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News and Notes

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

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FOCUS: # The United Nations Statistical Commission's adoption of the Global Set of Climate Change Statistics and Indicators, and subsequent efforts
(Contributed by UNSD and UNFCCC)

Adoption of the Global Set

Following a tremendous effort by the Environment Statistics Section of the United Nations Statistics Division (UNSD), the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) and members of the Expert Group of Environment Statistics (EGES), the Global Set of Climate Change Statistics and Indicators was adopted at the 53rd session of the United Nations Statistical Commission[1] in March 2022 as the framework for climate change statistics and indicators to be used by countries when preparing their own sets according to their individual concerns, priorities and resources. In addition, as specified in the Report of the Statistical Commission, the international statistical community is urged to expand its capacity development efforts with regard to climate change statistics by fostering closer collaboration and coordination among the multiple agencies involved in the process, and the donor community is urged to mobilize resources to enable capacity building in environment and climate change statistics in developing countries.

Without question, the adoption of the Global Set is the most significant volume of work undertaken by the Environment Statistics Section of UNSD in close collaboration with UNFCCC and the EGES for the consideration of the Statistical Commission since it adopted the Framework for the Development of Environment Statistics (FDES) in 2013. Subsequent to the adoption of the Global Set, it is firmly upon those working in this field to now put the Global Set to work. To promote this work UNSD and UNFCCC organized a Virtual Side Event at the 53rd session of the Statistical Commission, presenting the Global Set of Climate Change Statistics and Indicators and several country initiatives [see article below by UNSD].

To put the Global Set to work, UNSD proposed a list of activities included in section V of the Report of the Secretary-General on Climate Change Statistics[2] to the 53rd Session of the Statistical Commission. They require three main priorities of further work as described in para. 33 of the report: (a) to encourage the implementation of the global set of climate change statistics and indicators in countries; (b) to further develop the methodology and contribute towards enhanced complementarity between global, regional and national initiatives; and (c) to enhance the coordination of capacity development and resource mobilization. The Statistical Commission approved the proposed workplan and the detailed activities (paras. 35-38 in the report to the Commission) which will be discussed at the next meeting of the EGES (25-28 October 2022, virtual) and an update will be provided to the Statistical Commission in two to three years.

Capacity development and implementation support

As is often the case when the Statistical Commission adopts a body of work of the scale of the Global Set, many countries expressed support to the proposed activities via written and oral statements. In these statements about half of the countries underlined their need for capacity development support from UNSD. This includes the need for training on applying the Global Set; the need for national missions; interest in receiving on-line support; and guidance for developing national surveys on climate change statistics. UNSD is grateful to member states who were able to demonstrate interest in this work in this fashion, and shall seriously consider such comments when planning forthcoming capacity development initiatives and reach out to capacity development partners to facilitate fulfilment of these requests.

When the Statistical Commission adopted the FDES in 2013, UNSD then embarked upon capacity development activities in close collaboration with many UN member states and other key stakeholders. Following the 2022 adoption of the Global Set, by applying the Global Set of Climate Change Statistics and Indicators, it is envisioned that member

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[1] See Report of the Statistical Commission at: https://unstats.un.org/unsd/statcom/53rd-session/documents/2022-41-FinalReport-E.pdf .

[2] See Report of the Secretary-General on Climate Change Statistics at: https://unstats.un.org/unsd/statcom/53rd-session/documents/2022-17-ClimateChangeStats-E.pdf

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states' national statistical offices will be able, inter alia, to: develop national climate change statistical programmes; strengthen collaboration with focal points to the UNFCCC; increase involvement in data submissions to UNFCCC for supporting the implementation of the Paris Agreement; and produce and disseminate climate change statistics via dedicated reports, websites and other means.

More information on the recent developments, planned activities and a brief description of the Global Set are included in the Report of the Secretary-General to the 53rd session of the Statistical Commission. This report is translated into the six UN languages and it contains Annex II listing all the indicators (also translated). The full description of the Global Set and its metadata is included in the Background document to the Report of the Secretary-General, entitled Global Set and metadata.

In addition, another Background document entitled Global Consultation on the Global Set presents a comprehensive summary of the consultation process and its outcomes. This second Background document comprises four sections, starting with an analysis of the country responses to Part I of the Global Consultation, with key messages on their involvement in climate change programmes, institutional settings, production and dissemination activities, capacity develop needs and activities; an analysis of the agency responses regarding their main data collection, methodological development and capacity development activities; an analysis of the country responses to Part II of the Global Consultation; and concluding remarks and an annex presenting an inventory of the agency responses to Part I of the Global Consultation.

