



# envstats

## News and Notes

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

### FOCUS:

## Outcomes of COP24 and the implications on statistics/reporting

(Contributed by Vlad Trusca, United Nations Framework Convention on Climate Change (UNFCCC))

### IN THIS ISSUE

#### Focus

#### UNSD News

#### Regional News

#### Country News

#### Forthcoming Events

The 24th Conference of the Parties to the UNFCCC (COP.24) including the first session of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA.1) was organized in Katowice, Poland in the period 2-15 December 2018 and opened with a strong message from the UN Secretary General to the world: “we are in deep trouble with climate change, as it is running faster than we are and we must catch up sooner rather than later before it is too late.”

As the Paris Agreement has already provided the framework for the necessary action, the main goal of the Parties’ discussions in Katowice was to adopt the Paris Agreement Work Programme to make the Paris Agreement fully operational and all its institutions and processes to work efficiently.

Following two weeks of intense technical consultations by experts and bilateral meetings by ministers and with the COP Presidency, Parties reached an agreement on a set of decisions grouped under the Paris Agreement Work Programme: <https://unfccc.int/katowice>.

Apart from the adoption of the Paris Agreement Work Programme containing rules governing the transparency framework, regular stocktakes on progress in mitigation, adaptation, financial flows, and addressing loss and damage, Parties also acknowledged the Intergovernmental Panel on Climate Change (IPCC)’s Special Report on Pathways to 1.5°C, concluded the Talanoa Dialogue (sharing stories and experiences to build trust and confidence and to encourage ambition) and mandated the Subsidiary Body for Scientific and Technological Advice (SBSTA) to continue negotiations on the implementation of Article 6 of the Paris Agreement (cooperative approaches).

The implications on the statistical world result mostly from the adoption of the modalities, procedures and guidelines (MPGs) for the transparency framework for action and support pursuant to Article 13 of the Paris Agreement.

According to the Paris Agreement, the purpose of the framework for transparency of action is to provide a clear understanding of climate change action in the light of the objective of the Convention including clarity and tracking of progress towards achieving Parties’ individual nationally determined contributions (NDCs), and Parties’ adaptation actions, including good practices, priorities, needs and gaps, to inform the global stocktake. Moreover, the purpose of the framework for transparency of support is

*(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](mailto:envstats@un.org)

Also available on <http://unstats/unsd/ENVIRONMENT/newsletters.htm>

*(Continued from page 1)*

to provide clarity on support provided and received by relevant Parties in the context of climate change actions, and to provide a full overview of aggregate financial support provided, to inform the global stocktake.

Decision from Katowice requests all Parties to submit their first biennial transparency report and national inventory report (if submitted as a stand-alone report) under the Paris Agreement at the latest by 31 December 2024, whereas the least developed country Parties and small island developing States may submit at their discretion. In addition, developing country Parties shall be provided support on a continuous basis for building the transparency-related capacity and the Global Environment Facility will support developing country Parties in preparing their first and subsequent biennial transparency reports.

The modalities, procedures and guidelines (annexed to the decision) contain the following sections:

1. Introduction;
2. National inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases;
3. Information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement;
4. Information related to climate change impacts and adaptation under Article 7 of the Paris Agreement;
5. Information on financial, technology development and transfer and capacity-building support provided and mobilized under Articles 9–11 of the Paris Agreement;
6. Information on financial, technology development and transfer and capacity-building support needed and received under Articles 9–11 of the Paris Agreement;
7. Technical expert review; and
8. Facilitative, multilateral consideration of progress.

Section 2 related to the national inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases is the most relevant for the statistical world. According to the provisions in this section, all Parties should implement and maintain national inventory arrangements, including institutional, legal and procedural arrangements for the continued estimation, compilation and timely reporting of national inventory reports in accordance with these MPGs. These arrangements can vary by Party depending on their national circumstances and preferences and change over time. In addition, each Party shall report on its:

1. national entity or national focal point with overall responsibility for the national inventory;
2. inventory preparation process, including division of specific responsibilities of institutions participating in the inventory preparation to ensure that sufficient activity data collection, choice and development of methods, emission factors and other parameters are in accordance with the IPCC guidelines.
3. archiving of all information for the reported time series, including all disaggregated emission factors and activity data, all documentation about generating and aggregating data, including quality assurance/quality control (QA/QC), review results and planned inventory improvements; and
4. processes for the official consideration and approval of the inventory.

In terms of methodologies, parameters and data, all Parties shall use the 2006 IPCC Guidelines, and any subsequent version or refinement of the IPCC guidelines agreed upon by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement. All Parties are also encouraged to use the 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands. Moreover, all Parties have to use methods from the IPCC guidelines and make every effort to use a recommended method (tier level) for key categories in accordance with those IPCC guidelines. However, all Parties may use nationally appropriate methodologies if they better reflect national circumstances and are consistent with the IPCC.

In order to ensure time-series consistency, all Parties should use the same methods and a consistent approach to underlying activity data and emission factors for each reported year. All Parties should also use surrogate data, extrapolation, interpolation and other methods consistent with splicing techniques contained in the IPCC guidelines referred to in paragraph 20 above to estimate missing emission values resulting from lack of activity data, emission factors or other parameters to ensure a consistent time series.

In addition, Parties shall quantitatively estimate and qualitatively discuss the uncertainty of the emission and removal estimates for all source and sink categories, including inventory totals, for at least the starting year and the latest reporting year of the inventory time series.

*(Continued on page 3)*



*(Continued from page 2)*

In terms of completeness, Parties should indicate the sources and sinks (categories, pools and gases) that are not considered in the national inventory report but for which estimation methods are included in the IPCC guidelines and explain the reasons for such exclusion. Moreover, Parties shall use notation keys where numerical data are not available when completing common reporting tables, indicating the reasons why emissions from sources and removals by sinks and associated data for specific sectors, categories and subcategories or gases are not reported.

Parties will have to report methods used, including the rationale for the choice of methods, in accordance with good practice elaborated in the IPCC guidelines and the descriptions, assumptions, references and sources of information used for the emission factors and activity data used to compile the GHG inventory.

All Parties will need to report seven gases (carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), (nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>)) but those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead report at least three gases (CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O) as well as any of the additional four gases (HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub>) that are included in the respective Party's NDC or have been previously reported.

Other sections in the modalities, procedures and guidelines for the transparency framework, require relevant information which will result from the cooperation between the national institution responsible for reporting to UNFCCC and the national statistical offices but the ones presented above are the most rigorous ones.

To conclude, as the UN Secretary General, António Guterres remarked at the conclusion of COP.24, “Katowice has shown once more the resilience of the Paris Agreement – our solid roadmap for climate action. The approval of the Paris Agreement Work Programme is the basis for a transformative process which will require strengthened ambition from the international community. Science has clearly shown that we need enhanced ambition to defeat climate change”.

Based on the decision of the 49<sup>th</sup> session of the Statistical Commission requesting UNSD and UNFCCC to strengthen the link between statistics and policy, and on the mandate of the Statistical Commission at its 47<sup>th</sup> session in 2016 for UNSD to develop a global set of climate change statistics and indicators, the adoption of the Paris Agreement Work Programme will contribute to provide more clarity on the data reporting requirements for Parties under the Paris Agreement and to the development of the global set, as well as build more bridges between the national statistical offices and national climate change reporting authorities.

## UNSD NEWS:

### 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 47<sup>th</sup> session in 2016<sup>1</sup> 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 49<sup>th</sup> session in 2018<sup>2</sup> 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.

