations, the NSO sending out an email to the stakeholders for information and then getting together to validate and finalize the Survey, and the NSO completing the Survey itself if its statistical system was centralized. However, the Expert Group recommended that the process should include a wide range of stakeholders coordinated by the NSO, rather than the NSO answering the pilot on its own given the breadth of information required. Countries also mentioned that a shorter and simpler list of indicators could be more encouraging for them to complete the Survey.

Global Set of Climate Change Statistics and Indicators: The Expert Group discussed the purpose of the global set which would ensure the inclusion of countries at various stages of development. It was agreed that the indicators should be based on the IPCC framework and linked to the UNFCCC through the Paris Agreement in order to strengthen the relationship between statistics and policy. It was discussed that the set of indicators should be limited in number in order to provide clear guidance for policy makers and to encourage an inclusive and universal set applicable to all countries. It was agreed that a limited core set with additional indicators developed in a tiering system to cater to countries with different concerns, priorities and capabilities would be useful. Further work on the development of the set of indicators will be carried out by UNSD in collaboration with the Expert Group.

Role of National Statistical Offices (NSOs): The Expert Group discussed how the NSO could gain entry to the climate change processes in country; what is the NSOs current role; and how to enhance the current role of the NSO. It was discussed that existing structures in a country may provide an entry point, for example, the case of Mexico shows that the NSO has already an entry point in climate change reporting through the national committee in place. The NSO could become the national aggregator of the climate change information by mining National Communications reported to UNFCCC and putting them into context. The role of the NSO was seen less as reporting to UNFCCC as established processes are already in place and dual systems should not be created. Instead, it was seen as providing transparency and in raising awareness of climate change as an issue among a broad range of stakeholders. To enhance the NSO role, the Expert Group discussed that NSOs could play a more active role in the national climate change committees.

Global Consultation on Climate Change Statistics and Indicators: The Expert Group mentioned the importance of respecting the UNECE process, but also understood that the work on the global set of indicators would need to have its own timeline. Therefore, it advised to take the core indicators of UNECE into consideration, but not to wait until the finalization of the UNECE contextual and operational indicators. The Global Consultation should take place in 2019-2020 and the results be ready prior to the Global Stocktake of the Paris Agreement (the first one planned for 2023 and thereafter every five years) in order to be available to collectively assess progress and implementation to address the information needs of the Global Stocktake (and prepare outputs for the Paris Agreement). The guidance to implement the Transparency Framework of the Paris Agreement will most probably be finalized at the COP24 in December 2018. The implementation guidance is expected to shed more light on the data reporting requirements of the Paris Agreement, so the exact dates of when to conduct the Global Consultation will be determined in due course.

## Updates on the Manual on the Basic Set of Environment Statistics of the FDES

The Manual on the Basic Set of Environment Statistics of the FDES complements it with detailed guidance on concepts and definitions of the statistics; relevant classifications and groupings; reference to international statistical recommendations, frameworks and standards; sources of global and regional environmental statistics and indicators; basic information on data collection to allow environmental statisticians to compile the data from line ministries into environment statistics; and suggestions on data dissemination and relevant indicators, including from the System of Environmental Accounts and the SDGs.

The Manual consists of methodology sheets focusing on sub-components or topics of the FDES. Work on the methodology sheets of the Manual is progressing well thanks to the work of the authors and contributors. The following

(Continued on page 5)

(Continued from page 4)
methodology sheets are available at https://unstats.un.org/unsd/envstats/fdes/manual_bses.cshtml:

- Land use/land cover covering Sub-component 1.2: Topic 1.2.1: Land cover, and Sub-component 2.3: Topic 2.3.1: Land use.
- Ecosystems and Biodiversity covering Sub-component 1.2: Topic 1.2.2: Ecosystems and biodiversity.
- Minerals covering Sub-component 2.1: Topic 2.1.1: Stocks and changes of mineral resources, and Topic 2.1.2: Production and trade of minerals.
- Energy covering Sub-component 2.2: Topic 2.2.1: Stocks and changes of energy resources, and Topic 2.2.2: Production, trade and consumption of energy resources.
- Crops and Livestock covering Sub-component 2.5: Topic 2.5.3: Crops, and Topic 2.5.4: Livestock.
- Water covering Sub-component 2.6: Topic 2.6.1: Water resources, and Topic 2.6.2: Abstraction, use and returns of water.
- Human Settlements covering Sub-component 5.1: Topic 5.1.1: Urban and rural population, Topic 5.1.2: Access to selected basic services, Topic 5.1.3: Housing conditions, Topic 5.1.4: Exposure to ambient pollution, and Topic 5.1.5: Environmental concerns specific to urban settlements.
- Environmental Protection Expenditures covering Sub-component 6.1: Topic 6.1.1 Government environmental protection and resource management expenditure.

Methodology sheets which have been peer reviewed by the Expert Group on Environment Statistics and are anticipated to be published soon, include:

- Forests covering Sub-component 1.2: Topic 1.2.3: Forests, Sub-component 2.3: Topic 2.3.2: Use of forest land, and Sub-component 2.5: Topic 2.5.1: Timber resources.
- Waste covering Sub-component 3.3: Topic 3.3.1: Generation of Waste, and Topic 3.3.2: Management of Waste.
- Air Quality covering Sub-component 1.3: Topic 1.3.1: Air Quality.
- Natural Disasters covering Sub-component 4.1: Topic 4.1.1: Occurrence of natural extreme events and disasters, and Topic 4.1.2: Impact of natural extreme events and disasters.
- Geology covering Sub-component 1.1: Topic 1.1.3: Geological and geographical information.
- Soils covering Sub-component 1.1: Topic 1.1.4: Soil characteristics.
- Environmental Protection, Management and Engagement, Sub-component 6.4: Topic 6.4.1: Environmental information, Topic 6.4.2: Environmental education, Topic 6.4.3: Environmental perception and awareness, and Topic 6.4.4: Environmental engagement.

At the Fifth Meeting of the Expert Group on Environment Statistics further methodology sheets were commissioned on wastewater, air emissions and ocean statistics.

## UNSD Data Dissemination on Environment Statistics

UNSD publishes global environment statistics through two main web-based products, UNSD Environmental Indicators and Country Snapshots. The environmental indicators in the areas of Inland Water Resources and Waste have been recently updated. Statistics on Water and Waste are based on official statistics supplied by national statistical offices and/or ministries of environment (or equivalent institutions) in response to the biennial UNSD/United Nations Environment Programme Questionnaire on Environment Statistics, complemented with comparable statistics from OECD and Eurostat, and water resources data from FAO Aquastat. Statistics on the other themes were compiled by

(Continued on page 6)

(Continued from page 5)

UNSD from other international sources. The updated Environmental Indicators, published in the form of indicator and time series tables are available at: https://unstats.un.org/unsd/envstats/qindicators.cshtml. The Country Snapshots have also been updated and are available at: https://unstats.un.org/unsd/envstats/snapshots/. In addition, the complete data and footnotes received from each respondent country have been uploaded to the Country Files webpage. Also, selected water and waste statistics were updated on UNData.

## Plans for the UNSD/United Nations Environment Programme Questionnaire on Environment Statistics (waste and water sections)

2018 is the year of the ninth collection round of the regular UNSD/United Nations Environment Programme Questionnaire on Environment Statistics (waste and water sections). In an effort to meet policy demand and to maintain relevance, some substantive changes are planned for this collection round.

In the waste section of the questionnaire, a table called Electronic Waste (e-waste) Generation and Collection is being added. This table will include just two variables: total e-waste generated and total e-waste collected. The addition of this table is an outcome of a pilot exercise undertaken in 2017 by UNSD (with cooperation appreciated from some 42 countries). The pilot followed consultation with the United Nations University who greatly value data being made available on e-waste. Elsewhere in the Questionnaire for this collection round, the variable, "municipal solid waste generated" at both the national and city levels is being added. In total, four additional variables are being added to the waste section.

In the water section of the questionnaire, further breakdowns of the International Standard Industrial Classification of All Economic Activities (ISIC) rev. 4 to meet Sustainable Development Goal (SDG) policy demand is being made. SDG 6 (Ensure availability and sustainable management of water and sanitation for all) contains indicators which require data to be disaggregated by industry. For this reason, three of the tables in the questionnaire (Freshwater Abstraction and Use; Water Supply Industry (ISIC 36); and Wastewater Generation and Treatment) shall request data for some industries not previously requested via the questionnaire (e.g. Mining and quarrying (ISIC 05-09), Construction (ISIC 41-43), etc.). In total, 13 additional variables are being added to the water section.

**SDG indicator 11.6.1 and the UNSD/United Nations Environment Programme Questionnaire on Environment Statistics**

SDG 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) is one of six SDG indicators which naturally calls for data from within the UNSD/ United Nations Environment Programme Questionnaire on Environment Statistics. Since data have been collected by UNSD for relevant variables at the city level for well over 10 years, countries' efforts to provide data in the past have been very useful in analyzing progress on this indicator from years gone by up until now (as illustrated in the Sustainable Development Goals Report - 2018). Furthermore, data anticipated to be received from countries in this Questionnaire's 2018 collection round and beyond shall better inform future progress on this indicator.

The prevailing method to estimate this indicator per data in the Questionnaire is a proportional estimate using two variables as shown below:

$$\frac{\text{Total amount of municipal waste collected (1000 t)}}{\text{Total amount of municipal waste generated (1000 t)}}$$

Per UNSD's experience in collecting data on these variables, and per UNSD's interactions with countries as part of capacity building exercises, the importance of the National Statistical Office (NSO) having close communications with a local, city or municipal level office is greatly beneficial. In many cases, UNSD has received comment from countries that

(Continued on page 7)

*(Continued from page 6)*

local level waste treatment plants have been the source provider of data. UNSD continues to attempt to further empower NSOs to be better able to provide data.

UNSD has also participated in expert group meetings during which discussion on metadata and associated definitions relevant to the measurement of this indicator has been a key feature. As a co-custodian agency for this indicator, UNSD has maintained close collaboration with fellow co-custodian, UN-HABITAT, and partner agency, United Nations Environment Programme.

## Environment Statistics Compendia and Surveys

Following endorsement of the FDES 2013 by the United Nations Statistical Commission at its 44th session (2013) as the framework for strengthening environment statistics programmes in countries, many countries have compiled environment statistics compendia which apply the FDES 2013. There are 21 compendia and similar publications so far shared with UNSD which are available on UNSD's website at https://unstats.un.org/unsd/envstats/fdescompendia.cshtml in Arabic, English, French, Portuguese and Spanish.

Since the December 2017 Envstats newsletter, UNSD has continued to receive additional specialized environment statistics surveys and censuses. Now some 90 surveys are available on the website (https://unstats.un.org/unsd/envstats/censuses/) and one can filter them by country, theme and year. Languages in which surveys are available include Arabic, English, French, Portuguese and Spanish.

UNSD welcomes further contributions of both country compendia that apply the FDES 2013, and surveys or censuses on environment statistics. They can be shared with the Environment Statistics Section (contact: envstats@un.org) where they may then be made available on UNSD's website.