In the past months UNSD has been working on several of the implementation support tools that are included in the work plan mentioned above. With the help of international consultants UNSD initiated the development of implementation guidelines, training materials and a climate-ESSAT. The drafts of these implementation support tools will be discussed at the next EGES meeting, scheduled to take place at the end of October 2022. The self-assessment tool or climate-ESSAT is essential since it will assist any country to complete an assessment of the needed and available resources as a first step towards developing a national programme on climate change statistics. It is recommended that NSOs undertake this first step in close collaboration with the national climate change authority and other stakeholders. The key questions to be considered as part of the self-assessment are currently being drafted by UNSD based on the example of the FDES ESSAT. The draft climate-ESSAT can be provided to interested countries on demand by contacting envstats@un.org.

While further reviews and discussions are needed before the draft climate-ESSAT and the other tools are finalized and widely promoted, and since many countries are already engaged in developing their own national sets, UNSD has currently posted the final Global Set in an Excel file on the UNSD website: Global Set of Climate Change Statistics and Indicators.

This file contains two sheets:
•   In sheet one the users can consult the complete explanation of changes on topics, indicators and statistics (column K) which were applied to update the draft Global Set (columns C-F) (that was submitted to the Global Consultation in 2021) into the final Global Set (columns G-J) (adopted by the Statistical Commission in March 2022). This information complements that provided in Annex I of the background report 'Global Set and metadata'.

•   In the second sheet the users can consult the indicators and statistics included in the final Global Set and the correspondences with climate policy references and the indicators/statistics from the FDES, SDGs, Sendai Framework and the CES (or ECE) core set of climate-related indicators. This information complements the table on page 7-27 of the same background report.

This Excel file is intended to assist countries in either initiating or advancing their work in climate change statistics during the process of finalizing the climate-ESSAT by UNSD in collaboration with the EGES.

UNSD is also engaged in regional capacity development work, namely assisting ECLAC in the implementation of its Development Account (DA) 12 funded project entitled "Caribbean SIDS relevant climate change and disasters indicators for evidence-based policies"; and taking part in the new ECE task force on the role of NSOs in achieving

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national climate objectives. UNSD has also engaged with the Common Market for Eastern and Southern Africa (COMESA) and the Economic Community of West African States (ECOWAS) which are both undertaking very ambitious projects to deliver capacity on environment statistics and climate change statistics in a number of African countries. Another complementary activity to which UNSD contributes is the Paris21 initiative on a climate change data ecosystem. A seminar was held in April 2022 in which the Director of UNSD gave opening remarks emphasizing how climate change data can be put to action for inclusion in a sustainable climate change data ecosystem. [see article below by Paris21]. Finally, UNSD is also engaged in setting up capacity development activities via the Regular Programme of Technical Cooperation and the DA14 project to take place later this year.

Methodology related initiatives

In terms of methodological development, UNSD continues to support OECD's International Programme for Action on Climate (IPAC) by taking part in its Technical Expert Group (TEG) meetings, of which the latest ones took place in March and May 2022. IPAC aims to supports country progress towards net-zero greenhouse gas (GHG) emissions and a more resilient economy by 2050. Through regular monitoring, policy evaluation and feedback on results and good practices, IPAC helps countries strengthen and co-ordinate their climate action. It complements and supports the UNFCCC and the Paris Agreement monitoring frameworks [see article below by OECD].

Since the beginning of this year UNSD is also engaging with UK's Office for National Statistics (ONS), in a new 3-year project which aims to develop standards for official statistics on climate-health interactions [see article below by ONS].

UNSD NEWS:

UNSD organizes a Virtual Side Event on the Global Set of Climate Change Statistics and Indicators on the margins of the 53rd Statistical Commission (22 February 2022)

UNSD hosted a Side Event at the 53rd Statistical Commission, titled "Global Set of Climate Change Statistics and Indicators" and was attended by 115 participants. UNSD shared the background of the Global Set of Climate Change Statistics and Indicators, its mandate and objectives, their metadata details, and outcome and conclusions based on the global consultation. UNFCCC presented their policy frameworks, and updated on the development, progression and outcomes of the Enhanced Transparency Framework from Paris COP 21, Katowice COP 24, to Glasgow COP 26, as well as described its close collaboration with UNSD on the development of the Global Set.