At the fifth Meeting of the Expert Group on Environment Statistics (EGES) (New York, 16-18 May 2018), Session Three covered methodological work on climate change statistics and its future development. Several presentations were

<sup>1</sup> <https://unstats.un.org/unsd/statcom/47th-session/documents/Report-on-the-47th-session-of-the-statistical-commission-E.pdf>

<sup>2</sup> <https://unstats.un.org/unsd/statcom/49th-session/documents/Report-on-the-49th-session-E.pdf>

*(Continued on page 4)*

(Continued from page 3)

made on the topic and rich discussions were held on the underlying Framework for Climate Change Statistics and Indicators, the UNSD Pilot Survey on Climate Change Statistics and Indicators, the Global Set of Climate Change Statistics and Indicators, Role of National Statistical Offices (NSOs), and the Global Consultation on Climate Change Statistics and Indicators. More details can be found in the meeting report available at <https://unstats.un.org/unsd/environment/FDES/EGES5/Final%20Report.pdf>.

In order to globalize climate change statistics and indicators, UNSD:

- i) has reviewed the UNECE and the IPCC/FDES frameworks and identified links to the Paris Agreement.
- ii) is reviewing the UNECE list of indicators and consulting other lists (international organizations (UNFCCC, WMO, FAO), regional institutions (UNECE, ESCWA, ECLAC, OECD), research (IPCC) national agencies (US EPA, New Zealand EPA), national reports (National Adaptation Plans, National Communications) and NGOs (Climate Reality, World Resources Institute) with a view to developing a suitable list prior to the Global Consultation.
- iii) is developing a work plan based on the list of planned activities contained in the Secretary General's Report to the 49<sup>th</sup> session of the Statistical Commission.
- iv) is planning to develop an inventory of related work on climate change statistics by partner organizations.
- v) is planning to conduct the Global Consultation in 2019/2020.
- vi) is engaging closely with UNFCCC to develop the global set of climate change statistics and indicators to strengthen the link between statistics and policy by:
  - Joint report to the 49th session of the Statistical Commission (with UNECE);
  - Joint Side Event at the 49th session of the Statistical Commission (with UNECE/FAO);
  - UNFCCC participation in the Expert Group on Environment Statistics;
  - UNSD participation in the Workshop on national adaptation goals/indicators and their relationship with the SDGs and the Sendai Framework for Disaster Risk Reduction in Tokyo in July 2018; and
  - UNFCCC participation in a workshop on environment statistics (which includes climate change statistics) for the Arab region organized by UNSD in collaboration with UNESCWA, UNEP and EEA (Beirut, 12-16 November 2018).
- vii) is ensuring linkage of the work on the global set of indicators to:
  - the Adaptation Programme of UNFCCC (Article 7 - Paris Agreement);
  - the Global Stocktake of the Paris Agreement (Article 14); and
  - the Transparency Framework of the Paris Agreement (Article 13).

As of December 2018, UNSD has compiled a list of climate change indicators with over 6500 indicators organized according to the areas of the IPCC framework (Drivers, Impacts, Mitigation, Adaptation, and Vulnerability). Many of the indicators are repeated across different countries and organizations. Indicators come from documents which published by national bodies, such as the Ministry of Environment or National Statistical Offices, which contain country-relevant information, at least one national source has been taken from more than 100 countries. In addition, international and regional sources such as SDG indicators, FDES, IPCC reports and ECE have been considered to identify other key indicators. The work on the compilation of indicators is ongoing to include information from more countries and organizations.

UNSD is identifying a list of the most commonly repeated indicators according to the five areas of the IPCC framework thereby promoting a bottom-up approach to the selection of indicators and will continue this compilation of indicators from more countries and organizations. UNSD will work with other partners, including UNFCCC, and the Expert Group on Environment Statistics to determine the most suitable time to send out a list of indicators for the Global Consultation. Given the adoption of the Paris Agreement Work Programme at the recent COP24 (see FOCUS article). UNSD looks forward to working more closely with UNFCCC to identify more clearly the data reporting requirements for Parties under the Paris Agreement and how these will contribute to the global set of climate change statistics and indicators.

## Disaster-related statistics will be featured at the 50th session of the UN Statistical Commission

The UN Statistical Commission, at its 49th Session in 2018, decided to include the topic of disaster-related statistics as a new separate item on the agenda for the 50<sup>th</sup> session of the Commission in 2019. The 50<sup>th</sup> session of the Commission will therefore have before it the report of the Secretary-General on disaster-related statistics.

(Continued on page 5)



(Continued from page 4)

The report was prepared by UNSD in collaboration with the Economic and Social Commission for Asia and the Pacific (ESCAP), the Economic Commission for Europe (ECE) and the United Nations Office for Disaster Risk Reduction (UNISDR). As requested by the Commission at its 49<sup>th</sup> session, the report contains a discussion of disaster-related statistics and highlights the growing relevance and greater focus of disaster-related statistics, given the importance of the Sendai Framework for Disaster Risk Reduction 2015–2030. The report discusses an increased focus on disaster-related statistics and illustrates the need to develop a common position on this important and emerging field of statistics. It elaborates on the growing data demands and needs for disaster-related statistics and takes stock of the current situation of activities around the world, with emphasis on the constraints developing countries face. The report summarizes the work of the main international and regional organizations active in disaster-related statistics, and demonstrates that there is already considerable complementarity, coordination and cooperation taking place on this topic under the purview of the Commission. In this regard, ways to continue to build and strengthen a common statistical framework and a community of practice for disaster-related statistics among the multiple disciplines and areas of expertise involved, are also explored in the report. The Commission will be invited to express its views on the report and discuss the way forward.

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

Work on the methodology sheets of the Manual on the Basic Set of Environment Statistics is progressing well thanks to the work of the authors and contributors. Of the 60 topics of the FDES 2013 more than half have been covered by methodology sheets published or in progress.

- The Manual on the Basic Set of Environment Statistics has published the following methodology sheets available at: [https://unstats.un.org/unsd/envstats/fdes/manual\\_bses.cshtml](https://unstats.un.org/unsd/envstats/fdes/manual_bses.cshtml):
- Soils covering Sub-component 1.1: Topic 1.1.4: Soil characteristics.
- Ecosystems and Biodiversity covering Sub-component 1.2: Topic 1.2.2: Ecosystems and biodiversity.
- 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.
- 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.
- Air Quality covering Sub-component 1.3: Topic 1.3.1: Air Quality.
- 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.
- Waste covering Sub-component 3.3: Topic 3.3.1: Generation of Waste, and Topic 3.3.2: Management of Waste.
- 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:

- 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.
- 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.

## 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 26 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](mailto:envstats@un.org)) where they may then be made available on UNSD's website.

## UNSD/United Nations Environment Programme Data Collection 2018

The UNSD/United Nations Environment Programme Questionnaire 2018 on Environment Statistics was sent out on 17 September 2018 to approximately 170 countries and territories, excluding OECD and European Union members (for which comparable data are collected as part of the OECD/Eurostat Joint Questionnaire on the State of the Environment). The Questionnaire (<https://unstats.un.org/unsd/envstats/questionnaire.cshtml>) was sent to both National Statistical Offices and Ministries of Environment and asked for coordination within the country. It covers the areas of water and waste as in the case of the Questionnaire 2016. The data will primarily be used for:

- compiling those Sustainable Development Goal (SDG) indicators that pertain to Goal 6 (Ensure availability and sustainable management of water and sanitation for all), Goal 11 (Make cities and human settlements inclusive, safe, resilient and sustainable) and Goal 12 (Ensure sustainable consumption and production patterns);
- UNSD's Environment Statistics Database and for dissemination on UNSD's website as Environmental Indicators and Country Snapshots; and
- United Nations Environment Programme's Global Environmental Outlook (GEO) series and the Environment Live Global Database

In an effort to meet policy demand and to maintain relevance, some substantive changes were implemented for this ninth data collection round. In the waste section of the questionnaire, a table called Electronic Waste (e-waste) Generation and Collection was added. This table includes two variables: total e-waste generated and total e-waste collected. Elsewhere in the Questionnaire for this collection round, the variable, "municipal solid waste generated" at both the national and city levels has been added.

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 were made. Three of the tables in the questionnaire (Freshwater Abstraction and Use; Water Supply Industry (ISIC 36); and Wastewater Generation and Treatment) request data for some industries not previously requested via the questionnaire (e.g. Mining and quarrying (ISIC 05-09), Construction (ISIC 41-43), etc.).