## East African Community (EAC) Regional Compendium of Environment Statistics

UNSD has implemented the Development Account Project "Supporting Member States in developing and strengthening environment statistics and integrated environmental-economic accounting for improved monitoring of sustainable development". This project, which took place from 2015 to 2017, included two modules. The Environment Statistics Section was responsible for Module A, which focused on strengthening environment statistics in the East African Community (EAC) Secretariat and its five member states, Burundi, Kenya, Rwanda, the United Republic of Tanzania and Uganda.

The EAC Secretariat is already collecting some general environmental data from its Member States as part of its annual data collection for the EAC Facts and Figures. Though not originally planned in the project, UNSD and the EAC Secretariat decided to build on the existing EAC Facts and Figures by using the data collection and other international data, such as the environmentally-related SDG indicators, to produce a regional EAC Compendium of Environment Statistics that was published in March 2018.

The principal objective of the Compendium is to provide a first regional compilation of comparable data on short and long-term trends of environment statistics. The indicators included in the compendium and their metadata were discussed during the second and third sub-regional workshops organized as part of the Project activities, after which the Compendium was finalized. The discussions on indicators and metadata that surrounded the review and finalization of the Compendium will foster regional integration by having the countries agreeing on regional indicators and their metadata.

For further information about the Project and related activities please see: https://unstats.un.org/unsd/envstats/EAC/

## Development Account 10th Tranche Programme for Statistics and Data

UNSD is supporting the pilot countries of The Gambia and Namibia in the development of environment statistics under the Development Account 10th tranche programme. The Environmental Pillar of the DA 10th Tranche, addresses the need for environmental data and statistics for making evidence-based decisions and monitoring the Sustainable Development Goals. Initiation of this support has commenced with National Workshops on the Framework for the Development of Environment Statistics (FDES 2013) organized by the Environment Statistics Section of UNSD on 5 February 2018 in Banjul, The Gambia and on 12 February 2018 in Windhoek, Namibia. This was followed by bilateral consultations with respective Ministries, relevant government agencies and other stakeholders to conduct the Environment Statistics Assessment, using the Environment Statistics Self-Assessment Tool (ESSAT) of the FDES 2013, from 6 to 9 February 2018 in The Gambia, and 13 to 16 February 2018 in Namibia.

The Workshops provided capacity building to the relevant stakeholders on the FDES 2013; and the assessment contributed to the ongoing preparation of first Compendia of Environment Statistics for both countries, one of the initial activities in developing the national environment statistics programme. The assessment covered the organizational and institutional situation of environment statistics, and the availability of environment statistics according to the FDES 2013 and ESSAT criteria.

UNSD is continuing to support the implementation of the FDES in the two countries, including supporting national consultants who are assisting the national environment statistics units in the development of National Action Plans for Environment Statistics and the collection of environmental data for the Compendia of Environment Statistics.

## National Mission (Bilateral Consultations and Workshop) on Strengthening Environment Statistics for Improved Monitoring of Sustainable Development in Equatorial Guinea (Malabo, Equatorial Guinea, 9-13 April 2018)

UNSD organized a mission to Equatorial Guinea as part of the implementation programme for the Framework for the Development of Environment Statistics (FDES 2013) and as a follow-up to the Workshop on Environment Statistics in support of the implementation of the FDES 2013 for the Economic Community of Central African States (ECCAS) region held in Libreville, Gabon in November 2017. The mission comprised two days of bilateral consultations and a three-day national workshop.

The bilateral consultations on the first day with the Instituto Nacional de Estadística de Guinea Ecuatorial (INEGE) led to a better understanding of the main environmental issues, priorities and data gaps, as well as an overview of the work undertaken in Equatorial Guinea in environment statistics. Bilateral discussions on the last day focused on the National Action Plan for the Development of Environment Statistics and its linkage to the National Strategy for the Development of Statistics (NSDS), the preparation of the workshop report and the establishment of a Sectoral Committee on Environment Statistics.

The national workshop (see article on the Development of Environment Statistics in Equatorial Guinea under COUNTRY NEWS) brought the stakeholders together where, inter alia, the FDES components were presented by UNSD. The Environment Statistics Self-Assessment Tool (ESSAT) was used extensively in the workshop to help the participants identify the most important statistics according to national relevance and priorities for data collection. Discussions were held in working groups on the availability of the statistics and the methodology used to produce them. Finally, the participants discussed and adopted recommendations that included, inter alia, the creation of a Sectoral Committee on Environment Statistics and the National Action Plan for the Development of Environment Statistics.

## FAO ACTIVITIES

**(Contributed by Francesco N. Tubiello, Silvia Cerilli and Giulia Conchedda)**

**Data**

- The FAOSTAT "Temperature Change" database was updated in Jan 2018 to include information for the period 1961-2017. The data provide information on monthly, seasonal and annual mean temperature anomalies, i.e., temperature changes with respect to a baseline period, 1951–1980. The FAOSTAT data are the results of a collaboration between FAO and the National Aeronautics and Space Administration Goddard Institute for Space Studies (NASA-GISS).
- The FAOSTAT Emissions database, as well as the associated Emissions-intensities indicators domain, were updated in March 2018, to cover the period 1961-2016.

**Methodologies**

- The SEEA Agriculture, Forestry and Fisheries (SEEA AFF) White Cover was presented at the 49th session of the United Nations Statistical Commission in March 2018. The Commission welcomed its publication and asked countries to implement it.

**Capacity Development**

- FAO contributed to the Capacity Building Programme on Compilation and Application of Environmental-Economic Supply and Use Tables in Africa, Phase II: Face-to-face Seminar on EE-SUTs, organized by UNECA (see also article by UNECA under Regional News). The workshop took place in Pretoria, South Africa and was held 2-6 July 2018. FAO provided detailed training and step-by-step guidance towards compilation of accounts for agriculture and forestry, through numerical exercises, based on the SEEA AFF methodology. The purpose of the FAO training module, which remains available for use by interested partners, was to strengthen the capacity of African countries to: (a) Acquire a good understanding of SEEA AFF tables, concepts, definitions, classifications, and accounting framework; (b) Learn techniques and possible data sources that are important for the compilation of the SEEA AFF tables; and (c) Contribute to the permanent platform and knowledge base of the UNECA Capacity-Building Programme in the specific sectors of Agriculture, Forestry and Fisheries.

# REGIONAL NEWS:

## Economic and Social Commission for Western Asia (ESCWA) supporting member countries in Environmental Statistics and Accounts and geospatial information for the sustainable development agenda

**(Contributed by Wafa Aboul Hosn, Chief Economic Statistics, ESCWA)**

ESCWA works closely in partnership with the United Nations Environment Programme (UN Environment), UN Statistics Division (UNSD) and several regional organizations on sustainable development issues including provision of adequate tools to monitor and address the environmental dimension of the 2030 Agenda given pressing environmental challenges that the Arab region suffers from.

The environmental dimension of the 2030 Agenda is very complex and requires streamlining the environmental dimension of the agenda into national and regional plans and strategies. Furthermore, monitoring and follow-up on the environmental dimension requires collecting environmental data based on specific indicators. National statistical offices of the region face major challenges in collecting environmental data, and require technical support and capacity building to improve statistical frameworks, data sources, and modern infrastructure.

*(Continued on page 10)*

(Continued from page 9)

**ESCWA with the collaboration of The European Topic Centre of the University of Malaga, Spain (ETC-UMA) initiated a project on using GIS to gather and compile environmental statistical data strategically**

Given the complexity of current environmental issues such as climate change, population growth, food and water shortages; it is important to integrate geospatial information, statistics and sectoral data in order to monitor effectively and efficiently the progress in the environmental pillar of sustainable development. Data on environmental quality are often georeferenced and GIS techniques have proven a powerful platform to spatially link statistics on pressures and environmental quality, in addition to their usual use in presentation of environment statistics.

It has become evident that a considerable gap still exists between the demand for information and the ability of most Arab countries to routinely supply reliable environmental statistics disaggregated by sector and by type or form (product), both in terms of the availability and the quality of data. In the light of this, ESCWA with the collaboration of The European Topic Centre of the University of Malaga, Spain (ETC-UMA) initiated a project on using GIS to gather and compile environmental statistical data strategically. The overall objective of this project is to strengthen the capacity of National Statistical Offices (NSOs) of three recipient countries Jordan, Egypt and Palestine, as well as to provide advice to NSOs and environmental agencies on data sharing, integration and indicator monitoring. Furthermore, ESCWA and ETC-UMA have launched a survey (https://ec.europa.eu/eusurvey/runner/SDG_data_needs) on availability of relevant sources of spatial data for SDG indicator reporting that was sent to the three recipient countries. The results of the survey will provide an overview of the state of geospatial data availability and prepare the ground for ensuring efficient SDG indicator monitoring and coordination at national and regional levels. The survey served as the foundation for the technical assistance for each country in order to discuss the access of geospatial environmental data, identify global open spatial datasets of potential use in the national context and present the details of the SDG monitoring workflow proposed by ETC-UMA.

**ESCWA and UNSD provide on-line and on-site training on the System of Environmental and Economic Accounting (SEEA) as framework for analyzing the impact of economic policies on the environment in the Arab Region**

ESCWA organized an online training on the System of Environmental-Economic Accounting (SEEA) during the months of February-March 2018 where more than 75 participants enrolled and followed the training and virtual classes. The participants who completed the course earned certificates. Following the on-line training, ESCWA and UNSD, in cooperation with AITRS, organized a regional workshop on the System of Environmental-Economic Accounting (SEEA) from 26 to 29 March 2018 in Amman, Jordan. During the workshop, participants and experts discussed concepts, principles and methodologies for the implementation of integrated environmental and economic accounting, and how SEEA can be implemented to respond to the growing national demands for integrated environmental-economic policies. In addition, they explored existing challenges and opportunities in the implementation of the SEEA framework in the Arab region. The workshop concluded with the participants providing a list of priorities for their respective countries. Most agreed that water, energy, land, waste and environmental protection expenditures are priority accounts in the Arab region. In this context, ESCWA is finalizing the translation of the International Recommendations for Energy Statistics (IRES) that is used as a supporting document for SEEA-Energy.

## UNECE NEWS

**(Contributed by Tiina Luige, Michael Nagy and Jennifer Park)**

**Statistics for Sustainable Development Goals**

A workshop (16-17 April 2018) and an Expert Meeting (18-19 April 2018) on statistics for SDGs reviewed progress in the implementation of the *CES Road Map on statistics for SDGs*. The Road Map provides guidance to national statistical offices on establishing national mechanisms for collaboration, assessing data gaps, developing national indicators, providing data on global SDG indicators, capacity building and communication. The Road Map has been published in English and Russian, and is available also in Spanish.

(Continued on page 11)

(Continued from page 10)
The work is progressing under the guidance of a Steering Group co-chaired by Switzerland and Poland. A number of countries are setting up National Reporting Platforms (NRPs) for providing data on SDG indicators. A UNECE Task Force (chaired by Sweden) has prepared a guide and description of NRPs. The second pilot of data flows from countries to custodian agencies responsible for specific SDG indicators is carried out over the summer of 2018. Work is ongoing also to improve communication and capacity development on statistics for SDGs. An overview of UNECE and countries activities is available on a UNECE wiki on statistics for SDGs (https://statswiki.unece.org/display/SFSDG/Statistics+for+SDGs+Home).