National experiences on the application of the draft Global Set and contribution to the global consultation, as well as their own country experiences in the development of climate change statistics, were shared by the United Kingdom, Suriname, Hungary, Nepal and Tanzania, all members of the Expert Group on Environment Statistics. The important role of national statistical offices as compilers of climate data, the continuing engagement and development of climate change statistics capacity, and the usefulness of the Global Set was emphasized by all presenters and participants. In addition, discussion focused on the implications on national statistical offices to implement the Global Set and the need for capacity development, the relationship between the Global Set and the SDG Goal 13 indicators, climate change related health indicators, and the experience of ECLAC in applying the Global Set in capacity development work with countries in their region.

Environment Statistics and Climate Change Statistics Reports and Surveys

Many countries are continuing to compile environment statistics compendia and similar publications which apply the FDES 2013 which UNSD makes available on its website at https://unstats.un.org/unsd/envstats/fdescompendia.cshtml in Arabic, English, French, Portuguese and Spanish. More recently, countries (and agencies) have started producing separate climate change statistics publications for which UNSD has established a dedicated website at: https://unstats.un.org/unsd/envstats/climatechange_reports.cshtml

UNSD NEWS:

UNSD has compiled close to 100 specialized environment statistics surveys and censuses from countries which are available on the website (https://unstats.un.org/unsd/envstats/censuses/) and can be filtered by country, theme and year. Among the most recent surveys posted are surveys concerning household energy consumption, wood inputs, and roundwood removals from the Italian National Institute of Statistics and the Central Statistics Office of Ireland. 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, other environment statistics compendia and specialized reports such as on climate change statistics, as well as surveys or censuses on environment statistics or climate change 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.

Updates on the FDES 2013 and the Manual on the Basic Set of Environment Statistics

The completion of the Manual on the Basic Set of Environment Statistics was postponed in the previous period while UNSD had to devote most of its efforts on preparing the Global Set of Climate Change Statistics and Indicators. Following the adoption of the Global Set, the work on the Manual was prioritised once again. A new methodology sheet on Wastewater was finalized and published on the website in February this year. In total, 15 methodology sheets are currently available at: https://unstats.un.org/unsd/envstats/fdes/manual_bses.cshtml.

Another new methodology sheet, on Freshwater Quality was drafted in collaboration with Statistics Netherlands in the past months. The draft will be circulated among the EGES experts and discussed at the next EGES meeting in October 2022. In addition, the drafts of the methodology sheets on Environmental Health and on Geological and Geographical Information and Statistics were updated and the new versions are also planned to be circulated for review and discussion at the next EGES meeting.

UNSD participates in the ECLAC DA12 project – National workshops on "Generating climate change and disasters indicators for policy decision-making": Saint Kitts and Nevis (22-24 June 2022); Saint Vincent and the Grenadines (27-29 June 2022), and other national workshops organized by ECLAC [see article below by ECLAC]

UNSD participated virtually in two of the DA12 national workshops on Generating climate change and disasters indicators for policy decision-making for Saint Kitts and Nevis and Saint Vincent and the Grenadines. The workshops were organized by ECLAC as part of the DA12 project entitled "Caribbean relevant climate change and disasters indicators for evidence-based sustainable development policies" managed by ECLAC, in close collaboration with the Caribbean Community Secretariat and UNSD.

At each workshop, UNSD delivered a statement in the inaugural session and gave two presentations on: the FDES and its tools such as the Basic Set of Environment Statistics and the Environment Statistics Self-Assessment Tool (ESSAT); and the Global Set of Climate Change and Indicators. UNSD also served as resource persons and participated actively in discussions, many of which focused on the Division's outputs in environment statistics, such as the FDES, the ESSAT, and the Global Set of Climate Change Statistics and Indicators.

UNSD also delivered presentations on the FDES with its implementation support tools and the Global Set of Climate Change Statistics and Indicators at two national workshops organized virtually by ECLAC, on the generation of indicators of climate change and disasters in Ecuador (22-24 February 2022) and on the compilation of environmental SDG indicators in the Dominican Republic (29 and 31 March, 5 and 7 April 2022).

UNSD/UNEP Data Collection

UNSD/UNEP Questionnaire 2022 on Environment Statistics (waste and water sections)
The UNSD/UNEP Questionnaire 2022 on Environment Statistics will be in its 11th round of UNSD's biennial environment statistics data collection mandated by the Statistical Commission and since 2006, the Questionnaire has collected data purely on the themes of Waste and Water. Consequently, this has helped build an established time series. It will be sent to more than 160 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).

An announcement letter was sent from UNSD to the heads of the National Statistical Offices and Ministries of Environment in the countries in June 2022 encouraging them to nominate a single national focal point for the 2022 Questionnaire. The pre-filled UNSD/UNEP Questionnaire 2022 on Environment Statistics will be sent out in August 2022. UNSD plans to provide online sessions to assist countries with the completion of the UNSD/UNEP Questionnaire.