To date, about 40 countries have responded to the Questionnaire. UNSD has started validating the data and will contact countries for further information as necessary. Reminders are being sent to all countries that have not yet replied. After validation of all responses, the complete results from the 2018 round of data collection will be disseminated on the UNSD website.



## **Workshop on Environment Statistics and Information for Sustainable Development in the Arab Region (Beirut, Lebanon, 12-16 November 2018)**

Thirty-two representatives from national statistical offices and environment ministries (or equivalent institutions) of 15 Arab countries were together in Beirut in November for a workshop on environment statistics and information for sustainable development. The weeklong workshop was organized by the United Nations Statistics Division (UNSD), in collaboration with the United Nations Economic and Social Commission for Western Asia (ESCWA), the United Nations Environment Programme (UN Environment) and the European Environment Agency (EEA).

The workshop consisted of a series of experts' presentations, sharing of and discussion of lessons learned from country practices, and facilitated group discussions. Presentations covered the Framework for the Development of Environment Statistics (FDES 2013) and its supporting materials, environment statistics topics particularly relevant for the region (waste, water and climate change), environmentally-related indicators of the Sustainable Development Goals, and regional and international initiatives at the forefront of the work on environmental information. Presenters came not only from the organising institutions, but also from the Food and Agriculture Organization of the United Nations (FAO), the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations University (UNU), the Centre for Environment and Development for the Arab Region and Europe (CEDARE), Environment Agency Austria, the European Topic Centre on Inland, Coastal and Marine Waters (ETC/ICM), the National Bureau of Statistics of Tanzania – a country that implemented the FDES 2013 and made important progress in environment statistics over recent years – and the League of Arab States (LAS).

In addition to the presentations, participants emphasised how useful were the group discussions and the sharing of experiences among them. Nine of the countries introduced how they have dealt with different themes in environment statistics and information, leading the whole plenary to engage in lively exchanges during all days of the week. To transform words into action, the workshop ended with a series of recommendations on how countries and international organisations can move forward with their work on the matters discussed.

For more information, including the full agenda and presentations, please visit [the workshop website](#).

## **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. UNSD is working together with UNECA and UN Environment to support countries in the African region in implementation of the Framework for the Development of Environment Statistics (FDES 2013).

Initiation of this support commenced with National Workshops on the Framework for the Development of Environment Statistics (FDES 2013) on 5 February in Banjul, The Gambia and on 12 February 2018 in Windhoek, Namibia, followed by bilateral stakeholder meetings of four days in each country to conduct the Environment Statistics Assessment, using the Environment Statistics Self-Assessment Tool (ESSAT) of the FDES 2013.

Implementation has continued with UNSD including supporting national consultants who have assisted the national environment statistics units in development of the draft National Action Plans for Environment Statistics and Compendia of Environment Statistics. The Compendia followed the structure of the FDES and the Action Plans utilized the National Action Plan Template developed by UNSD. National Statistics Offices are currently in the process of reviewing the Compendia and Action Plans. Follow up missions to each country to convene stakeholders for further discussion of institutional collaboration, immediate priorities for implementation of the FDES and for validation of compendia will take place in 2019.

## Geospatial and Environmental Dimension of the 2030 Agenda in the Arab Region

(Contributed by Wafa Aboul Hosn, Chief Economic Statistics, United Nations Economic and Social Commission for Western Asia)

UN-ESCWA partnered with The [European Topic Centre of the University of Malaga, Spain \(ETC-UMA\)](#) in the development of a programme to identify relevant geospatial information available, to develop national workflows to monitor SDGs, and to build geospatial skills nationally and address country challenges to SDG monitoring. This capacity enhancement leads to the adoption of consistent approaches, methodologies and indicators to be used at national level. It also enables regional comparisons and monitoring progress in reaching the SDGs.

UN-ESCWA and ETC-UMA worked with three member countries: Jordan, Egypt and Palestine to identify the largest number of national institutions in relation to geospatial data and environment. Furthermore, UN-ESCWA and ETC-UMA have launched an EU-designed survey ([https://ec.europa.eu/eusurvey/runner/SDG\\_data\\_needs](https://ec.europa.eu/eusurvey/runner/SDG_data_needs)) mainly on population, human settlements and infrastructure; land use and land cover; biodiversity; water; air quality and marine ecosystems. and that addressed the following: a) availability of relevant sources of spatial data for SDG indicator reporting b) data needs and data gaps select the thematic areas where data is needed to meet the requirements and c) spatial data analysis, management and storage capacities.

The survey was completed by country staff. The results of the survey provided an overview of the state of geospatial data availability and prepared the ground for ensuring efficient SDG indicator monitoring and coordination at national and regional levels.

Scoping and training national workshops were hosted and coordinated by the National Statistical Offices of the three countries and included dedicated meetings with staff of statistical offices and other relevant technical agencies to assess national extent and availability of data, identify global open spatial datasets of potential use in the national context and present the details of the SDG monitoring geospatial data. These were followed by a technical training session to discuss access of geospatial environmental workflow proposed by ETC-UMA. On average, 35 experts participated to each of the national workshops organized in collaboration with the national statistical offices in the three countries.

This unique partnership between the UN-ESCWA and ETC-UMA and support to these countries is funded by the United Nations Development Account and includes a team including Dr. Wafa Aboul Hosn, Dr. Ameer Abdulla, Mr. Christoph Schröder, and Dr. Dania Abdul Malak.

The final report is available at: [http://www.etc.uma.es/un\\_escwa\\_etcuma/](http://www.etc.uma.es/un_escwa_etcuma/)

[Sessions on the System of Environmental Economic Accounting \(SEEA\): Serving Environmental Policies for Sustainable Development and the SDGs \(Part 1 the SEEA Central Framework\) and Part 2 \(Ecosystem Accounting\)](#) co-organised by ESCWA and UNCEEAA during the Eye on Earth (EoE) Symposium 2018: 22-24 October 2018 in Dubai, United Arab Emirates (UAE).

The EoE Symposium 2018 was convened by the Environment Agency-Abu Dhabi (EAD), in partnership with the UAE Federal Competitiveness and Statistics Authority and the Eye on Earth Alliance in parallel with the 2nd UN World Data Forum, which was organized by the High-Level Group for Partnership, Coordination and Capacity-Building for the 2030 Agenda for Sustainable Development (2030 Agenda) and the Statistics Division of the UN Department of Economic and Social Affairs, under the guidance of the UN Statistical Commission.

The event gathered experts to discuss evidence-based decision making for environmental and natural resource aspects of sustainable development. Discussions focused on catalyzing and strengthening multilateral partnerships, including: data infrastructure; capacity development; and access to information.

Wafa Aboul Hosn, UNESCWA, chaired the sessions and introduced the SEEA, an international statistical standard that integrates environmental and economic data to provide a more comprehensive and multipurpose view of the relationship between the environment and the economy.

Risenga Maluleke, UN Committee of Experts on Environmental Accounting and Deputy Director-General of Statistics, South Africa, highlighted challenges of data scarcity and funding for statistics in developing countries, emphasizing the opportunities to support the enhancement of statistics through technical assistance and opportunities for improving data collection in the water sector.

(Continued on page 9)



(Continued on page 8)

François Soulard, Environmental Accounts and Statistics Program, Statistics, Canada, spoke on the implementation of SEEA in Canada. He noted the use of geospatial data that includes information on social and economic aspects enables analysis related to social fairness. He showed that Canada, during 2011-2015, had not reduced its greenhouse gases emissions, stressing SEEA as an effective tool for policy making.

Ali Bu'haroon, Federal Competitiveness and Statistical Authority, UAE, outlined the agency's activities to produce energy and environment accounts for the first time, drawing on surveys and administrative data. He expressed hope that future accounting will cover health, education, and other sectors.