## Climate change-related statistics

The next **Expert Forum for producers and users of climate change-related statistics** will be held from 2-4 October 2018 in Geneva, Switzerland. The Forum provides a platform for users and producers of climate change related statistics to share of experience developing official statistics and capacity for climate reporting. The meeting will discuss recent developments on climate change adaptation policies and identify related challenges for official statistics; discuss the role of official statistics in measuring extreme events and disasters; provide examples where national roadmaps on climate change-related statistics helped to enhance the collaboration between NSOs and other governmental bodies; and explore the use of geospatial data and earth observations with climate change statistics. See: http://www.unece.org/index.php?id=47805.

## Implementing the System of Environmental-Economic Accounting in the UNECE region

The third **Joint OECD/UNECE Seminar on the Implementation of SEEA** was held in Geneva from 21-22 February 2018. The seminar discussed SEEA implementation and policy applications, informed about SEEA-related activities of international organizations in the region, and presented new ways of generating data for SEEA (e.g. by using big data). The documents can be found at http://www.unece.org/index.php?id=47522.

**A regional training workshop on the SEEA and SDG indicators** was organized by UNECE in cooperation with Statistics Netherlands and UNSD from 15 - 18 January 2018 in Minsk, under the United Nations Development Account programme and with the help of additional support from the National Statistical Committee of the Republic of Belarus, Statistics Netherlands and the European Environment Agency. Thirty-five experts from Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Mongolia, Republic of Moldova, Russian Federation, Turkey, Ukraine and Uzbekistan attended the workshop and drafted action plans for SEEA implementation in their countries. See: http://www.unece.org/index.php?id=39820.

### Environment statistics and indicators

A national **Workshop on Shared Environmental Information Systems (SEIS) and Environmental Statistics for SDGs** was held in **Bishkek, Kyrgyzstan on 11-14 June 2018**. The meeting was organized by UNECE in cooperation with UNESCAP, UN Environment Europe and UNDP Kyrgyzstan. About 40 experts from the State Agency on Environment Protection and Forestry, the National Statistics Committee and other governmental agencies discussed the development of a national environmental information system, including Forest Accounts and Energy Accounts. Experts from Austria, Belarus and Kazakhstan presented their national environmental information systems and data sharing policies. Documents of the workshop are available at: http://www.unece.org/index.php?id=48489.

The next meeting of the UNECE Task Force on environment statistics and indicators will take place on 25-26 October 2018 in Geneva, see: http://www.unece.org/index.php?id=47527.

## Shared Environment Information System support to Eastern Partnership countries

**(Contributed by Jana Tafi, Roberta Pignatelli and Andy Martin, European Environment Agency )**

The availability of online environmental information is increasing in Eastern Partnership (EaP) countries according to analysis carried out by the European Environment Agency (EEA) at the beginning of 2018. Results of the analysis show that in line with national legislation, countries are producing national environmental reports that are accessible on official websites in their national languages or in English or Russian.

Moreover, the application of United Nations Economic Commission for Europe (UNECE) environmental indicators is in progress in EaP countries. Some indicators are already being used to report to international conventions and some countries have prepared indicator-based environmental reports, for example, Moldova's Measuring *the performance of green economic development in the Republic of Moldova*[3]. In general, National Statistical Offices (NSOs) are now producing and contributing key data for use in indicators and assessments. These data are disseminated via national websites in e-data base and e-statistical yearbook formats, in their national languages or in English or Russian.

Prior to this, in 2017, the EEA had assessed progress in EaP countries by interviewing producers and users of environmental accounts in line with the System of Environmental-Economic Accounting (SEEA). Key findings[4] indicated that the SEEA is an emerging component, which is included in national statistical programmes led by NSOs. Priority areas for the SEEA include land accounts, air emission accounts, water accounts and environmental protection expenditure accounts. In addition, the countries examined were ready to start SEEA activities using integrated assessments and spatial analysis. Environmental ministries also expressed their interest in the SEEA by providing support to reporting processes such as the UN Framework Convention on Climate Change and the UN Convention on Biological Diversity.

These analyses make it clear that the development of environmental information platforms at country level, in line with national e-governance processes, is crucial for regular reporting on the environment. As such, it is necessary to strengthen the capacity to establish modern information infrastructure for effective data flows, and to report results based on the principles of the Shared Environment Information System (SEIS) and an integrated approach that adds value to the development of e-governance.

The EEA currently facilitates such work in several domains through its data and knowledge sharing tools. For example, for water issues, the Water Information System for Europe[5] is the European information gateway. For land, CORINE Land Cover[6] and Copernicus related high-resolution products[7] are regularly updated and made available to download. In addition, the EEA website provides an online data viewer allowing tailor-made land cover accounts according to the Land Cover Accounts methodology[8] to be extracted. For biodiversity, the Biodiversity Information System for Europe[9] shares knowledge related to NATURA 2000[10] reporting, the Birds Directive[11] and, more broadly, the Biodiversity Clearing House Mechanism for Europe[12].

Moreover, in line with EU best practice in streamlining assessment reporting in the pan-European context, the EEA shares and provides knowledge and experience on indicator reporting in European countries, with a view to developing the capacities of national environmental and statistical institutions.

[3] http://www.green-economies-eap.org/resources/Report_EN.pdf
[4] https://eni-seis.eionet.europa.eu/east/governance/project-documents/assessment-of-self-assessments-of-the-seea-progress-in-the-eastern-partnership-countries
[5] https://www.eea.europa.eu/data-and-maps/data/wise_wfd
[6] https://www.eea.europa.eu/publications/COR0-landcover
[7] http://www.copernicus.eu/
[8] http://www.eea.europa.eu/data-and-maps/data/data-viewers/land-accounts
[9] https://biodiversity.europa.eu/
[10] http://ec.europa.eu/environment/nature/natura2000/index_en.htm
[11] http://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm
[12] http://biodiversity-chm.eea.europa.eu/

*(Continued on page 13)*

(Continued from page 12)

The above work is part of the second phase of the project 'Implementation of the SEIS principles and practices in the European neighborhood regions' (ENI SEIS II East), which was launched by the EEA in 2016. Funded by the European Union (EU) through the European Neighbourhood Instrument (ENI), it will last for 4 years. While regional coherence and a regional perspective are overarching goals, project activities also target country-specific support and technical assistance in identified national priority areas.

The ENI SEIS II East project supports the establishment of the UN Basic Set of Environment Statistics under the Framework for the Development of Environment Statistics (FDES 2013) and the SEEA in the respective countries. The overall goal of the UN Basic Set of Environment Statistics is to improve data quality and ensure the compatibility, comparability, transparency and accountability of environmental information.

The establishment of an environmental indicator catalogue is a SMART[13] solution to this goal, with the European Environmental Indicators Catalogue[14] acting as a reference and comprising a methodology and links to data and metadata. This catalogue currently includes indicators produced by Eurostat, the EEA, the Commission's Joint Research Centre and other international sources.

The ENI SEIS II East project implements actions to improve national institutional capacities for managing and using environmental data, statistics and information, and for regular reporting on the state of the environment in the six EaP countries[15]. These actions include the methodological development of data and indicators, and the strengthening of national institutional capacities for monitoring, assessment and reporting.

The Shared Environmental Information System (SEIS) is a collaborative approach that improves the collection, exchange and use of environmental data and information across Europe, based on key principles[16]. The objective of SEIS is to create an integrated, web-enabled, EU-wide environmental information system by simplifying and modernising existing information systems and processes. SEIS is also about a shift in approach, from individual countries or regions reporting data to specific international organisations, to creating online systems with services that make information available for multiple users, both people and machines.

## EUROSTAT NEWS

**(Contributed by Arturo de la Fuente, Eurostat)**

An overview of Eurostat activities on environmental statistics, environmental accounts and sustainable development indicators can be found at http://ec.europa.eu/eurostat/web/environment/overview. The following is a summary of developments in the last 6 months.

### Sustainable Development Goals (SDGs)

Eurostat has a dedicated website for SDG indicators. The latest monitoring report on progress towards the SDGs in the EU context was published in November 2017. There is an updated list of indicators for the upcoming 2018 monitoring report.

Eurostat supports the methodological development of several tier III indicators in the UN list of SDG indicators for global monitoring, closely cooperating with the relevant custodian agencies, including FAO, UNEP, UN-Habitat, WHO, UN-Water, etc. Eurostat participates in the working groups of the Inter-agency and Expert Group on SDG indicators (IAEG-SDGs) on "Geo-spatial Information" and on "SDMX", and follows the work of the IAEG-SDGs as an observer.

[13] SMART = Specific, Measurable, Achievable, Relevant and Timely.
[14] http://ec.europa.eu/eurostat/web/environment/environmental-indicator-catalogue
[15] Republic of Armenia, Azerbaijan Republic, Republic of Belarus, Georgia, Republic of Moldova and Ukraine.
[16] According to SEIS principles, information should be: (1) managed as close as possible to its source; (2) collected once and shared with others for many purposes; (3) readily available to easily fulfil reporting obligations; (4) easily accessible to all users; (5) accessible to enable comparisons at the appropriate geographical scale and the participation of citizens; (6) fully available to the general public and at national level in the relevant national language(s); and (7) supported through common, free, open software standards.

(Continued on page 14)

(Continued from page 13)

**Environmental statistics**

In January, Eurostat published a new European Commission monitoring framework for the circular economy and a dedicated website with the indicators and explanations. A new website about climate change related statistics was also published.

The results of the 2016 OECD/Eurostat Joint Questionnaire on municipal waste are online and explained in an article. The data collections on waste statistics (generation and treatment), packaging waste, waste electric and electronic equipment, end of life vehicles and batteries are being launched with a reporting deadline of June 2018.

The results of the 2016 data collection on inland waters, including regional information, were published. The results of forestry statistics are available in this article. Data on the production and trade in wood products are being collected for 2015-2016 with the Joint Forest Sector Questionnaire. Both physical and monetary forest accounting data are published and new data for the reference year 2016 are being collected with the European Forest Accounts questionnaire. New data will be published by the end of November.

**SEEA environmental accounts**

The results of the 2017 data collections on environmental taxes, material flows, air emissions, environmental sector, environmental protection expenditure and energy accounts have been released. All these data collections are annual and mandatory for EU Member States. Eurostat published the data results in the Eurostat online database, as well as articles (see Statistics Explained pages) and other material (see dedicated section on environmental statistics).

Eurostat co-ordinates an experimental project on an integrated system of national capital and ecosystem series accounting (KIP INCA) in collaboration with other EU partners. The final report on the first phase of the project (on feasibility and design) is available here. The second phase (on implementation) is advancing and scheduled to end in 2020. Latest results on some ecosystem services accounts are available in this report.

Eurostat also facilitated training courses on environmental statistics and SEEA for European compilers on the following subjects: physical environmental accounts, water statistics and accounts and ecosystem accounting. The following courses are scheduled for the second half of 2018: monetary environmental accounts (Vienna, 3-5 September), indicator systems (SDGs etc.) (Neuchâtel, 14-16 November) and waste statistics (Vienna, 4-5 December). Material from past courses is available here.