Data Collection and Dissemination on Environment Statistics
The UNSD/UNEP Questionnaire 2020 on Environment Statistics was sent out to 164 countries and territories in November 2020. Seventy-five countries/territories responded, with 62 countries submitting data and 13 countries with no data available. The response rates varied significantly for each region. The best response rates were found in Europe (75.0 %), followed by Asia (53.2%) and the Americas (51.3%). The response rate for Africa was 27.3% and for Oceania 21.4%. Among the 62 countries submitting data, 45 countries provided data for both the water and waste sections of the questionnaire, while 17 countries provided data for only one of the two sections.

The updated Environmental Indicators, in the form of indicator and time series tables are published through the UNSD Environmental Indicators. Statistics on both 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/UNEP Questionnaire on Environment Statistics, complemented with comparable statistics from OECD and Eurostat, and water resources data from FAO Aquastat. The complete data and footnotes received from each respondent country have been uploaded to the Country Files webpage. If you have any questions or comments, please send them to: envstats@un.org.

Continued dialogue on wastewater data and water questionnaires by International Agencies (UNSD, Eurostat, OECD, UN-HABITAT, WHO and FAO)

Six international organisations continue their regular dialogue with a focus on harmonising efforts to collect country-owned statistics on water (including wastewater), especially to satisfy SDG-related demands. UN member states' various case scenarios for water statistics compilation have been discussed. As a standing agenda item, information is shared among the six international organisations concerning their respective data collections and capacity development efforts.

Analysis of circumstances in the Czech Republic, other European Union member states, and Brazil revealed the importance of clearly distinguishing between point and non-point sources when considering volumes of generated wastewater (the denominator for an SDG indicator). Key to the issue is acknowledging that non-point sources are difficult to calculate, which is often the case in agriculture, and often require a modelling technique to be accurately measured. Identifying whether or not countries are including non-point sources when providing statistics on volumes of wastewater generated shall lead to better quality data concerning SDG indicator 6.3.1: Proportion of domestic and industrial wastewater flow safely treated.

A contrasting analysis is the scenario in Antigua and Barbuda, where a raw data set including information on spent wash volumes discharged from a wastewater treatment plant was discussed. Such a scenario of a member state with a relatively small population allows for a closer analysis of details of data, and a lesser need to focus on data aggregation from possibly hundreds of wastewater treatment plants as in other member states. The analysis of European Union, member states, Brazil and Antigua and Barbuda demonstrated that, no matter what the characteristics of the member state, for provision of data on SDG indicator 6.3.1, collaboration between the national statistical office and other institutions (such as a Ministry of Water, or a number of wastewater treatment plants), is paramount.

International organisations continue to collaborate with respect to timetables of data collections. The UNSD/UNEP Questionnaire on Environment Statistics (waste and water sections) is planned to be sent to 160+ UN member states in August 2022. Those member states' National Statistical Offices and Ministries of Environment were informed of this process in June 2022 and requested to inform UNSD of a focal point. FAO's AQUASTAT Questionnaire has been sent to UN member states with a deadline for responses in September 2022. OECD and Eurostat shall send the Joint OECD-Eurostat Questionnaire on the State of the Environment later in 2022 after finalising content.

UNSD NEWS:

Series of SDG Webinars for the Arab Region on selected SDG indicators under Goals 6, 11, 12 and 15 (19-21 April and 12 May 2022)

UNSD participated in two workshops on SDG indicators within goals 6 and 11 (organized by ESCWA in collaboration with UNSD, WHO and UN-HABITAT), and on SDG indicators within goals 12 and 15 (organized by ESCWA and UNSD in collaboration with UNSD and UNEP).

At the 19-21 April workshop, UNSD presented to ESCWA member states on how the UNSD/UNEP Questionnaire on Environment Statistics serves as a key input into SDG indicator 6.3.1 (Proportion of domestic and industrial wastewater safely treated) analysis. The workshop gave UNSD and ESCWA member states opportunity to engage in fine analysis of those member states' data recently made public, and to share best practice from within the region on data compilation. Methods of how to best overcome common impediments to data compilation (e.g. establishment of NSO collaboration with other institutions of government at national, state and city level, as appropriate) were discussed.