Jillian Campbell, UN Environment, presented the possibilities for using satellite data for land accounting. She noted there is no "one-stop shop" that will provide all the needed data for such an exercise and that countries will need to: produce national definitions of the various categories of land to be identified, such as "cropland" and "grassland"; draw on a combination of ground and satellite data; and supplement in-situ data with data derived from modelling, as needed. She concluded that, while satellite data can provide some useful input, countries will need to supplement this with land data of their own in order to produce reliable accounts.

The summary report is available at: <http://enb.iisd.org/download/pdf/sd/enbplus195num6e.pdf>

## UNECE NEWS

(Contributed by Tiina Luige and Michael Nagy)

### 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](#). Work has started to develop a second edition of the Road Map to reflect new information, lessons learned, and emerging challenges, to be released in 2020.

The work is progressing under a UNECE Steering Group co-chaired by Poland and Sweden, to develop practical guidance to countries on implementing the SDG indicator framework, such as setting up online national reporting platforms for statistics for SDGs, and on improving communication and capacity development. The results of the second pilot of data flows from countries to custodian agencies responsible for specific SDG indicators will be released in early 2019. 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) (<https://statswiki.unece.org/display/SFSDG/Statistics+for+SDGs+Home>). The next Expert Meeting on statistics for SDGs will take place on 15-16 April 2019 in Geneva, followed by a workshop on 17-18 April 2019.

### Climate change-related statistics

The **2018 Expert Forum for producers and users of climate change-related statistics** was held from 2-4 October 2018 in Geneva, Switzerland. The annual Expert Fora provide a platform to share experience in developing official statistics and capacity for climate reporting.

The meeting discussed the revision of the UNECE set of climate change-relevant indicators, development of statistics on climate change adaptation, measurement of hazardous events and disasters, and use of geospatial data and earth observations with climate change-related statistics. Country examples were provided by Portugal on the use of climate change adaptation indicators, by Brazil and Italy on the work of NSOs in measuring hazardous events and disasters, by the Netherlands and Mexico regarding the use of geospatial data and earth observations with climate change-related statistics, and by Canada, Sweden, Armenia and Norway concerning cooperation and collaboration on climate change-related statistics. All presentations and the report of the meeting can be found at <http://www.unece.org/index.php?id=47805>

The next Expert Forum will take place on 3-4 October 2019 focusing on measuring climate change adaptation and hazardous events and disasters.

A UNECE Task Force is preparing *Recommendations to NSOs on measuring hazardous events and disasters*, in collaboration with other international organizations active in this area (ESCAP, UNSD, UNISDR, etc.). The Recommendations are planned to be finalised by June 2019.

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

The **fourth Joint OECD/UNECE Seminar on the Implementation of SEEA** will be held in Geneva from 20-21 February 2019. The 2019 Seminar will focus on water accounts and environmentally related taxes and subsidies. These accounts are among the priority accounts for global SEEA databases, as they are of global, regional, and national importance for policy makers. The substantive sessions will discuss policy applications, communication strategies and technical implementation of the aforementioned accounts. Another substantive session will provide practical examples on the implementation of SEEA-Experimental Ecosystem Accounts.

The Seminar will also inform about relevant international developments and capacity building activities of international organisations and countries in the region. All UNECE and OECD countries as well as other UN member countries are welcome to participate in the seminar. It will be held with English-Russian interpretation. The concept note, draft programme and registration link can be found at <http://www.unece.org/index.php?id=50357>

### Environment statistics and indicators

The **15<sup>th</sup> session of the Joint Task Force (JTF) on Environmental Statistics and Indicators** was held from 25-26 October 2018 in Geneva. The Joint Task Force supports the countries of Eastern and South-Eastern Europe, the Caucasus and Central Asia in improving their environmental statistics and indicators.

The meeting discussed progress in establishing a Shared Environmental Information System and the amendment of the *UNECE Guidelines for the Application of Environmental Indicators* (<https://www.unece.org/env/indicators.html>). Furthermore, UNECE and UNSD reported about progress in drafting a statistical framework for waste statistics and the recently finalized Chapter of waste statistics of the *Manual on the Basic Set of Environment Statistics* (see [https://unstats.un.org/unsd/envstats/fdes/manual\\_bsescshtml](https://unstats.un.org/unsd/envstats/fdes/manual_bsescshtml)). Participants agreed on a procedure to review of the *UNECE Guidelines for the Application of Environmental Indicators* and made recommendations for improvements of the Shared Environmental Information System assessment framework. All presentations, background documents and the report of the meeting can be found at <http://www.unece.org/index.php?id=47527>.

UNECE Statistical Division, in cooperation with UN Environment Europe and other partners, is currently planning several **regional and national capacity development activities** related to environment statistics and environment-related SDG indicators. This includes a national workshop on environment statistics and SDGs in the Russian Federation in March 2019 (jointly with UN Environment) and a regional workshop on energy statistics and energy accounting in May 2019 in Tajikistan (in cooperation with International Energy Agency, UNESCAP and UNSD).

## European Environment Agency: sharing European environmental knowledge with Eastern Partnership countries

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

The European Environment Agency (EEA) is a unique institution in its capacity to generate environmental information and knowledge. Through its activities, the EEA supports capacity building as an evidence-driven process, and the long-term transition to a sustainable society. It is increasingly active in these areas in the six Eastern Partnership countries<sup>3</sup> of the European Neighbourhood Instrument (ENI), for whom the EEA acts as a hub for the development of environmental and statistical institutions.

To achieve these goals, the EEA supports the pan-European environmental reporting process in the Eastern Partnership countries by implementing the ENI SEIS II East project<sup>4</sup>, funded by the European Union (EU). Project activities use the EEA's expertise on best national practices in EU Member States to develop the institutional capacities of environmental and statistical authorities in the Eastern Partnership. This is in line with international commitments related to the capacity-building, technology and systemic issues targets of Sustainable Development Goal (SDG) 17: 'Strengthen the means of implementation and revitalize the global partnership for sustainable development'.

<sup>3</sup> Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine ([https://eeas.europa.eu/diplomatic-network/eastern-partnership\\_en](https://eeas.europa.eu/diplomatic-network/eastern-partnership_en))

<sup>4</sup> Shared Environmental Information System (SEIS) principles and practices in the European Neighbourhood Instrument East region (ENI SEIS II East).

(Continued on page 11)



(Continued from page 10)

### Training for experts

In this context, several activities have taken place over the last couple of years. Most recently, in August 2018, the EEAcademy's ENI Summer School on Integrated Environmental Assessments<sup>5</sup> took place with a view to supporting experts in the assessment field. The school built on the expertise of the EEA and its European environment information and observation network (Eionet), and on scientific advances in the field of integrated environmental assessments.

Some 18 experts from Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine, as well as six experts from EU Member States attended the school.<sup>6</sup> The course — designed and hosted by the EEA and experts from the Netherlands Environmental Assessment Agency (PBL) — focused on the co-creation and sharing of knowledge. It covered the 'what, why and how?' of integrated environmental assessments and looked in depth at how to move from such an assessment towards a more holistic integrated sustainability assessment. The course included academic and scientific presentations and hands-on exercises to develop practical skills and expertise.

Throughout 2018, the EEA and the Slovak Environment Agency (SEA) have held four vocational training courses in Minsk, Belarus (18-20 April), Tbilisi, Georgia (15-17 May), Baku, Azerbaijan (17-19 July) and Kyiv, Ukraine (2-4 October). A training package was developed for the training sessions, including didactic materials describing how to prepare data, indicators and assessment reports. The latest European methodologies and tools, such as the Environmental Indicator Catalogue<sup>7</sup> (maintained by Eurostat with EEA support) and integrated environmental assessment applications were used to assess environmental indicators and integrate them into environmental reports.

Prior to these activities, in November 2017, the EEA and the SEA helped improve experts' skills in state of the environment reporting. The aim was to build the capacity of national institutions working on the EEA's European Environment — State and Outlook report (SOER).