## Environmental Statistics in COMESA

**(Contributed by the Common Market for Eastern and Southern Africa (COMESA))**

The Common Market for Eastern and Southern Africa (COMESA) embarked on the development of Environment Statistics over five years ago and is pursuing this endeavor using the Framework for the Development of Environment Statistics (FDES 2013). Over five of its member states received technical support and are now in a position to produce environment statistics. The effort to carry on further the technical support is still on-going.

Beside the publications by some member states, a first compendium on environmental statistics was released in 2015 and an updated version is expected this year. However, there is still some paucity of data from member states and the progress will come over time. The COMESA Secretariat participated in international efforts to support the development of environment statistics and contributed to the technical assistance by UNSD on the project of FDES in the East African Community (EAC) countries, many of which are also COMESA members.

Given the current contexts under the backdrop of issues like climate change, sustainable development and green and blue economy, COMESA is trying to extend its environment statistics to accommodate other related statistics that can assist decision processes and augment the capacity of countries. This is particularly pertinent given that COMESA's medium term strategic plan has as one of its core pillars, the development of the blue economy. Many statistics related to the

(Continued on page 15)

(Continued from page 14)
development of the blue economy relate to the environment and climate change. COMSTAT[17] is the main tool for dissemination of COMESA Statistics. Hence it is envisaged that when more countries routinely disseminate environment statistics, these will be uploaded to the COMSTAT portal.

## Capacity Building Programme on the Compilation and Application of Environmentally Extended Supply Use Tables (EE-SUTs) in Africa

**(Contributed by Xiaoning Gong, United Nations Economic Commission for Africa)**

On 2-6 July 2018 in Pretoria, South Africa, ECA organized a seminar on the compilation of Environmentally-Extended Supply-Use Tables (EE-SUTs). The objective of this seminar was to further strengthen the technical capacity of the participating countries on the compilation and application of EE-SUTs, enable the exchange of experience and best practices between countries, and enable participating countries to move on to the third phase of the capacity building programme: The Compilation of EE-SUTs within the next two years.

High-quality economic and environmental statistics are the cornerstone for sustainable development, evidence-based policy formulation, and decision-making. To generate these statistics, a new database will need to be created meeting international standards. The EE-SUTs are both an effective tool and a substantial database for this purpose. Properly compiled, these data will allow countries to monitor and engage in their sustainable development programmes.

To this end, ECA has launched a capacity-building programme on the compilation and application of EE-SUTs. This three-phase programme on the compilation and application of EE-SUTs in Africa began with an e-training module and is being followed by a face-to-face seminar; and finally, a follow-up national workshops and on-site technical assistance.

Phase I of the e-training module commenced in March 2018 with over 370 registered participants from 49 African countries. Among them, over 170 from 45 African countries have signed up for the final assessment. The 170 have become more confident and demonstrated the courage to take the final assessment.

This seminar marked the conclusion of Phase II of the programme. The seminar featured more than 30 statistical officers and line ministry officers from 16 Member States, as well as experts from Afristat and FAO. Participating countries included: Botswana, Burundi, Cameroon, Cote d'Ivoire, Ghana, Guinea, Kenya, Lesotho, Mauritius, Morocco, Nigeria, Senegal, South Africa, Togo, Uganda, and Zambia.

With so many countries in attendance, countries were able to learn from each other, as well as exchange best practices and experiences. Six countries prepared presentations covering their country experience and discussed processes that worked in their home countries, and how practices in one country may be applicable in another country. Experts from international institutions prepared instructive lessons on the construction of EE-SUTs and participants were instructed via presentations and hands-on practice compiling EE-SUTs. The exercises were vital in preparing participants to produce EE-SUTs in their home countries.

Following the seminar, countries were invited to express interest in participating in Phase III as a pilot country and begin the process of compiling EE-SUTs.

## CARICOM Regional Strategy for Statistics Endorsed at the Highest Level – Pathway for the Strengthening of Environment Statistics

**(Contributed by Philomen Harrison, by Philomen Harrison with assistance from Faustina Wiggins, CARICOM Secretariat)**

Official Statistics in the Caribbean Community (CARICOM), inclusive of Environment Statistics, received a boost with the endorsement of the Strategic Framework of the CARICOM Regional Strategy for the Development of Statistics (RSDS) at the recently concluded (4-6 July) Thirty-Ninth Regular Meeting of the Conference of Heads of Government

[17] http://comstat.comesa.int

(Continued on page 16)

(Continued from page 15)
(HGC) of CARICOM. This endorsement by Heads of Government is in recognition of the need to strategically strengthen and improve the availability of statistics for evidence-based decision-making. Given that CARICOM Small Island Developing States (SIDS) are susceptible to natural disasters and global economic and financial shocks, the overarching theme of the CARICOM RSDS, *Building Resilience of the Caribbean Community*, seems in-keeping with these environmental and economic vulnerabilities. Some other key elements of the CARICOM RSDS include the following:

**Vision:** A CARICOM Statistical System (CSS) that is recognised for professional excellence and is the premier source of high-quality, harmonised statistics on the Community.

**Mission:** To provide CARICOM and the global community with high quality, harmonised, national and regional statistics for evidence-based decision-making, research, the empowerment of the people and for the achievement of sustainable economic growth and development.

**Core Values:** The Core Values identified are Professional Independence; Transparency; Integrity; Confidentiality; Quality; Accessibility and Customer Focus/User Orientation.

**The Ultimate Outcome to be achieved:** An efficient CARICOM Statistical System (CSS), that is responsive to the national, regional and global development agenda, enabling a resilient Community with sustained economic growth and development.

The 2030 Agenda framework is a critical driver of the strategic framework of the CSS. The actions under this strategic driver should inform on the production of the indicators to monitor the processes by which countries can achieve all 17 Goals and 169 targets. Specifically, under this strategic driver, key concerns include that of Climate Change, Natural Disasters/Disasters and the Green Economy. The key elements of this driver will seek, inter alia, to exploit the opportunities of the 2030 Agenda for the modernisation and transformation of the CSS and specifically, to mainstream statistics on environmental issues and concerns inclusive of Climate Change, Disasters/Natural Disasters and on Green Economies. Climate Change inclusive of climate-related hazards and its impact on natural disasters is another significant aspect of the 2030 Agenda that will fuel the demand for statistics to inform climate change measures, strategies and policies at the national level. It is intended to take on board along with the SDGs the Samoa Pathway that is of direct relevance to SIDS.

These two frameworks will be even more significant in the implementation of the CARICOM RSDS given that the CARICOM Council for Human and Social Development (COHSOD) one of the Organs of CARICOM, approved 125 unique Core SDG Indicators that were developed by the Technical Working Group-SDGs based on a recommendation of the Standing Committee of Caribbean Statisticians (SCCS). Several Environmental Indicators also feature in these CARICOM Core Indicators including:

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 base services
11.6.1 - Percentage of urban solid waste regularly collected and with adequate final discharge with regards to the total waste generated by cities
14.4.1 - Proportion of fish stocks within biologically sustainable levels
14.5.1 - Coverage of protected areas in relation to marine areas
15.1.1 - Forest area as a proportion of total land area

The Thirty-Ninth HGC also agreed to the development of a comprehensive Implementation Plan for the RSDS, a Resource Mobilisation Strategy, a Monitoring and Evaluation Framework and a Communication and Advocacy Strategy and encouraged Member States and the CARICOM Secretariat to allocate the necessary human resource capacity at the national and regional level. The Technical Working Groups that bring together practitioners from across the region to advance and create regional public goods to enable the availability of statistics, will be playing critical roles in the roll out of the implementation plan of the CARICOM RSDS. The Work of these TWGs comes under another key Strategic Driver of the CARICOM RSDS, Sustainable Capacity Building. that is aimed at sustaining the production and dissemination of statistics in the CSS. It is intended to have closer alignment of the TWG-SDGs and that of the other

(Continued on page 17)

(Continued from page 16)
TWGs such as the TWG-Environment Statistics. Therefore, under the CARICOM RSDS, the TWG-Environment Statistics will contribute to evidence-based decision-making, research, the empowerment of the people and for the achievement of sustainable economic growth and development.

## ECLAC Activities in Latin America and the Caribbean

**(Contributed by the Statistics Division, Economic Commission for Latin America and the Caribbean)**

**Support to SDG environment statistics and indicators in Latin American and Caribbean (LAC) countries**

In partnership with UNSD, ECLAC delivered **a regional workshop on SDG energy and environment indicators in Guatemala** in January 2018 (https://www.cepal.org/es/cursos/taller-indicadores-estadisticos-energia-ambiente). The workshop showcased country experiences from Brazil, Chile, Colombia, Costa-Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala and Peru. It particularly focused on SDG indicators related to energy (SDG 7), biodiversity (SDG 14 and 15), material flow (SDG 8 and 12) and, extreme events and disasters (SDG 1, 11 and 13).

Within the framework of ECLAC's German Cooperation (GIZ/BMZ)-supported Regional Capacity Building Program, ECLAC organized a **national capacity-building workshop** in Costa Rica in June 2018 on SDG environment indicators, in partnership with the National Statistical Office, the Ministry of Environment and the Ministry of Planning (https://www.cepal.org/es/cursos/curso-taller-metodologia-elaborar-dar-continuidad-indicadores-ambientales-ods). As a result of a deep inter-institutional work with more than 50 participants, 8 new environment indicators were calculated with national data and included fully-fleshed metadata.

Additionally, specific technical assistance regarding SDG environment indicators was provided to Argentina in April 2018 and Bolivia in May 2018. Multilateral inter-institutional meetings were held between the National Statistical Office, the Ministry of Environment, Climate Change authorities and other relevant ministries, fostering opportunities to build new **SDG environment indicators**, based on national priorities, data availability, and methodological issues. As a result, several new relevant indicators were identified to be built in the short-term. In Bolivia, a one-day workshop gathered more than 60 people from eight Ministries and a wide range of institutions, including several UN entities. This meeting is considered as a first step to establish an inter-institutional committee on environment information and fits into the broader National Statistical Development Strategy currently developed by Bolivia.

**Launch of the online platform of the Regional Network of Environment Statistics**

To foster knowledge exchange and experiences between the members of the Regional Network of Environment Statistics launched in Rio, Brazil in December 2017, ECLAC developed a dedicated online platform that was launched for World Environment Day 2018 on 5 June 2018 (https://comunidades.cepal.org/estadisticas-ambientales/es). The platform is an informal tool that allows members to participate in group discussions and webinars, share new national and regional publications and strengthen South-South cooperation.

**Second Regional Meeting of Environment Statistics Experts**

ECLAC organized the **second regional Environment Statistics Expert Meeting** in Buenos Aires, Argentina, in June 2018. It was held with the support of the German Cooperation and the Ministry of Environment of Argentina. It provided key recommendations for a strengthened development of environment statistics in the region. A wide range of topics are considered in those recommendations including environment statistics development, regional methodological notes and climate change and disaster indicators.