At the 12 May workshop concerning SDG indicators within Goals 12 and 15, UNSD presented on how the UNSD/ UNEP Questionnaire on Environment Statistics relates to SDG indicator 12.4.2 (Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment). The variety in data availability concerning SDG 12.4.2 of ESCWA member states was shared, and UNSD demonstrated to what extent country-owned data could be used to analyse hazardous waste generated per capita, and hazardous waste by treatment type (recycling, incineration, landfill, etc.). The value of country-owned data for SDG indicator compilation was stressed.

Dialogue with member states at these workshops revealed their keen interest in understanding metadata and definitions of the Questionnaire (especially for its forthcoming 2022 collection cycle), and the Questionnaire's relationship to both the Basel Convention and e-waste. Member states also showed their interest in understanding both key methodological guidance, and national level data collection instruments on wastewater statistics.

INTERNATIONAL NEWS:

Collecting local wastewater statistics for improving the global reporting of the SDG indicator 6.3.1, and to better manage and protect water resources in a global climate change crisis
(Contributed by Graham Alabaster, UN-Habitat, and Rick Johnston, WHO)

Global warming has profound and dramatic effects on our limited and life-critical freshwater resources, with increasing water-related extreme hazards such as floods and droughts. The number of people affected by physical water scarcity is also growing due to the continuous increase in world population and water supply demand. Increasing urbanization and climate variability are together exacerbating water and food security, whereas large-scale migration and refugee flows can exhaust local water resources for the hosting communities. Improving water resources management and protecting them from hazardous pollutants at basin and city levels, is a key challenge of the next decades that requires a better assessment of the quantities of water used by human activities, as well as of the volumes of wastewater subsequently treated and reused.

The Sustainable Development Goal (SDG) 6 which aims to ensure the availability and sustainability of water and sanitation for all by 2030, put wastewater for the first time on the global development agenda. The SDG indicator 6.3.1 provides a unique opportunity to better assess how much wastewater is generated and treated at national and regional levels. The United Nations Human Settlements Programme (UN-Habitat), the World Health Organization (WHO) and the United Nations Statistics Division (UNSD) are the co-custodian agencies for SDG indicator 6.3.1 which is monitoring the proportion of domestic and industrial wastewater flows safely treated. Total and industrial wastewater flows generated by economic activities and households, as well as the wastewater flows safely treated, are extracted from two international data collection processes (the UNSD/United Nations Environment Programme (UNEP) Questionnaire on Environment Statistics, and the Organisation for Economic Co-Operation and Development (OECD)/ Eurostat Joint Questionnaire on Inland Waters).

The global progress report on the SDG indicator 6.3.1 published in 2021[3], showed that in 2015, only 42 countries (covering 18% of the global population) reported some statistics on both wastewater generation and treatment. There is therefore to date no official information available about the proportion of the total wastewater treated for 80% of the world population, and for 95% of the world population regarding the proportion of industrial wastewater treated. However, more data were available for household wastewater, and the report found that in 2020 44% of domestic wastewater was discharged without safe treatment, based on estimates from 128 countries representing 80% of global population. The disaggregation of the flows of wastewater generated and treated also highlighted the important role and potential of water utilities in providing quantitative and detailed wastewater statistics.

For all these reasons, UN-Habitat is partnering with regional water associations and international organisations to organize five series of regional webinars in 2021/2022 (in Latin America, Caribbean, Africa, Arab Region and Asia) on some of the most critical aspects of wastewater management, including data monitoring, technology options, governance, financing, and communication. The overall objective of this initiative is to build awareness on how wastewater statistics are essential to inform management decisions and investments at the local level, and to support countries in reporting – or in improving their reporting –at national level. These webinars are opened to water utilities, line ministries, water operators and regulators, academia, civil society, private sector, and development partners, who are invited to exchange together about the current status, needs and challenges to effectively manage wastewater. The expected outcomes of this series of regional webinars are therefore also to support water utilities and national authorities to advocate for the importance of wastewater monitoring for decision-making in investment and policy development. A high-level webinar is finally organized to present the outcomes and key recommendations of the series of technical webinars to national governments and donors in each of the five regions. In parallel, some follow-up is provided at the country level to support countries in institutionalizing the report of wastewater statistics through the UNSD/UNEP Questionnaire on Environment Statistics, by connecting the line Ministries and/or the National Statistical Offices with the United Nations responsible custodian agencies for monitoring the progress and achievement of SDG indicator 6.3.1.