To kick off the institutional capacity development work, during August and September 2017, a vocational training course on environmental accounting was held in Montpellier, France. The course built on the capacity of the French Agricultural Research Centre for International Development (CIRAD)<sup>8</sup> in the field of environmental accounting. It also benefitted from the accumulated expertise of the EEA, the United Nations Convention on Biological Diversity (UN CBD), the United Nations Economic Commission for Europe (UNECE) and the United Nations Environment Programme (UNEP), and cooperation with these institutions. Regional networks of national policymakers and experts were also involved.

The training was based on the Central Framework<sup>9</sup> and the Experimental Accounting System of the UN's System of Environmental Economic Accounting<sup>10</sup>, and methodologies being developed at the EEA. The focus was on land cover accounts and relied in particular on the EEA's 10 years' practical experience in producing and disseminating these accounts. The training covered the UN Sustainable Development Goal (SDG) indicators and described how to merge the reporting processes of three UN conventions (the International Panel on Climate Change, the UN CBD and the Convention to Combat Desertification) with the SDGs' short-term perspectives and longer-term expectations.

### EEAcademy

The EEAcademy is a knowledge and learning hub for the EEA and the Eionet, the EEA's Scientific Committee and EU institutional partners interested in developing competences on environmental sustainability issues at European and international levels. Created in 2016, it encompasses capacity-building and educational activities in knowledge areas where policy needs are evolving and where EEA-Eionet experience and competences need further development to meet new challenges. Key features of the EEAcademy include seminars and lecture series, a knowledge innovation lab and summer/winter schools.

As all the above activities illustrate, capacity building is integral to common efforts to tackle global issues such as climate change and global warming, which are perhaps the greatest threats our planet faces. Without capacity building, the Eastern Partnership countries will lack the institutional responses to achieve the necessary results.

<sup>5</sup> <https://www.youtube.com/watch?v=IBoXIHdHVBo&feature=youtu.be>

<sup>6</sup> <https://eni-seis.eionet.europa.eu/east/areas-of-work/communication/newsletter/eeacademy-eni-summer-school-on-integrated-environmental-assessment>

<sup>7</sup> <https://ec.europa.eu/eurostat/web/environment/environmental-indicator-catalogue>

<sup>8</sup> <https://www.cirad.fr/en/who-are-we/cirad-in-a-nutshell>

<sup>9</sup> <https://seca.un.org/content/seca-central-framework>

<sup>10</sup> <https://seca.un.org/ecosystem-accounting>

(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) and other policy monitoring frameworks

Eurostat has a [dedicated website for SDG indicators](#). The latest Eurostat SDG communication package was published in September 2018, including the full [monitoring report on progress towards the SDGs in the EU context - edition 2018](#), [the brochure with key findings as well as the new digital publication 'SDGs & me'](#). The review process for the list of indicators for the upcoming 2019 monitoring report is due to finalise end 2018.

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.

### Environmental statistics

Eurostat maintains the European Commission monitoring framework for the circular economy in this [dedicated website](#) and the resource efficiency scoreboard in this [dedicated website](#). A new [website about climate change related statistics](#) was also published. The [online article](#) on the driving forces behind climate change was updated in early autumn.

The results of the 2018 data collection on waste statistics according to Regulation (EC) 2150/2002 are published [here](#) (new data for 2016). The online articles [here](#) and [here](#) are due for update in the next weeks. The results of the 2018 OECD/Eurostat Joint Questionnaire on municipal waste are also due in the next weeks and [this online article](#) is due for update in December. The data collections on waste streams (packaging waste, waste electric and electronic equipment, end of life vehicles and batteries) were completed in September-October and there data published [here](#). Due for update in December are the online articles on [electrical and electronic equipment](#), [waste packaging](#) and [batteries](#).

The 2018 data collection on inland waters, including regional information, is ongoing with a reporting deadline of 14 December. There is enhanced methodological coordination with OECD, FAO and UNSD to better serve the information needs of SDG 6 – Water and sanitation. The results of forestry statistics are available [in this article](#). Data on the production and trade in wood products collected with the Joint Forest Sector Questionnaire were [published](#). 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. An overview of data published on forestry and forests by Eurostat can be accessed on this [link](#).

### SEEA environmental accounts

The results of the 2018 data collection for air emission accounts (2016 data and early estimates of greenhouse gases emissions for 2017) [were published](#).

The early estimates of material flow accounts (2017 data) [were published](#) in July and the [online article](#) updated.

The 2018 data collections on environmental taxes, and energy accounts had reporting deadline on 30 September. The results will be published in the next weeks. The data collections for material flows, environmental sector and environmental protection expenditure have reporting deadlines end December and are due for publication in early 2019. All these data collections are annual and mandatory for EU Member States. Eurostat publishes 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 also publishes [air emission footprints](#) and two datasets with material footprints ([aggregate and detailed](#)).

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](#). The full list of published INCA output can be found in the [methodology section under 'Ecosystem accounts'](#).

*(Continued on page 13)*



(Continued from page 12)

Eurostat also facilitated training courses on environmental statistics and SEEA for European compilers on the following subjects: physical environmental accounts, water statistics and accounts, monetary environmental accounts, indicator systems (SDGs etc.), and ecosystem accounting. The course on waste statistics is scheduled for 4-5 December (Vienna). Material from past courses is available [here](#).

## Environmental Statistics in the Common Market for Eastern and Southern Africa (COMESA)

(Contributed by Anand Sookun and Themba Munalula)

The COMESA region has made some progress in implementing environment statistics in some of its Member States, since 2015. The first COMESA Compendium on Environmental Statistics was released after technical assistance was provided in 2015. Madagascar, Ethiopia, Zambia and Zimbabwe have already published their compendia based on the Framework for the Development of Environment Statistics (FDES 2013) format, with its different components, themes and topics. The links to these publications can be found on the UNSD website (<https://unstats.un.org/unsd/envstats/fdescompendia.cshtml>).

COMESA is planning to extend its environment statistics related fields of interventions to include the Blue economy and pursuant to its mandates to support Member States, drafted a paper on blue economy statistics. The paper was presented and discussed at the Ninth Meeting of the COMESA Committee on Statistical Matters held in Lusaka, Zambia, from 7th to 9th November 2018. The blue economy has many commonalities with the FDES 2013 and climate change themes are essential components.

The COMESA Statistics Unit, begun work on developing a framework that could be used to collect statistics for the strengthening of the blue economy in the region. The COMESA Medium Term Strategic Plan 2016-2020 recognizes the Blue/Ocean Economy as covering aquatic and marine areas, including oceans, seas, coastlines, lakes, rivers and groundwater. Furthermore, it includes many productive sectors such as fisheries, aquaculture, tourism, transport, shipbuilding, energy, bioprospecting and underwater mining to accelerate structural transformation. The blue economy is an important sector for development and statistics related to it will be crucial for planning and monitoring.

There are noted developments on the blue economy statistics in Member states and some countries made progress in initiating statistical responses towards the blue economy. There is need for developing a coherent regional approach to developing blue economy statistics and sharing of experiences on the development of blue economy statistics by some countries like Egypt, Mauritius, Seychelles and Tunisia. It was further noted that a multi-sector institutional set up is necessary, given the nature of blue economy statistics. The following broad roadmap was adopted:

- Undertaking of regional capacity building in order to present a coherent and harmonized approach to developing blue economy statistics;
- Undertaking of national capacity building on data assessment and appropriately designed tools for data collection;
- Production of work plans or national roadmaps which will guide technical assistance and other interventions to achieve objectives of national roadmaps;
- Enhancement of national institutional capacity building through national inter-institutional platforms, round tables or committees to maximize blue economy related statistics production potential of participating countries as well as the corresponding data sharing / collection protocols that will contribute to the sustainability and the quality of statistics production forward;
- Monitoring and evaluation of progress by COMESA on implementation of roadmaps;
- Exploration of possibilities for funding of aspects of this roadmap through, for example, the 11th EDF Cross Regional envelope's Contribution of Sustainable Fisheries to the Blue Economy of the Eastern Africa, Southern Africa and Indian Ocean region- ECOFISH programme;
- Development of partnerships with organizations such as United Nations Environment Programme for the development of the blue economy statistics in COMESA.