**First Meeting of the Disaster-Risk Reduction Statistics Working Group**

Further to its creation by the Statistical Conference of the Americas in November 2017, the Disaster-Risk Reduction Statistics Working Group held its **first in-person meeting** in Cartagena de Indias, Colombia, with support from UNISDR and ECLAC (https://www.unisdr.org/archive/58842). Representatives of eight national institutes of statistics from Latin America and the Caribbean met to discuss better ways to work together to collect data and statistics to monitor progress on reducing disaster losses as outlined in the Agenda 2030 and the Sendai Framework for Disaster Risk Reduction. The Working Group agreed on a detailed work plan to assess the regional and national situation. Following this meeting, the National Statistical Institutes participated in the Sixth Regional Platform for Disaster Risk Reduction in

(Continued on page 17)

(Continued from page 17)
the Americas, a first ever that was outlined by the Special Representative of the UN Secretary-General for Disaster Risk Reduction, Ms. Mami Mizutori, in her opening speech.

**ECLAC Regular Data Collection on Environment Statistics: CEPALSTAT and Statistical Yearbook 2018**
ECLAC's environment statistics team is carrying out the compilation and validation of environment statistics data series to update the CEPALSTAT database with the most recent data (http://estadisticas.cepal.org/cepalstat/WEB_CEPALSTAT/Portada.asp?idioma=i). The 2017 Statistical Yearbook was published in January 2018 (https://www.cepal.org/es/publicaciones/43239-anuario-estadistico-america-latina-caribe-2017-statistical-yearbook-latin). It includes new environment infographics to better showcase the most relevant issues in the Latin American and Caribbean region.

## ESCAP NEWS

**(Contributed by ESCAP Statistics Division, ESCAP Pacific Office and ESCAP-SIAP)**

**Special focus on the Ocean Accounts Partnership**
The ocean is vital to the global climate and economy, yet it is being degraded by overfishing, pollution and climate change. Policies affecting the ocean are as fragmented as the data. ESCAP is spearheading an initiative to inform Big Policy with Big Statistics. Unified ocean governance needs unified ocean accounts.

ESCAP is leveraging its convening role to build partnerships to enhance awareness and understanding of ocean issues and to accelerate action for a healthy ocean. ESCAP is pursuing its commitments to the Global Ocean Conference in 2017 to enhance partnerships to strengthen governance, data and statistics in the region to achieve SDG14. To this end, the United Nations Statistical Commission has accepted the offer of ESCAP and UN Environment to lead the development of statistical guidance on ocean accounts as part of the SEEA Ecosystem Accounting revision.

Any good statistical development begins with a needs assessment. Our assessment has shown that the main challenges in the region to sustainably managing the ocean are insufficient technical capacity, coordination and funding. Outside the region, respondents highlighted unclear mandates and lack of standards. The lack of data doesn't seem to be the main problem. The challenge is organizing it and helping people to use it (see http://www.unescap.org/resources/assessment-capacity-development-needs-countries-asia-and-pacific-implementation).

The next step is to design and test the system. In collaboration with international, regional and national partners, ESCAP is engaging national and international experts in **a Regional Expert Workshop on Ocean Accounts** in Bangkok, Thailand on 1-3 August 2018. We hope the workshop will result in an ongoing community of practice on ocean statistics involving policy experts, statisticians and scientists. It will also provide input to draft statistical guidance ready to test in selected national pilot studies: Indonesia and Vanuatu have offered to host the first pilots. The national pilot studies will also review national governance to identify gaps and good practices. More information about the workshop is available on the following webpage: http://www.unescap.org/events/asia-and-pacific-regional-expert-workshop-ocean-accounts.

**Environmental-economic accounting activities in the Pacific**
The Republic of Palau's Office of Planning and Statistics, Bureau of Budget and Planning, Ministry of Finance, with support from ESCAP, produced experimental energy and water accounts using the SEEA. The experimental energy and water accounts focused on the supply and use of fossil fuels and electricity, and piped water and sewerage services respectively, for which national information was readily available.

A knowledge product was published in December 2017, focused on lessons and achievements from implementation of the SEEA in the Pacific over the period 2015-2017. The publication highlights the development of the first SEEA accounts in four Pacific Island Countries (Federated States of Micronesia (FSM), Fiji, Palau and Samoa), diagnostic readiness assessments for the SEEA in five Pacific Island Countries (FSM, Fiji, Palau, Samoa and Vanuatu), a dedicated Pacific regional training course, and several in-country capacity building efforts. It also identifies lessons from implementation experiences, and signposts areas of future work. The publication can be downloaded at http://www.unescap.org/resources/implementation-system-environmental-economic-accounting-pacific-achievements-and-lessons

(Continued on page 19)

(Continued from page 18)

**Technical assistance on FDES/SEEA implementation (December 2017-May 2018)**

- Training and technical assistance mission on energy and solid waste accounts, Thimphu, Bhutan, 19-21 March 2018;
- Technical assistance workshop on water accounting, Manila, the Philippines, 10-12 April 2018;
- Technical meeting on natural capital accounting and valuation of ecosystem services, in collaboration with the National Bureau of Statistics of China (NBS), United Nations Statistics Division, the United Nations Environment and the European Union, China, 21-28 May 2018;
- Technical support to review Samoa's solid waste accounts and Malaysia's water accounts.
- Technical assistance and collaborations with national agencies in the Philippines and Thailand to develop and document case studies with implementation of guidance from the handbook of the Asia-Pacific Expert Group on Disaster-related Statistics: Disaster-related Statistics Framework (DRSF).

**Upcoming activities (June-December 2018)**

- National workshop on Shared Environmental Information Systems (SEIS) and environmental statistics for the Sustainable Development Goals (SDGs), Bishkek, Kyrgyzstan, 11-13 June 2018.
- Assessment and work planning workshop for improving energy balances, Hanoi, Viet Nam, 17-19 July 2018.
- Asia and the Pacific regional expert workshop on ocean accounts, Bangkok, Thailand, 1-3 August 2018.
- Technical assistance mission to finalize solid waste and water accounts, Malé, the Maldives, 27-30 August 2018.
- Environment statistics and accounts session in the SIAP training on theory and practices in official statistics for monitoring Sustainable Development Goals (SDGs), August-December 2018.
- Assessment/training/work planning mission on ocean accounts, Port Vila, Vanuatu, 10-12 September 2018
- Technical assistance mission on water, energy and solid waste accounts, Apia, Samoa, 13-14 September 2018
- Training programme on climate change statistics and the System of Environmental-Economic Accounting for Pacific island countries, Nadi, Fiji, 17-21 September 2018.
- A paper prepared by ESCAP, in connection with the methodological development work of the Asia-Pacific Expert Group will be presented at the 16th Conference of the International Association for Official Statistics (IAOS), co-organized by IAOS and the OECD, Paris, France, 19-21 September 2018.
- Follow-up technical assistance mission on energy, waste, water accounts and assessment/training/work planning mission on ocean accounts, Suva, Fiji, 24-26 September 2018.
- Training and technical assistance workshop for finalizing the improved energy balances, Hanoi, Viet Nam, September 2018.
- National workshop on environment statistics for the Democratic People's Republic of Korea, second half of 2018.

# COUNTRY NEWS

## Environmental Statistics in Burundi

**(Contributed by Burundi Institute of Statistics and Economics Studies (ISTEEBU))**

The Burundi Institute of Statistics and Economics Studies (ISTEEBU) published its first environment statistics compendium in 2016 based on the recommendations of the Technical Committee of Statistical Information. The Second Compendium was published in 2017 with references to the Framework for the Development of Environment Statistics (FDES 2013) components, and for which gaps were identified by applying the Environment Statistics Self-Assessment Tool (ESSAT). The third publication will be finalized soon with the same methodology. The ESSAT has allowed Burundi to establish the National Strategy for the Development of Environment Statistics (NSDES 2018-2022). With the e-training organized by UNESCAP and UNECA, Burundi is now starting the implementation of selected environmental-economic accounts.

The project will begin by the digitalization of environment statistics followed by the collection of all missing data, and

(Continued on page 20)

(Continued from page 19)
will be followed by the implementation of selected environmental-economic accounts. In our vision, the project will include energy resources, waste, water resources, mining resources, forestry resources and climate change. Three results will be attained with the project: (i) the platform between the main producers of statistics and ISTEEBU will be strengthened; (ii) the implementation of FDES 2013 via the rapid availability of data will be improved, which means that the Burundi environment statistics compendium will be completed in accordance with the recommendations of the FDES 2013; and (iii) an environmental-economic accounts report will be produced module by module. To reach these objectives, Burundi is still looking for financial support from partners. In conclusion, ISTEEBU remains committed to promote environmental statistics for sustainable development.

## Publication of "Environmental Statistics – 2016" in Cabo Verde

**(Contributed by Ulisses Cruz, Instituto Nacional de Estatística de Cabo Verde )**

The National Statistics Institute of Cape Verde (INE), through its Department of Demographic and Social Statistics, published in June this year the report "Environmental Statistics - 2016" on its website (http://ine.cv/publicacoes/estatisticas-do-ambiente-2016/). It is also available on UNSD's website (https://unstats.un.org/unsd/envstats/fdescompendia.cshtml).

The publication of this first national report brings a compilation of statistical reference information produced by the different institutions that produce environmental statistics, which integrate the National Statistical System (SEN) in Cape Verde, as well as other national institutions that, although not part of the SEN, produce relevant environmental statistics for the country.

The purpose of the publication of the "Environmental Statistics - 2016" report is to provide users (national and international) with quality statistical information in order to improve knowledge about the state of the environment, the most important environmental changes that occur through time and space, as well as supporting policy and decision-making in the field of environment and sustainable development.

This publication is organized in six environmental components, according to the classification indicated by the Framework for the Development of Environment Statistics (FDES 2013): 1. Environmental Conditions and Quality; 2. Environmental Resources and their Use; 3. Residuals; 4. Extreme Events and Disasters; 5. Human Settlements and Environmental Health; and 6. Environmental Protection, Management and Engagement.

The report "Environmental Statistics - 2016" is the culmination of several activities related to environmental statistics in which INE has participated since 2015: Workshop on Environment Statistics in support of the implementation of the FDES 2013 (conducted by UNSD in collaboration with ECOWAS in Lomé, Togo in 2015), implementation of the National Seminar on Environment Statistics (funded by the European Development Fund in 2016), publication of the "Integrated Environmental Statistics System (ISIS) - Methodological Document" (2016), hosting of an International Technical Assistance Mission (funded by the World Bank in 2016) and participating in an e-Training on FDES (jointly prepared by UN Economic Commission for Africa and UNSD, 2017).

## Development of Environment Statistics in Equatorial Guinea

**(Contributed by Ramon Bee Engonga Oyana, National Institute of Statistics of Equatorial Guinea )**

### Introduction

In 2017 the National Institute of Statistics of Equatorial Guinea (INEGE) published its first statistical yearbook in which some data collected from other national agencies were related to the environment. However, these data represent only a subset of a larger set of data that the country would like to collect and produce. Therefore, INEGE asked UNSD for training on the Framework for the Development of Environment Statistics (FDES 2013) in order to improve the production of environment statistics in the country.

(Continued on page 21)

(Continued from page 20)

The training workshop on environment statistics carried out in the country from 10 to 12 April (see article on the National Mission in Equatorial Guinea by UNSD under UNSD NEWS) has been a great opportunity for Equatorial Guinea. Indeed, this was an opportune time for Equatorial Guinea when it needed preparation to begin with the elaboration of environment statistics. Being able to bring all stakeholders together, learn about international methodologies, and agree on a series of measures to improve environment statistics was of great assistance to the country.