OECD work on environmental information, indicators and accounts
(Contributed by Myriam Linster, OECD Environment Directorate)

OECD NEWS

OECD work on information, indicators and reporting related to environment and sustainable development is steered by the OECD *Working Party on Environmental Information* (WPEI) that also provides a forum for helping countries improve their environmental information systems. The WPEI brings together delegates from OECD member, accession and partner countries (environment ministries and agencies, statistical offices), and international organisations, and is chaired by Eric de Brabanter (Luxembourg). The aim is to provide core sets of objective and reliable *data and indicators on the environment and sustainable development* to support international and national policy work, to advance the development of *accounts and integrated databases*, and to support the development and use of *new information and monitoring tools*. The *2022 meeting* will take place on 22-24 November.

New OECD Recommendation on Environmental Information and Reporting

A revised OECD Recommendation on Environmental Information and Reporting was adopted on 10 June 2022 by the OECD Council at Ministerial level. It consolidates, updates and strengthens three earlier Recommendations adopted in 1979, 1991 and 1998 respectively. The Recommendation brings together a coherent set of provisions to support OECD Members and non-Members having adhered to it in improving environmental information and reporting along the entire information chain; and in providing objective, reliable, policy-relevant and accessible information on the environment and sustainable development to the public, decision-makers and authorities.

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[3] UN Habitat and WHO, 2021. Progress on Wastewater Treatment: Global status and acceleration needs for SDG indicator 6.3.1. https://www.unwater.org/publications/progress-on-wastewater-treatment-631-2021-update/

The Recommendation and related background information are available on the online Compendium of OECD Legal Instruments:

- English: https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0471
- French: https://legalinstruments.oecd.org/fr/instruments/OECD-LEGAL-0471

The link to the Compendium can be used to share the Recommendation with relevant ministries and departments of government, as well as with non-governmental organisations and the private sector.

Harmonised environmental data and indicators for international work

Environment at a Glance platform
The OECD *"Environment at a glance"* platform provides real-time interactive online access to OECD indicators on the environment building on the OECD Core Set of Environmental Indicators – a tool to monitor environmental performance in countries and to track the course towards sustainable development. Users can download and share data, graphics, and thematic web-books with key messages on major environmental trends in areas such as climate change, biodiversity, water resources, air quality, circular economy and ocean resources. Country profiles building on a subset of core indicators are being developed (http://www.oecd.org/environment/environment-at-a-glance/).

Environmental data collection
Environmental data are collected since 1980 from OECD members, accession and partner countries via the OECD questionnaire on the state of the environment, and compiled from other international sources and from earth observation. The data collection via *questionnaire* is closely coordinated with the UNSD/UN Environment Questionnaire on Environment Statistics, and done jointly with Eurostat for common European Union Member States. This ensures a global country coverage for waste and water. The next collection will take place early October 2022.

Main databases

- Main environmental and green growth datasets are available on the **OECD statistical platform** (http://dx.doi.org/10.1787/env-data-en); some are accessible via the OECD iLibrary https://www.oecd-ilibrary.org/environment/data/oecd-environment-statistics_env-data-en.
- Data on policy instruments for the environment is available from the **OECD PINE database** that covers over 3000 policy instruments, including environmentally related taxes, fees and charges, subsidies and other instruments. The data are used to monitor the **SDG indicator 15.a.1** on revenue generated and finance mobilised from biodiversity-relevant economic instruments. See http://oe.cd/pine.

A monitoring framework and indicators on the circular economy

Work to better inform resource efficiency and circular economy policies was initiated in 2018. It currently focuses on developing a conceptual monitoring framework and indicators that reflect the life-cycle of materials and products, and the environmental, economic and social dimensions of a circular economy. Particular attention is given to the policy relevance of the indicators and their capacity to deliver a clear narrative on progress made and to be made.

The work is carried out with the assistance of an Expert group on a New Generation of Information for a Resource-Efficient and Circular Economy (RECE-XG) and jointly with the UNECE Task Force on Measuring the Circular Economy. Envisioned is a joint report. Data availability permitting, it is also envisaged to establish an integrated database on the circular economy building on available SEEA accounts combined with other data sources.

Implementing the SEEA and producing environmental-economic accounts

To support environment-economy policy integration, the OECD is actively engaged in the work of the UNCEEA and works with Eurostat, the FAO, UN Environment and UNSD to establish *global SEEA related databases* (energy, air emissions, material flows, land cover, water). Together with UNECE, it organises seminars on the implementation of the SEEA. The seventh OECD-UNECE seminar was held virtually in March 2022. Recent efforts focus on further improving *air emission accounts* and their availability through the preparation of a data collection from non-EU countries (with UNSD), methodological developments on emissions from air and maritime transport, and the development of quarterly accounts (with the IMF and Eurostat).