## Regional Seminar to Prepare Countries Taking off in the Compilation of Environmentally Extended-Supply and Use Tables (EE-SUTs) in Africa

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

As the second phase of the ECA capacity-building programme on the compilation and application of environmentally extended Supply-Use Tables (EE-SUTs) in Africa, following up with its Phase I on e-training at the beginning of the year, on 2-6 July 2018, ECA, in collaboration with Statistics South Africa, organized a regional seminar on the compilation of EE-SUTs. The purpose of the seminar was to strengthen further the capacity of participants related to producing SEEA-based EE-SUTs. More than 50 participants and experts took part in the Seminar. They came from ECA member States and related international and regional organizations including Botswana, Burkina Faso, Burundi, Cameroon, Cote d'Ivoire, Ghana, Guinea, Kenya, Lesotho, Mauritius, Morocco, Nigeria, Senegal, South Africa, Togo, Uganda, Zambia, Afristat, and FAO.

The seminar engaged participants on the following topics: compiling various accounts via module-type, hands-on, and numerical exercises to simulate the compilation procedure of physical flow accounts for energy, water, agriculture, forestry, waste and air emissions; technical knowledge and skills on data collection, processing, dissemination, and applications of these accounts for policy formulation; design and formulation of a national strategy and work-plan for conducting a project on SEEA accounts in a country; and shared experience and ideas with each other for compilation of SEEA Accounts.

This seminar also served as a platform for countries without SEEA Accounts yet, for which two special sessions organized for English and French-speaking countries respectively, to talk about the needs, ideas, priorities and challenges on starting a project for compilation. Moving forward, participating countries of the Seminar were welcome to make a formal request for technical assistance in support of the countries to compile the related accounts in their countries. More information and meeting documents for this seminar can be found at

<https://ecastats.uneca.org/acsweb/FocusAreas/EESUT2018.aspx>.

## CARICOM Continues Building Statistical Capacity in Environment Statistics

(Contributed by Philomen Harrison, Regional Statistics Programme, CARICOM Secretariat)

Heads of Government of the Caribbean Community (CARICOM) endorsed a CARICOM Regional Strategy for the Development of Statistics (RSDS) in July 2018. In preparation for the implementation of the RSDS Strategic Framework, it is necessary to review work already put in place or in progress in the key area of Statistics. Among the Strategic Priorities of the CARICOM RSDS is one on **Integrated Statistical System**. A review and consolidation of the data submission processes will be required moving forward with the RSDS implementation and for further development of Environment Statistics.

In the area of Environment Statistics, the Caribbean Community Secretariat commenced work in 1999 and the process of capacity-building has continued since that time. The activity in 1999 in this area was through a Development Account project that was jointly implemented by the CARICOM Secretariat and the United Nations Statistics Division (UNSD). Among the main results that have been achieved are: the identification of CARICOM Core Environment Statistics to inform a CARICOM Programme on Environment Statistics - these statistics included the Official MDG Environment Indicators and Caribbean Specific MDG Indicators (CSMDG) indicators on the Environment. The Secretariat has also produced to date four regional publications on CARICOM Environment in Figures, the latest publication being in 2017 with data up to 2014. Regional workshops and in-country technical assistance have been conducted over this period particularly from funding received from the European Union under the European Development Fund.

At the country level at the commencement of the CARICOM/UNSD Project, there were two countries that had either produced a publication or had commenced development work in this area. These countries were Belize and Jamaica. With the development of the CARICOM Programme the recommendation was for countries to produce Gender and Environment publications in alternate years the original CARICOM/UNSD were in the areas of Gender, Environment and IT support. The CARICOM Member State of Suriname has consistently produced Environment publications in alternate years. Other countries that were also able to produce publications was the Commonwealth of Dominica under the former Director of Statistics, the late Ms. Prayma Carette who brought her country on par with the prime movers in this area of Statistics. In recent years Bermuda also was able to produce a number of publications and was able to make use of Satellite Imagery relative to the theme on Land Use. St Vincent and the Grenadines recently produced a publication and Trinidad and Tobago was also able to produce publications. Interestingly both Dominica and Trinidad and Tobago benefitted from South-South cooperation from countries like Jamaica, Belize and Suriname.

(Continued on page 15)



(Continued from page 14)

It is also interesting to note that some of the themes and indicators that were identified under the CARICOM core environment indicators are now reflected in the SDGs. For example, since the commencement of the CARICOM core indicators 2006/8, there were themes on Natural Disasters

ND: NATURAL DISASTERS
ND1(a): Natural Disasters by Year
ND1(b): Incidence of natural disasters; (CSMDG)
ND1(c): Economic losses resulting from natural disasters; (CSMDG)
ND1(d): Social dislocation resulting from natural disasters; (CSMDG)

The indicators ND1 (a) to (c) monitor events such as: The Type of Disaster, the Date Started, No of Casualties-Killed, Injured, Missing, made Homeless; No. Affected by flooding, power outages and general inconveniences; Estimated Value of the Damage. NDI a, b, c and d are combined in one table. A version of this indicator is now reflected in the SDG Indicators.

CARICOM has received support in three areas of statistics including the Environment, from the Government of Italy (Development Cooperation through the Italy National Statistical Institute (ISTAT). This project is also supported by a Regional Public Goods Project provided by the Inter-American Development Bank (IDB) that will provide support in three areas of Statistics including the Environment. The IDB funds would assist in the conduct of assessment of administrative data, provide capacity-building in the development of protocols and Service level Agreements and in the design of an IT system for the exchange of data from the Ministries, Departments and Agencies (MDAs) concerned with the Environment to the National Statistical Offices. A regional workshop would also be conducted to diffuse the technical assistance put in place throughout other countries of the Region. The Secretariat, through this most recent project and with the support of funding from other International Development Partners, will continue to strengthen statistical capacity in an integrated approach which would seek to consolidate the CARICOM Core Indicators/CSMDGs and the 125 Core SDG Indicators including in the area of the Environment that were approved by the Thirty-Fourth Meeting of the Council for Human and Social Development (COHSOD) in May 2018. In the integrated approach the consolidation of the various sets of indicators should lead to indicators that occur in more than one area of statistic being collected once, with a data collection system built on state-of the art IT being utilised for the submission of data nationally and regionally.

## ECLAC Activities in Latin America and the Caribbean

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

### Sub-regional workshop on SDG environment statistics and indicators for Central America, the Dominican Republic and Cuba

As part of the 10th Tranche UN Development Account (DA) project, ECLAC delivered a 3-day [Subregional Workshop on SDG Environment Statistics and Indicators](#), which gathered more than 40 participants from all the Central America countries, Bolivia, Cuba and the Dominican Republic in Panama City, Panama, in October 2018. Supported by the Ministry of Environment of Panama, this workshop used the Environment Statistics Self-Assessment Tool and focused on SDGs indicators related to extreme events and disasters (SDG 1, 11 and 13), biodiversity, forests and agriculture (SDG 14 and 15). Special attention was also given to write national plans for the development of environment statistics.

### Disaster Risk Reduction Data Availability Regional Assessment

As part of the work plan of the Statistical Conference of the Americas' Disaster-Risk Reduction Statistics Working Group, ECLAC is supporting a regional assessment on extreme events, disasters and disaster risk reduction statistics.

In partnership with the German Cooperation and UNISDR, ECLAC is currently developing data availability tools and piloting them in selected countries. A **technical assistance mission to the Dominican Republic** in November 2018 allowed for an in-depth study on national data availability and inter-institutional coordination, thanks to the organization of a [national seminar on disaster risk reduction statistics](#). More than seventy participants from a wide range of institutions, including Ministries, emergency entities, academia, civil society, local governments, donors and private sector, attended the seminar, which was opened by the Minister of Economy, Mr. Isidoro Santana.