**Current Plans**

After the workshop and learning more about environment statistics, it was possible to adopt different internal measures that will help to give fruit to such training. These measures decided at the end of the workshop can be found below:

1. Setting up the National Council of Statistics and the Monitoring Committee of statistical projects;
2. Creation of a Sectoral Committee on Environment Statistics;
3. Design of a concrete National Action Plan for the Development of Environment Statistics;
4. Proposal of a roadmap that will help INEGE preparing the National Action Plan for the Development of Environment Statistics;
5. Look for mechanisms that will lead to actions that help integrating the FDES 2013 in the National Action Plan for the Development of Environment Statistics to ensure better production and financing;
6. Prepare National Work Plans, which involve mainly technicians, for the production of priority environmental indicators for Equatorial Guinea;
7. Carry out the implementation of statistical units in all departments of the National Statistical System;
8. Sensitize and promote data exchange activities for the production and adoption of environmental indicators (sensitize the population);
9. Design mechanisms that make collaboration between the different agencies of the National Statistical System that participate in the production of Environment Statistics more effective;
10. Creation of a basic harmonized format for the collection of environmental data;
11. Preparation of statistical compendium for the environmental sector; and build capacities in environment statistics.

## Environmental Statistics in Estonia, past efforts and future perspectives

**(Contributed by Kaia Oras, Statistics Estonia)**

Environmental statisticians in Statistics Estonia operate in the worldwide information space keeping in mind both national and international development in design of statistics. Developments which take place in the environmental sphere and statistics worldwide also affect the production portfolio of Statistics Estonia. Environment statistics is one of the four main fields of statistics according to the Act of Official Statistics. As environment and sustainable development statistics measure relatively new aspects, developments and values in the society, like reducing the impact of anthropogenic pressure on the environment and environmental aspects of sustainable development, the image of environment statistics has changed quite a lot in recent decades.

Statistics Estonia, in co-operation with the Ministry of the Environment and other players, has established the production of environmental information and statistics in Estonia. Now, 25 years after the creation of environment statistics in the newly established and independent Estonian state (and Statistics Estonia), we have the mutually beneficial collaboration of official and administrative environmental statisticians. Statistics Estonia operates under the multiyear programme, which comprises among other things, environmental statistics and environmental accounts. Altogether around 15 statistical products are produced regularly: waste statistics, environment-related monetary flows, environment sector statistics, material flows statistics, forestry and water statistics to name some of them.

Statistics Estonia has a dedicated section on their website for environment statistics which contains the links to the database and publications.

(Continued on page 22)

(Continued from page 21)

For the purposes of environmental and economic modelling and assessment it has been planned to create a number of environmental satellite accounts that would link environmental statistics to the information available in national accounts. In the recent decades six of these accounts were compiled in Estonia. Most of these accounts ask for environment statistics that are of good quality and are well-organized in order to allow the building of reliable tools for assessments. Environmental statisticians have been the main compilers of environmental accounts in Estonia, however this is done in close cooperation with national accountants and other competent players in the field (mainly other statistical organizations, university experts).

In co-operation with the Government Office and the Ministerial working group on sustainable development, Statistics Estonia has been actively contributing to development work and has started publishing sustainable development indicators since the Johannesburg Summit in 2002. The environmental component of the indicators of the sustainable development of Estonia and now also of the indicators relevant for UN SDGs (UN Sustainable Development Goals) have been developed and produced. UN SDG indicators for Estonia will be published at the end of 2018 on the Statistics Estonia website.

There are also efforts mainly with the aim of enhancing the use of environment statistics in environmental decision making and raising public awareness taken in the past: the development of the indicator set for the measurement of the effectiveness of environmental strategy, publishing of the environmental pressure indicators, carrying out of the statistical inventory of landfills and waste treatment sites.

As environment statistics is a developing field, the methodological work has been continuously going on both at the international and national levels in various spheres. It has been important to improve indirect assessment methods in order to reduce the burden on respondents. Thus, the methodology has been worked out for the indirect assessment of waste generation in various sectors, use of water and discharge of wastewater etc.

In the 1990s environmental statistics was developed based on UN guidelines, namely 1984 UN Framework for the Development of Environment Statistics (FDES). Later, in connection with Estonia's accession to the European Union and to the OECD, the statistical standards of these organizations were incorporated where relevant. During the last ten years Statistics Estonia is already actively contributing to the development of conceptual statistical frameworks regarding the environment, relevant areas of environment-health, globalization, enhancing statistical literacy and the revision of the UN FDES.

Enhancing the communication and statistical literacy of the fast growing field of environment and sustainable development statistics have been considered a priority as well. To meet this end, the main activities have focused on delivering presentations, designing tools and writing thematic articles. The presence of social media sites such as Facebook and Twitter, as well as its statistics blog, is of growing importance but has been used yet moderately for the popularizing of environment statistics due to human resource constraints.

UN SEEA (System of Environmental-Economic Accounting) standards and UN SDG indicators have now created additional demands for high quality environmental statistics and have also provided a wider contextual framework for the development of statistics for environment. The work in this direction has started as well and focuses very much on the cooperation between the producers and the users of statistics.

In everyday work the essential fields of activities refer to the improvement of basic data quality and the increase of the smooth production and the comprehensiveness of statistics. For the production of environment statistics, administrative data and data of the registers are used first hand. For certain areas Statistics Estonia still collects data directly from enterprises. Paper questionnaires to enterprises have been phased out and an electronic data transmission channel eSTAT has been opened for the collection of statistical data for a decade now.

This year Statistics Estonia has set a goal for 2022 to become the most innovative and efficient statistical organisation in Europe, providing user friendly and high quality statistics. The New strategy foresees the production of international and development plan indicators, visualization and offering of important information in as personalised format as possible, through governance dashboards and development of statistical literacy, thereby contributing to making knowledge-based decisions. Furthermore, the strategy aims at the implementation of state data governance, reduction of administrative burden, creation of the network for using open data (twice used principle), establishment of real-time data mining for quick and relevant decision-making, and offering of data visualisation service to the representatives of public interest. How to achieve these goals also in the area of environment statistics is a task for the remaining strategy period. We

(Continued on page 23)

(Continued from page 22)
foresee at first the integration of geo-spatial, environmental and economic data as one of the cornerstones for the further development of environment statistics.

Statistics Estonia has provided technical advisory services also in environmental statistics and is looking forward to new cooperation projects.

## Kenya' experience in the implementation of the FDES 2013 and the ESSAT

**(Contributed by James T. Gatungu, Director, Production Statistics, Kenya National Bureau of Statistics)**

### Introduction

The Framework for the Development of Environment Statistics (FDES 2013) was introduced in Kenya by the United Nations Statistics Division (UNSD) in 2015 as part of the UN Development Account Project Module A on strengthening environment statistics in the East African Community (EAC) Secretariat and its five member states.

Under Module A, Kenya participated in the series of regional and national workshops supported by UNSD on strengthening compilation of environment statistics, application of FDES 2013, use of the Environment Statistics Self-Assessment Tool (ESSAT), environmentally-related SDG indicators and climate change statistics. Kenya also contributed to the first EAC Regional Compendium of Environment Statistics.[18]

### Major Activities Undertaken

- Establishment of the Environment Statistics Technical Committee (ESTeC) on Environment Statistics
- Application of the ESSAT and the FDES 2013 to conduct a data gaps assessment
- Mapping of the environmentally-related SDG indicators with FDES 2013
- Finalized the following reports:
  - National Action Plan (NAP) on Environment Statistics, 2017.
  - List of priority Environment Statistics.
  - Comparison of environment data between international and national data sources.
  - Data compilation methodologies for international data sources and their applicability to national data sources in the country.
- Preparation of the Environment Statistics publication, 2018 which is the first comprehensive report scheduled for publication by end of September 2018.

### Lessons Learnt from the FDES 2013 and ESSAT

During the implementation the Kenya National Bureau of Statistics (KNBS) found that FDES 2013 is easy to follow and use:

- It structures environment statistics into Components, Subcomponents, Topics and Statistics.
- FDES 2013 also sets the scope of coverage of environment statistics.
- It comprises the Basic Set which includes everything possible, and the Core Set which is the bare minimum that a country can compile.
- The Framework provides the necessary guidelines on type of data to be collected, analysed and dissemination mechanisms.

### Activities and plans in the area of environment statistics, or related activities

As a way forward, the KNBS remains committed to enhancing environment statistics in the country through the following initiatives:

- Data collection from sources already identified and strategies to fill data gaps as a priority for the National Statistical System.

[18] https://unstats.un.org/unsd/envstats/meetings/2017-EAC/EAC_Compendium.pdf

(Continued on page 24)

(Continued from page 23)

- Harmonization of environment statistics in the country based on FDES 2013.
- The Bureau is coordinating the implementation the National Action Plan (NAP).
- The Framework is expected to be an input into the future development of national environmental indicators and statistics and monitoring of the SDGs.
- Design data and metadata collection questionnaires for available statistics.
- Environment Statistics Report covering Climate, Land, Population, Water, Wildlife and Forestry.

## The Mexican National Statistics and Geographic Information System and its role in the environmental indicators definition

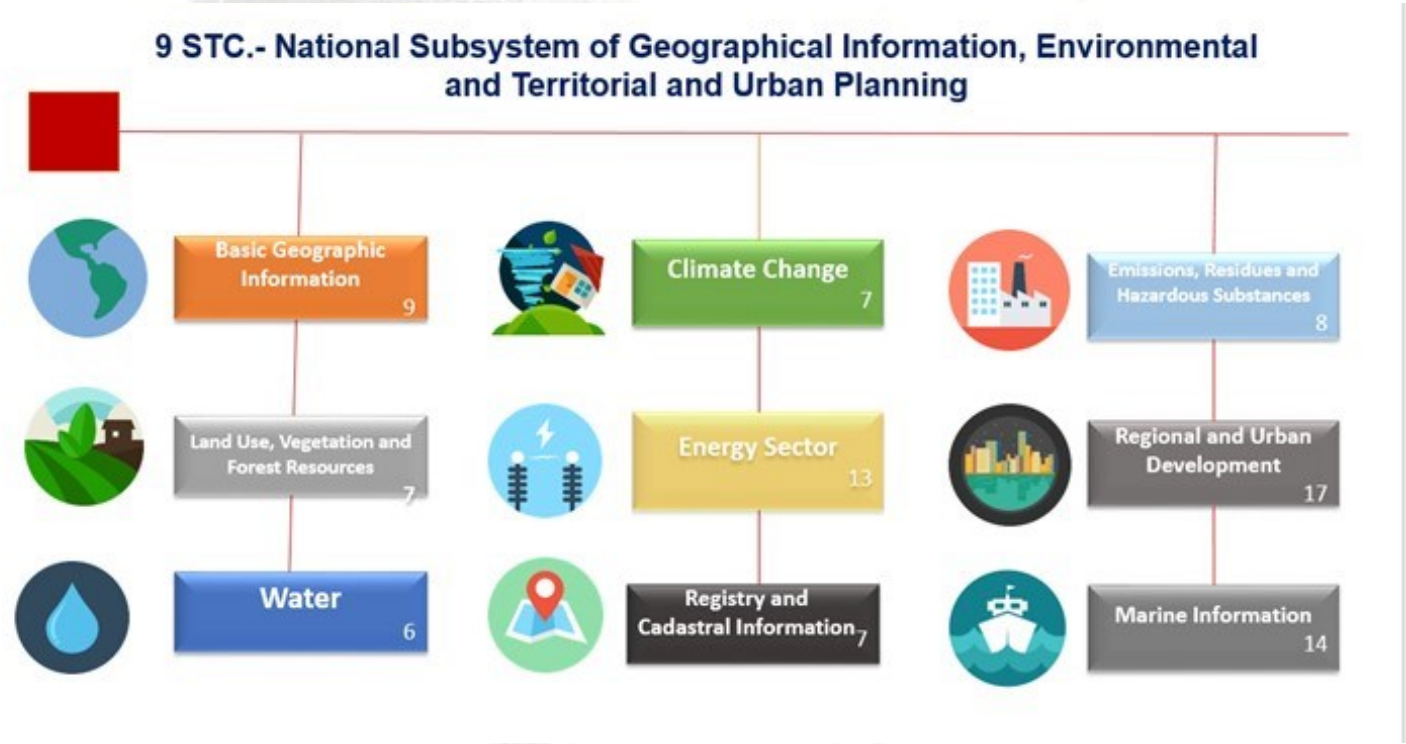
**(Contributed by Mr. Francisco Javier Jimenez Nava, Deputy General Director, Natural Resources and Environment, National Institute of Statistics and Geography (INEGI))**