Work has also been initiated to better cover *expenditure on cross-cutting environmental issues*, starting with climate-related expenditure. It builds on the OECD/Eurostat collaboration in data collection (and the revision of the CEPA/CReMA classifications by Eurostat) and the experience of the OECD Paris Collaborative on Green Budgeting.

Guiding the measurement of government support for fossil fuels

The OECD *Inventory of Support Measures for Fossil Fuels* is updated on an annual basis. It covers 50 countries (OECD and G20 economies, EU Eastern Partnership (EaP) countries) and about 1 200 individual government interventions that benefit the production and consumption of fossil fuels. It includes data on government support by type of fossil fuel and by sector. The work is coordinated with UN Environment, the custodian agency for the SDG indicator 12.c.1. To enhance data quality and documentation, the validation process includes a prefilling of the SDG 12.c.1 reporting template with OECD inventory data. Interested countries have the possibility to use this pre-filling for their SDG reporting. (https://www.oecd.org/fossil-fuels/data/; https://fossilfuelsubsidytracker.org).

In 2021, the OECD established an *Informal Task Team* to help countries improve the measurement of fossil fuel subsidies (ITT-FFS) and its international harmonisation. A guidance note providing practical and methodological guidance is being prepared.

The OECD International programme on Action for Climate (IPAC)

The OECD International programme on Action for Climate (IPAC) was adopted at the OECD Ministerial Council Meeting in May 2021. The objective is to *help countries achieve their climate commitments, speed up national action and show leadership*. The IPAC supports and complements the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement for countries that are a Party. It has a strong evidence-based foundation through the use of indicators, and uses a country-specific approach supported with policy advice and the sharing of good practices (https://www.oecd.org/climate-action/ipac).
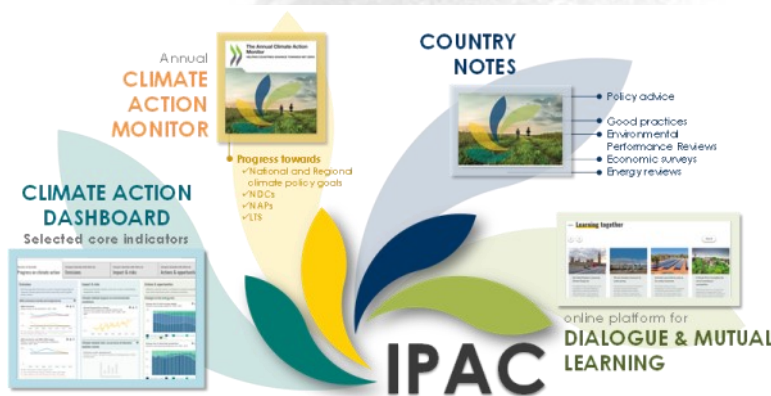
To support the IPAC, a *set of indicators monitoring climate action and progress towards climate objectives* is being developed. The indicator set builds on the conceptual frameworks and guidance elaborated for the development, measurement and use of OECD environmental and green growth indicators and cuts across the various dimensions of climate change and related policy domains. It is structured according to an adapted "pressure-state-response" model that integrates the topics covered in the assessments of the Intergovernmental Panel on Climate Change (IPCC). The set uses indicators available from the OECD's own work and work by other international organisations, including the sets of climate change related indicators proposed by the UNECE and UNSD.

A subset of core indicators have been selected to feature in the Climate Action Dashboard that that aims at providing an overview and clear narrative of climate action and progress towards climate objectives and serves public communication purposes.

To fill information gaps, work is being carried out to develop *new indicators* in areas such as exposure to climate-related hazards, the distance between greenhouse gas emissions and climate targets, and developments in countries' climate actions and policies.

INTERNATIONAL NEWS

Applying a systems approach to climate change data
(Contributed by Cathy Krüger, PARIS21)

The Partnership in Statistics for Development in the 21st Century (PARIS21) promotes the better use and production of statistics throughout the developing world. In April 2022, PARIS21 introduced the concept of a climate change data ecosystem (CCDE), applying a systems approach to climate change data. The CCDE approach proposes a collaborative framework to ensure that decision-makers, businesses and citizens have the necessary data, knowledge, and analytical capacity to develop a wide range of solutions to support effective climate action.

Countries not only need high-quality data to monitor, report and analyse climate change, but they also need data to inform and accelerate climate action and build resilience. However, their ability to bring coherence and clarity to a variety of diverse data sources and turn it into actionable information for decision-making is limited. Data sources are difficult to find, difficult to assess in terms of quality, and not easily interoperable. Further persistent resource and capacity constraints as well as outdated legal and regulatory frameworks limit the ability of government actors to use climate change data to its full extent.