Additionally, ECLAC contributed to the [2018 Technical Forum on the Sendai Monitoring Framework](#) in Bonn, Germany, which was followed by a meeting of the Global Partnership on Disaster-Related Statistics in November 2018.

(Continued on page 16)

(Continued from page 15)

### **Seventeenth meeting of the Executive Committee of the Statistical Conference of the Americas of ECLAC**

The [meeting](#) included the review of the activities of the Conference on the monitoring of the SDGs and the progress towards the implementation of the biennial programme of regional and international cooperation activities, 2018-2019. The meeting was preceded by a [High-level seminar on integrating non-traditional data sources into National Statistical Systems \(NSS\)](#), where the use of non-traditional sources for environment statistics was showcased as a good practice. Brazil, Chile and Costa Rica presented innovative experiences in the area of environment statistics.

### **Regional Network of Environment Statistics: Fifth Webinar on Forest Accounting in LAC**

Within the framework of the Regional Network of Environment Statistics launched in Rio, Brazil in December 2017, ECLAC organized its fifth webinar on **Forest Accounting** in August 2018. The goal of the webinar was to strengthen capacities in terms of forest accounting methodologies and use and to showcase experiences from Brazil, Costa-Rica and Chile. More than 30 officers from National Statistical Offices, Central Banks and Environment Ministries from 10 LAC countries, as well as World Bank representatives, attended the two-day online event.

### **Climate Change-related Statistics: support to Latin American and Caribbean (LAC) countries**

ECLAC trained representatives of indigenous people on climate change statistics and indicators at a workshop on climate change finance organized by FAO/FILAC in October 2018 in El Salvador. ECLAC also delivered key statistical concepts in a [subregional workshop on marine ecosystems \(SDG 14\)](#) in Honduras organized by the MesoAmerica project.

The previously mentioned sub-regional workshop on SDG environment statistics and indicators was held back to back with a **follow-up technical assistance mission to Panama** to review national work on environment SDG indicators in October 2018.

In October 2018, ECLAC also participated in the [Second Conference of the Cities](#) to follow-up on the New Urban Agenda, especially the session dedicated to **urban mobility data and origin-destination surveys**.

### **ECLAC Regular Data Collection on Environment Statistics: CEPALSTAT and Statistical Yearbook 2019**

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](http://estadisticas.cepal.org/cepalstat/WEB_CEPALSTAT/Portada.asp?idioma=i)). It includes new environment series to better showcase the most relevant issues in the Latin American and Caribbean region, in particular climate change ones (glaciers, temperature and motorisation).

## **ESCAP NEWS**

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

### **Ocean Accounts Partnership**

The Regional Expert Workshop on Ocean Accounts (1-3 August 2018), as highlighted in issue 43 of ENVSTATs, benefited from the participation of over 80 international, regional and national experts in related statistics, science and policy. The workshop endorsed the overall approach to ocean accounting, which combines aspects of the SNA, SEEA Central Framework, FDES and SEEA Ecosystems. The main recommendations were to:

- Develop spatial units and classification standard for coastal and marine ecosystems;
- Engage disaster risk and climate change communities of practice to explore common data requirements;
- Identify coastal stakeholders;
- Select or develop a standard classification of the “ocean economy”;
- Develop a set of “essential ocean variables” that countries would be supported in collecting;
- Engage more closely with the modelling community to ensure models link into an overall information platform.

Further details are available in the workshop summary report: <https://oceanaccounts.unescap.org>.

(Continued on page 17)



*(Continued from page 16)*

### **Training Programme on Climate Change Related Statistics and the System of Environmental-Economic Accounting (SEEA) for Pacific Island Countries**

ESCAP, through its Pacific Office, Statistics Division and the United Nations Statistical Institute for Asia and the Pacific, organised a Training Programme on Climate Change Related Statistics and the System of Environmental-Economic Accounting (SEEA) for Pacific Island Countries in Nadi from 17-21 September 2018. Participants were from statistics offices and line ministries/ departments representing: Fiji, Kiribati, Republic of Marshall Islands, Federated States of Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, and Vanuatu. The objectives of the workshop were to:

- Improve understanding of basic concepts and frameworks on statistics related to climate change and SEEA;
- Produce selected climate change-related indicators using national data acquire basic knowledge and skills on the SEEA accounting principles, and identify basic data needs for compiling accounts;
- Facilitate experience sharing among participating countries, understand country plans, and identify opportunities for collaboration; and
- Promote the use of SEEA and climate change related statistics in policy formulation and monitoring.

### **Technical Assistance on FDES/SEEA implementation (June 2018 – November 2018)**

- The Asian regional workshop on forging regional partnerships in implementing SDG 14 and other related marine and coastal goals, PEMSEA and Korean Maritime Institute, Bangkok, 11-12 July 2018;
- Assessment and work planning workshop for improving energy balances, Hanoi, Viet Nam, 17-19 July 2018;
- The 5th international symposium and workshop on marine ecosystem services and marine spatial planning and management, Seoul, Korea, 30-31 August 2018;
- Training and technical assistance mission on SEEA water accounts, Ulaanbaatar, Mongolia, 3-5 September 2018;
- Technical assistance mission on water, energy and solid waste accounts, Apia, Samoa, 12-14 September 2018;
- Training programme on climate change related statistics and the system of environmental-economic accounting for Pacific Island countries, Nadi, Fiji, 17-21 September 2018;
- Assessment/training/work planning mission on ocean and land accounts, Port Vila, Vanuatu, 24-26 September 2018;
- Training and technical assistance workshop for finalizing the improved energy balances, Hanoi, Viet Nam, 29-30 October 2018;
- Technical advisory workshop on water accounts, Manila, the Philippines, 19-20 November 2018;
- Regional training course on climate change-related statistics, SIAP, Chiba, Japan, 26-30 November 2018;
- Online advisories (via email and teleconference): Fiji on updated energy accounts; Tonga on energy accounts and the Maldives on water and waste accounts.

### **Upcoming activities (December 2018-June 2019)**

- National ocean accounts scoping, training and work planning workshops in Indonesia, Thailand and other pilot countries (TBD)
- Sub-regional training on energy statistics and accounts with IEA, UNECE, UNSD (TBD)

## Environmental Statistics and Accounts in India

(Contributed by Rakesh Kumar Maurya, Ministry of Statistics & Programme Implementation, India)

Modernization of industrialization and progress have brought about major benefits to human health and well-being, but, at the same time, they have also been responsible for losses in terms of the environmental degradation. These adverse environmental impacts have also been part of Indian thought and social processes for a long time. They have been reflected in the Indian Constitution which also emphasizes on creation of awareness among the people and political movements to reduce the impact of environmental degradation and to protect and maintain the environment for present and future generations. In respect of official statistics on environment in India, there are three prime areas in which the activities of the nodal agency, i.e., the Central Statistics Office, under the Ministry of Statistics and Programme Implementation (MoSPI), can be classified.

1. Environment Statistics
2. Environment Accounts
3. International Coordination

Some of the activities taken up by the Central Statistics Office (CSO) in these areas are highlighted in the following paragraphs.

### Environment Statistics

In 1997, CSO brought out the first issue of “Compendium of Environment Statistics”, which followed the United Nations Framework for Development of Environment Statistics 1984. Since its inception in 1997, sixteen issues of the publication have been brought out on UNSD’s FDES-1984 Framework, presenting data relating to environment of the country. The compendium provides a glimpse of the present scenario of the environmental degradation, its causes and the reasons for concern. It also provides the necessary base to bring out the magnitude of the problem. Subsequently with the release of the Driving force – Pressure – State – Impact – Response (DPSIR) framework suggested for Climate Change, another publication, “Statistics related to Climate Change” was conceptualised in 2013 and two issues have been released of this publication.