In 2006, the Mexican Constitution was modified to prescribe that the Nation should have a National Statistics and Geographic Information System (NSGIS or SNIEG in Spanish). The responsibility to norm and to coordinate that system was assigned to the National Institute of Statistics and Geography, INEGI. The Institute has technical and administrative autonomy, with legal personality and assets. To consolidate that mandate, the National Statistics and Geographic Information System Law was enacted in 2008.

The National Statistics and Geographic Information System is formed by a set of units, mainly government agencies organized in four Information Subsystems; so that each subsystem produces Technical Rules and Standards, National Interest Information and indicators in their thematic scope and competence.

In each Subsystem there are collegiate bodies, named as Specialized Technical Committees where representatives from related federal agencies and from the INEGI, grouped by specific themes, participate, discuss and agree on their respective information themes. Particularly, the National Geographic, Environmental and Territorial Ordering Subsystem has nine Technical Committees.

FIGURE




(Continued on page 25)

(Continued from page 24)

The purpose of the committees is to prepare and revise technical standards, methodologies and indicators, required for the integration of the National Statistics and Geographic Information System. For this subsystem, particularly for the environmental information production these committees play a fundamental role in the development of Basic Environmental Statistics and the generation of Environmental Indicators.

The data collection methods, validation, consistency and publications of the environmental statistics series are analyzed and assessed, taking in account also recommendations from International Frameworks and Initiatives.

It is through this Information Infrastructure and organization that Mexico advances in the fulfillment of its international commitments, as the 2030 Agenda on Sustainable Development, the Paris Agreement and the Sendai Framework.

## Workshop on Gender and Environment Statistics in Mexico

**(Contributed by Paloma Merodio Gómez - Vice President of INEGI and Jesarela López Aguilar - Director of Analysis and Management of the Geographical Information and Environment Subsystem, INEGI)**

The National Institute of Statistics and Geography (INEGI), the national statistical office of Mexico, generates basic statistics, which are obtained from three main sources: censuses, surveys and administrative registers; through which it produces demographic, social, economic and environmental indicators, in addition to national accounts.

The Institute has a strong data capacity and has integrated gender-related statistical information, as demonstrated by the production of a National Gender Atlas[19], which aims to provide users with access to information on the conditions of women and men in economic, demographic and social realms. Nevertheless, the link between gender and the environment remains limited; and environmental statistics with a gender perspective are scarce.

Therefore, the "National Statistics Workshop on Gender and the Environment" took place from 23 to 24 April 2018 in Mexico City, organized by the International Union for Conservation of Nature (IUCN), the United Nations Environment Programme (UN Environment) and INEGI, and was attended by 50 participants representing 19 government institutions, international organizations and the academic sector.

This workshop aims to contribute to the creation of capacities and knowledge sharing within the framework of the Sustainable Development Goals (SDGs), and to strengthen knowledge on the linkage among the environment, gender equality and the empowerment of women; activities that will contribute to the production of statistics and indicators, considering data to be official, transparent and accessible, in order to improve the public policies that respond to the needs on this subject.

In order to identify indicators, sources and best practices to measure the interaction between gender and environment, working groups were organized to analyze four priority areas: A) Right to land, natural resources and biodiversity; B) Access to food, energy, water and sanitation; C) Climate change, sustainable consumption and production, and health and well-being; and D) Women in environmental decision-making. Together these four priority areas relate to 14 of the 17 SDGs.

Initially, 17 indicators were proposed for the priority areas, which were discussed in the working groups and plenary sessions with specialists, where the topics, availability of information, sources and mechanisms for their construction, were analyzed.

The main results of the workshop were:

- 40 additional indicators were proposed to those originally identified, based on the discussions from the expert working groups.
- Creation of an inter-institutional Working Group to undertake an initial review of the construction and calculation of indicators proposed in the final list (57).
- Identification of the data and statistics that should be generated for gender and environment statistics for Mexico.

With the above, it is expected to have more and better data so that actions can be implemented to reduce existing data

[19] The National Gender Atlas is available at: http://gaia.inegi.org.mx/atlas_genero/ https://unstats.un.org/unsd/envstats/meetings/2017-EAC/EAC_Compendium.pdf

(Continued on page 26)

(Continued from page 25)

gaps. The workshop results will also be used by IUCN to document good practices for developing indicators, as well as for the collection of information and statistics at the national level in Mexico.

INEGI is committed to generating information for SDGs as well as to including the gender perspective in the statistics that are produced.

## The Philippines holds Regional Training on the United Nations Framework for the Development of Environment Statistics (FDES 2013) to support the compilation of the environment statistics at the local levels

**(Contributed by Vivian Ilarina, Assistant National Statistician, Macroeconomic Accounts Service, Philippine Statistics Authority)**

In the Philippines, the Philippine Statistics Authority (PSA) serves as the highest policy-making body on statistics and the central statistical authority of the government on primary data collection. The PSA acts as the coordinator of the country's Philippine Statistical System (PSS) to ensure that demands of stakeholders are met, particularly, the emerging needs of users.

The PSA was established on 12 September 2013 pursuant to Republic Act 10625 also known as the Philippine Statistical Act of 2013. This law merged as PSA the four (4) separate and distinct statistical agencies of the National Statistics Office (NSO), the National Statistical Coordination Board (NSCB), the Bureau of Agricultural Statistics (BAS) and the Bureau of Labor and Employment Statistics (BLES).

As early as 2000, and after the merger of 4 major statistical agencies in 2013, the Philippines through the PSA has continually established a strong momentum for the development of environmental statistics following the United Nations Framework for the Development of Environment Statistics (UNFDES), the latest of which is the 2013 UNFDES.

For the first semester of 2018, the first training was conducted for the Cordillera Administrative Region (CAR) on 6 to 8 February 2018 in Baguio City, while the second one was for the Autonomous Region in Muslim Mindanao (ARMM) on 24 to 26 April 2018 in Cotabato City.

The trainings were primarily conducted to introduce the FDES 2013 as a tool for organizing environment statistics, focusing on the Core Set of Environment Statistics, which defines the scope of relevant, measurable and methodologically sound environment statistics. Being a country rich in natural resources, the Philippines faces a great challenge of formulating environmental plans and policies for the country. Furthermore, each region of the country has environmental conditions and natural resources unique to them. Thus, the need to compile environmental statistics at the sub-national levels cannot be emphasized more.

In attendance are participants from the respective Regional Statistical Services Office (RSSO) of PSA, along with the representatives from the local offices of the Department of Environment and Natural Resources (DENR) and its line bureaus, the Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA), the Provincial and City Planning and Development Offices (PPDO and CPDO), and other data source agencies.

The lectures were presented by a team of personnel from the PSA Central Office, led by the Assistant National Statistician (ANS) Vivian R. Ilarina of the Macroeconomic Accounts Service. ANS Ilarina began the training-proper with a presentation on the endeavours of the PSA in compiling environment statistics in the past years, capping off with a Strengths, Weakness, Opportunities and Threats (SWOT) Analysis on the subject of compiling environment statistics in the regional level, as a group exercise. Following are the introduction to the Core Set of Environment Statistics and lectures on each of the six components of environment statistics, presented by staff from the Environment and Natural Resources Accounts Division (ENRAD). The discussion of the components included the linkages between the Core Set and the Sustainable Development Goals. Experiences in compiling the Core Set in the national Compendium of Philippine Environment Statistics (CPES) were also shared. To deepen the appreciation of the participants for environment statistics, exercises on its uses were also conducted.

(Continued on page 27)

(Continued from page 26)
Since 2015, the PSA has conducted the Training on the UN FDES 2013 covering other regions namely: Davao, MIMAROPA, Bicol, Eastern Visayas, Caraga, Central Visayas, and Cagayan Valley.

## A Focus on Tanzania's Flagship National Environmental Statistics Report (NESR), 2017

**(Contributed by Ruth Minja, National Bureau of Statistics, Tanzania)**

**Efforts in Development of Environment Statistics in Tanzania**

The collaborative efforts between the United Nations Statistics Division (UNSD) and the National Bureau of Statistics (NBS) have had important contribution to the development of environment statistics in Tanzania. Out of these collaborations, Tanzania has been able to produce its first ever national report on environmental statistics - National Environment Statistics Report (NESR), 2017 which complies with the recommended UN standards.

The use of the Environment Statistics Self-Assessment Tool (ESSAT) and the Framework for Development of Environment Statistics (FDES) has helped to enhance analytical capacities for environment statistics within the National Statistics System (NSS). Moreover, the use of the FDES has also facilitated production of comparable environment statistics, which are vital for planning and monitoring of the national, regional and international development frameworks such as the National Five Year Development Plan II (2016/17 – 2020/2021), the East African Community Vision 2050 and the Sustainable Development Goals, 2030.

**The need for Environment Statistics in Tanzania**

In the quest to boost economic and social development for her people, Tanzania is implementing several national development frameworks. For instance, the Tanzania Development Vision 2025 (TDV 2025) seeks to transform the economy into a middle income and semi industrialized State by 2025. This Vision is implemented though a series of National Five Year Development Plans (NFYDPs), with each of the plans focusing on specific economic theme. The current NFYDP theme is nurturing industrialization for economic transformation and human development.

Tanzania also plays an active role in the international community. By this virtue, the country is an implementing partner of a number of regional and international development frameworks such as the Africa Development Agenda, 2063 and the UN Sustainable Development Goals, 2030. The country has also ratified several Multilateral Environmental Agreements (MEAs) such as the United Nations Convention to Combat Desertification (1994), the United Nations Framework Convention on Climate Change (UNFCCC) (1992) and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1989).

Implementation of these development frameworks and the recognition that human well-being and sustainable development depend on the environment, has led to a growing list of environmental issues on which decisions must be taken. For these reasons, environment statistics has become an indispensable tool for monitoring the county's environmental management progress vis a vis the sought targets for sustainable development.