With the release of FDES 2013, which is compatible with the DPSIR framework, a revision was mandated in the way environment statistics was being presented by CSO. Accordingly, a new publication, “EnviStats-India” was released by CSO in March 2018, replacing the two publications – “Compendium of Environment Statistics” and the “Statistics related to Climate Change”. It is based on the FDES 2013 framework, covering 84 of the 100 indicators in the Core Set and 44 and 6 of the Tier 2 and Tier 3 indicators respectively. More indicators are likely to be added in the subsequent issues. The publication, using the FDES 2013 framework, provides the present status of environmental resources and conditions of environment in terms of time series/annual information wherever available. The publication aids in pointing out significant changes over the years, which can help in identifying important issues and/or areas of particular concern for policy-makers. The publication “EnviStats-India 2018” is available at following link

<http://www.mospi.gov.in/publication/envistats-india-2018>.

### Environment Accounts

With the objective of developing environmental economic accounts using the System of Environmental Economic Accounting (SEEA) - Central Framework adopted by the United Nations Statistical Commission as an international statistical standard in 2012, a high level Expert Group under the Chairmanship of Prof. Sir Partha Dasgupta, Frank Ramsey Professor Emeritus of Economics, University of Cambridge, U.K. was constituted by MOSPI in 2011 with the mandate of developing a framework for green national accounts of India and preparing a roadmap to implement the framework. The Expert Group in its report titled “Green National Accounts in India-A Framework”, spelt out a roadmap with short-term, medium-term and long-term activities for implementing the Green Accounting Framework.

In line with the roadmap and with the help of an Inter-Ministerial Group (IMG), with representation from all the concerned official agencies, CSO India brought out the first official publication on environment accounts - “EnviStats-India 2018: Supplement on Environmental Accounts” – in September 2018 which gives the aggregate environment accounts for India with the asset accounts in physical terms of four vital natural resources – forest, land, minerals and water. State-wise information has been provided for assessing the aggregate changes in the cohort of environmental assets of States of India which can help policy makers identify the areas warranting focused interventions for taking remedial actions and evaluation. The publication “EnviStats-India 2018: Supplement on Environmental Accounts” is available at following link

<http://www.mospi.gov.in/publication/envistats-india-2018-supplement-environmental-accounts-0>.

(Continued on page 19)



(Continued from page 18)

### International coordination

This Ministry has actively participated in the revision of the Framework for the Development of Environment Statistics (FDES 2013) and in the meetings of the Expert Group on Environment Statistics (EGES).

India has been actively participating in the United Nations Committee of Experts on Environmental-Economic Accounting (UNCEEA) and London Group on Environmental Accounting in mainstreaming environmental-economic accounting and related statistics and advancing the implementation of the SEEA in countries. In addition, India has also been participating in the revision process of SEEA- Experimental Ecosystem Accounting for finalizing the extensions of ecosystem accounting concepts, methods and structure and providing practical guidance on its implementation.

India is also a partner in the “Natural Capital Accounting and Valuation of Ecosystem Services” project launched by the United Nations Statistics Division (UNSD). This EU-funded project is under implementation as a partnership project between United Nations Statistics Division (UNSD), the United Nations Environment Programme (UNEP) and the Secretariat of the Convention of Biological Diversity and is likely to propel India on the path of compilation of ecosystem accounts.

As regards the dissemination and use of environmental statistics and accounts, CSO India is focal point for the Global Indicator Framework and National Indicator Framework for monitoring of Sustainable Development Goals.

## Environmental Statistics and Accounts in the Netherlands

(Contributed by Arthur Denneman, Statistics Netherlands)

Below a short overview is given of the main environmental statistics publications from Statistics Netherlands in the past year. As usual many [data tables](#) are regularly updated. The figures alone, however, do not tell the full story about a specific environmental topic. Such stories are told in [Environmental Data Compendium](#), which is a partnership of four organizations: Statistics Netherlands, Wageningen University and Research, the Netherlands Environmental Assessment Agency, and the National Institute for Public Health and the Environment.

On a daily basis Statistics Netherlands produces news releases on all kinds of socio-economic domains, including [Nature and Environment](#). Due to the global discussions on climate change issues many of the news releases are on the emissions of greenhouse gasses (GHG). They cover a full spectrum of GHG topics. The [May 9, 2018](#) news release contained three figures: (1) the IPCC GHG emissions of the Dutch territory, (2) the carbon dioxide (CO<sub>2</sub>) emissions by energy companies, and (3) the SEEA GHG emission intensity of the Dutch economy. The [May 17, 2018](#) news release was focused on the Dutch GHG footprint. The [September 10, 2018](#) news release showed CO<sub>2</sub> emissions by sectors and municipalities. Substantial regional differences are clearly visible; hotspots are the municipalities with power plants and large industrial sites. Statistics Netherlands also disseminates the CO<sub>2</sub> emissions of the Dutch economy on a quarterly basis (45 days after the end of a quarter).

The other news releases cover statistics on, e.g., waste, manure, water, pesticides, and costs of environmental protection. A detailed description of all these areas will not be given here. Instead references will be given to publications in which these areas are presented in a coherent way. For instance, to monitor the greening of the Dutch economy a framework was developed consisting of 6 themes containing 41 policy-relevant indicators ([Green Growth](#); includes visualization at the bottom). The 6 themes are: environmental efficiency, resource efficiency, natural resources, environmental quality of life, green policy instruments and economic opportunities.

Another important use of Environmental Statistics and Accounts concerns the compilation of [Sustainable Development Goals indicators](#) and the publication of the [Monitor of Well-being](#). Three concepts are distinguished within the concept of broad well-being: ‘here and now’, ‘future’, and ‘elsewhere’. The Monitor of Well-being proved to be a useful, innovative instrument in the annual Accountability Debate (3<sup>rd</sup> Wednesday of May) by the Dutch House of Representatives.

## Environment Statistics in Suriname

(Contributed by Anjali De Abreu, General Bureau of Statistics Suriname)

Suriname has 16 years of experience in environment statistics and published the 8<sup>th</sup> compendia on the 14<sup>th</sup> of December 2018. The first compendium on environment statistics was released in 2002 as an output emanating from the UNSD/CARICOM Project (Now: CARICOM programme) “Strengthening capacity in the compilation of statistics and indicators for Conference Follow up in the CARICOM region”. The General Bureau of Statistics Suriname has actively taken part in regional and international co-operation, including contributing to the CARICOM Core list of environment indicators, contributing to the revision of the Framework for the Development of Environment Statistics (FDES 2013), participating in the IDB-Regional Public Goods Project and participating in the Expert Group on Environment Statistics (EGES).

CARICOM (Core list), UNSD (FDES 2013) and UN (SDG) guidelines are used to collect the data. In the first quarter of 2018, data request letters were sent to circa 55 stakeholders from relevant ministries and institutions that cover certain environmental areas. With the collected information the zero draft publication was produced and presented at the eighth environment statistics workshop held on the 14<sup>th</sup> of August in hotel Marriot. It was a successful workshop with circa 75 participants who validated the zero draft publication and presented their comments by the end of the workshop. An attempt was also made to collect data on the environment related SDGs. From August until November the zero draft publication has been revised and the eighth environment statistics publication was launched on the 14<sup>th</sup> of December 2018 in hotel Torarica. The workshop and the launch were funded by the United Nations Development Programme in collaboration with the National Institute for Environment and Development in Suriname (NIMOS).

As regards the dissemination and use of environment statistics, the General Bureau of Statistics Suriname is also responsible for data collection for the Sustainable Development Goals. The last three compendia are available on the General Bureau of Statistics Suriname website, whereas the eighth compendium will be available in January 2019. Data is also available through our SurinameEnvironmentInfo devInfo database that contains data from 2008 until 2017. <http://www.statistics-suriname.org/index.php/statistieken/downloads/category/34-milieu-publicatie-2012>. <http://www.devinfo.org/surinameenvironmentinfo/libraries.aspx/Home.aspx>

## FORTHCOMING EVENTS

- 50th session of the Statistical Commission (New York, 5-8 March 2019)
- Sixth Meeting of the Expert Group on Environment Statistics (New York, 21-23 May 2019 (tentative dates))

**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](mailto:envstats@un.org)