**National Environmental Statistics Report (NESR), 2017**

Presentation of environment statistics in the NESR follows the structure proposed by the FDES. The NESR is outlined in six main chapters akin to FDES components. These chapters are Environmental conditions and quality; Environmental resources and their use; Residuals; Extreme events and disasters; Human settlements and environmental health; and Environmental protection, management and engagement. However, minor deviations in presentation between NESR and FDES can be observed at sub-component and topic levels, with NESR covering less than the FDES. This is mainly a result of absence of data in the particular sub-component or topic. Moreover, in certain instances, NESR presents more statistics than what is proposed by the FDES. This is meant to provide data for specific national needs.

(Continued on page 28)

(Continued from page 27)

With regard to the nature of environment statistics presented in the NESR, they largely fall under Tier one, the Core Set of Environment Statistics of the FDES, which all countries, at any stage of development, are recommended to consider collecting. NESR does not feature environment statistics classified under Tier two and three of the FDES, due to the overall methodological complexities for measuring these statistics. Most importantly however, the statistics in Tier one are more relevant with national environmental protection and sustainability initiatives. Environment statistics in Tier one provides the basic data for measuring progress in addressing the country's six important environmental concerns as detailed in the National Environmental Policy, 1997 (NEP,1997). The NEP outlines land degradation; lack of accessible, good quality water for both urban and rural inhabitants; environmental pollution; loss of wildlife habitats and biodiversity; deterioration of aquatic systems; and deforestation as urgent environmental problems in Tanzania. However, the NEP, 1997 is currently under review to incorporate other emerging environmental issues such as climate change and electronic waste. In addition, the NESR provides baseline data for monitoring most of the environmentally-related SDGs indicators.

**Environmental Statistics – Key Facts from NESR, 2017**

- The monthly mean maximum temperatures are showing a rising trend with an average of 30.0°C for the period from 2012 to 2016 compared to 29.4°C for the long-term period from 1981-2010, both observed in October.
- For the period of five years (2012-2016) monthly mean rainfall decreased by 4.5 mm which is about 5 % as compared to the long term mean (1981-2010). This gives an indication that monthly rainfalls are declining in most parts of the country.
- The largest basin in Tanzania is Rufiji (182,708 $Km^2$), it is about 20% of Tanzania Surface Area.
- Tanzania shares more international water resources (6 lakes, 5 rivers and 7 aquifers), than any other country in Africa.
- Terrestrial ecosystems which relates to forest ecosystems occupy 55 % of the total land area of which agricultural ecosystems occupies 45 % of terrestrial ecosystems.
- Out of 57,424 $Km^2$ covered by national parks in Tanzania, Ruaha is the largest national park with an area of 20,300 $Km^2$ (35.4 %) of total area of national parks.
- Forest resources cover 48.1 million hectares (ha) equivalent to 55 % of the total surface land area of Tanzania Mainland. Woodlands cover 44.6 million ha (93 %) of the forestland, while catchment forests, mangroves, coastal forests and government forest plantations occupy 3.4 million ha (7 %).
- Deforestation rate is estimated at 372,000 ha per annum between 1995 and 2010.
- The national energy balance in Tanzania is dominated by biomass which accounts for 85 %, other sources include petroleum (9 %), electricity (5 %) and renewable energies (1 %).
- The market for Ozone Depleting Substances (ODS) alternatives in Tanzania is exclusively dominated by imports which amounted to about 290.78 MT in 2012 as compared to 723.08 MT in 2015.
- By 2016, only 10 towns/cities had sewerage systems which covered only 20 % of total urban population.
- About 16.3 million $M^3$ (20 %) of wastewater generated in Dar es Salaam City was collected and treated from 2013 to 2017.
- The largest number of recycling industries is in the category of plastic or nylon with 24 establishments (72.1 %) of all recycling industries and the smallest number was in the market and vegetable waste category (3.0 %).
- In Tanzania, about 6 out of 10 persons (59.7 %) have access to improved sources of drinking water.

**Planning for Updating the NESRs**

The periodicity for updating the NESR publication is two years. However, in order to address the high demand for environment data, NBS in collaboration with the National Technical Working Group (NTWG) on Environment Statistics is planning to produce Environment Statistics Booklets in between the years of production of the NESR to facilitate evidence-based decisions. The envisaged booklets will feature frequently produced environmental statistics, such as meteorological data on climate and weather; and waste generation and waste management. This initiative is intended to build awareness among the citizenry of the interaction between human life and the environment, for the purpose of

(Continued on page 29)

(Continued from page 28)
encouraging sustainable consumption of environmental resources, and also heeding environmental problems such as global warming and climate change.

**Challenges Encountered in Compiling the NESR**

The NESR has been produced by the collaborative efforts of the National Technical Working Group (NTWG) on Environment Statistics and the NBS, with the latter assuming the coordination role. This implies statistics are to be synthesized from administrative records of various Ministries, Departments and Agencies (MDAs) responsible for specific environmental aspects. This multifaceted working arrangement is also likely to bring about challenges, mainly as a result of differences in levels of statistical development within the MDAs. The important challenges which were encountered during compilation of NESR include:-

- Data Quality and Completeness
  Data quality and completeness are the major challenges impinging production of environmental statistics in Tanzania. Data quality is attributed to age of available environmental data sets, inadequacy in methods of data collection, analysis and interpretation. Most of the data sets are quite old as data collection is mostly at the discretion of the institutions collecting the data. Data are also available in patches and therefore lacking continuity over a longer time span. Another important hindrance was resolution of the data, particularly for spatial data. In most cases, the scales of spatial environmental data do not permit proper analyses and conclusions of environmental impacts to be made over smaller geographical or administrative areas.
- Gaps in Data Collection by MDAs
  The interdisciplinary nature of environmental statistics implies decisions to collect, compile, analyze and disseminate environmental data are made at the discretion of MDAs. Since the MDAs are charged with other core roles of administration and service provision to the public, resources allocated to data collection for environmental statistics in many MDAs are not adequate. This makes it difficult for data to be up-to-date and complete.
- Lack of Data Management Information Systems by MDAs
  The compilation and dissemination of environment statistics has not being performing as expected due to lack of a clear data management information system in MDAs. This has resulted into incomparable and unreliable environment statistics in MDAs.

**Conclusion**

In conclusion, Tanzania is currently showing good economic development but also in danger of declined quality and quantity of her environmental resources. In this regard, it is more important to bring about greater awareness of interrelatedness of development and the environment. NBS as an institution responsible for production of official statistics within the NSS is ready to champion this agenda by producing environment statistics to facilitate evidence-based decisions during the implementation of national and international aspirations for sustainable development. This can only be achieved by considering, among others: harnessing data revolution with regard to leveraging on the advancement in technology and networking among MDAs to optimize production and usage of administrative data; ensuring continuous improvement in data quality and reduce data collection time, processing and dissemination; enhancing information delivery systems through the availability of time series data that can be accessed interactively; and having sustainable means of financing activities of data collection at the MDAs.

**How to Access the NESR, 2017**

The NESR is available in both softcopy and hard copy. The softcopy can be accessed at the NBS website at www.nbs.go.tz and at the UNSD website at https://unstats.un.org/unsd/envstats/fdescompendia.cshtml

(Continued on page 30)

(Continued from page 29)

**For Official Communication Please Contact:**

Director General
National Bureau of Statistics
18 Kivukoni Road
P.O. Box 796
11992 Dar es Salaam, TANZANIA
Tel: +255 (0) 22-2122722/3
Fax: +225 (0) 22-2130852
E-mail: dg@nbs.go.tz
Website: www.nbs.go.tz

## Uganda's experience in the application of the FDES 2013 and the ESSAT

**(Contributed by Emmanuel Menyha, Agricultural and Environment Statistics, Uganda Bureau of Statistics)**

### Introduction

The history of collection of statistics in Uganda dates back in the colonial days. This has been through censuses, surveys and administrative systems. All these efforts have greatly contributed to the effective monitoring of policies, programs and planning in the country.

Due to the need for effective production and supervision of the National Statistics System in Uganda, the Uganda Bureau of Statistics (UBOS) was formed by the ACT of Parliament, 1998 and mandated to develop and maintain the National Statistical System (NSS). It is charged with the responsibility for coordinating, monitoring and supervising the NSS. The NSS includes all agencies in Uganda, whether government or not; under any enactment or otherwise; responsible for gathering statistical data through either surveys or administrative action (Statistics Act, 1998).

Given the importance of environment statistics to the development frameworks like the MDGs, NDPI-Uganda, the Uganda Bureau of Statistics created a Directorate of Agriculture and Environment statistics (DAES) in 2011. Its mandate is to coordinate the monitoring and supervision of environment statistics production since this sector statistics is generated, collected and stored by different Government Ministries, Departments and Agencies (MDAs) during their delivery of services to the population.

Being a crosscutting sector, environment statistics has not been getting an independent arm in the collection of the statistics. The different statistics of environment have been collected in data collection operations including but not limited to; hydrological surveys, wetlands studies, biomass studies, meteorological data collection activities, agriculture and household surveys.

### FDES 2013/ESSAT in context of Environment Statistics in Uganda

Environment statistics is a relatively young branch of official statistics. It was therefore quite difficult to delineate or limit its scope. Uganda like many other developing is limited in its organizational, technical and financial capacity and is challenged by a lack of cooperation and by data-gaps.

Therefore, the development of environment statistics required a proper framework, and the Environment Statistics Self-Assessment Tool (ESSAT) and the Framework for the Development of Environment Statistics (FDES 2013) (especially the Core Set) rekindled a new thinking in the compilation of this environment statistics in Uganda. The FDES structure is guiding us in the collection and compilation of environment statistics, and brings together data from various relevant areas and sources. It is broad and holistic in nature, covering the issues and aspects of the environment that are relevant for policy analysis and decision making in Uganda.

The Core Set of Environment Statistics of the FDES is guiding us on the limited set of environment statistics that are of high priority and relevance to our nation. This Core Set is actually the first level ("Tier 1") of a greater Basic Set of Environment Statistics, composed of three levels, according to the relevance, availability and methodological development of these statistics.

With support from the United Nations Statistics Division (UNSD-Environment Statistics Section), a consultant on environment statistics was recruited and a number of achievements so far made include but not limited to;

a) Draft Action Plan for Development of Environment Statistics in Uganda

(Continued on page 31)

# COUNTRY NEWS

*(Continued from page 30)*

b) Environment statistics data sources report,
c) Environment statistics metadata report and,
d) Draft Compendium of Environment Statistics (to be out very soon)

In line with the above development, there are two planned meetings this year i.e.

a) The first one around September 2018
b) The second one around November/December 2018

# FORTHCOMING EVENTS

UNSD/ESCWA Workshop on Environment Statistics (Beirut, Lebanon, 12-16 November 2018)

***envstats*** is produced by the Environment Statistics Section of the United Nations Statistics Division (UNSD). The views expressed here do not necessarily reflect those of the United Nations.

Comments and contributions for inclusion in future issues should be sent to:

ENVSTATS

DC2-1416

2 United Nations Plaza, New York, New York 10017

Fax: 1 (212) 963-0623

E-mail: envstats@un.org