Climate change data ecosystems may already exist by default, often comprising of many individuals and multi-stakeholder entities involved in producing and using climate change data. However existing CCDEs are not coordinated or intentional. Actors operate based on individual needs and requirements, data remains siloed, and resources are not brought to bear where they are needed most. By identifying national climate change data needs and priorities, the key data users and producers, and the most pressing data and capacity gaps, the CCDE approach will help countries put in place a strategy to activate coherent climate change data.

The paper "Envisioning a climate change data ecosystem - A path to co-ordinated climate action" describes PARIS21's vision of CCDEs. It describes the rationale for developing an effective CCDE, the benefits it could bring, key challenges, principles, and best practices to consider. On the basis of this, PARIS21 and its partners hope to identify and build on existing best practices, build partnerships with development organisations at the global and regional level, develop tools to assess and map national level CCDE efforts and work towards implementation in pilot countries. In particular, the United Nations Statistics Division (UNSD) and the United Nations Framework Convention on Climate Change (UNFCCC) are contributing to developing important elements of a global CCDE through the Environment Statistics Self-Assessment Tool (ESSAT). In addition to the ESSAT, UNSD has recently started to develop an ESSAT-like tool in support of the Global Set of Climate Change Statistics and Indicators to support countries strengthening the production of a broad set of climate change statistics and indicators.

In collaboration with the Economic Commission for Latin America and the Caribbean (ECLAC), PARIS21 will hold a regional meeting on 23-24 August 2022 for small island developing states in the Caribbean region to identify and further discuss the assessment tool for CCDEs for application in low resource and low capacity contexts.

UNEP News

UNEP's activities and plans in the area of Material Flow Accounting (MFA)
(Contributed by Ekaterina Poleshchuk, Programme Management Officer, UNEP)

UNEP is the custodian agency for 25 SDG indicators and the leading provider of Material Flow Accounts (MFAs) at the global level.

In 2021, UNEP significantly intensified its work on the MFA and continues this work in 2022. During this period, UNEP published the Global Manual on Economy Wide Material Flow Accounting, prepared jointly with the International Resource Panel (UNEP-IRP) and with support from Eurostat, OECD and UNSD. Also, by the end of 2021, UNEP-IRP provided estimated MFA data for 193 countries for 1970-2019. In turn, UNEP developed a questionnaire for countries to validate estimated MFA data and has begun the validation process in April 2022.

To support countries in their work on MFAs, UNEP is working together with CSIRO to develop a user-friendly data compiler. The compiler will include guidance, descriptions and definitions, standard MFA tables with detailed materials categories, and tools for calculating some categories of materials. The compiler is planned to be ready at the end of 2022.

INTERNATIONAL NEWS

Another important activity that will support countries in their work on the MFA is a UNEP project to develop online training materials covering all components of the MFA. It is planned that all online modules will be ready in 2023, after which UNEP will organize trainings for all regions.

UNEP's Global and Regional Scorecards
(Contributed by Therese El Gemayel, Programme Management Officer, UNEP)

UNEP launched in early 2022 the global and regional Scorecards for the 92 environment-related SDG indicators. The scorecards provide updated information on the status of indicators at regional and global levels and inform about the status of data availability per Goal. Data are presented by table and charts to facilitate visualization of the progress made.

Data collection for SDG Indicators 12.c.1 and 17.7.1
(Contributed by Dany Ghafari, Programme Management Officer, UNEP)

The methodology for the SDG Indicators 12.c.1 and 17.7.1 was reclassified to Tier II in 2019 and this means that the two indicators are conceptually clear, has an internationally established methodology and standards are available, but data are not regularly produced by countries. In 2021 and for the first time, UNEP launched the data drive for these two indicators directly from countries with a deadline of 31 March 2022. The deadline for 12.c.1 was extended till 30 June 2022. For indicator 12.c.1, the estimated data on Fossil Fuel Subsidies for this indicator was reported by UNEP since 2019 using existing international data sources (IEA, IMF and OECD), however for 17.7.1 the estimated data for this indicator was produced in 2022 using the ComTrade database and the trade data in Environment Sound Technology.

Capacity Development Webinars on selected Environmental SDG indicators
(Contributed jointly by Claire Potdevin, Fiscal Policy Consultant, Therese El Gemayel and Dany Ghafari, Programme Management Officers, UNEP)

Capacity Development for SDG Indicator 12.c.1, September 2021 – June 2022

The scale and impact of fossil fuel subsidies pose challenges and opportunities on the path to achieving the Goals of the 2030 Agenda for Sustainable Development (SDG). On the one hand, the use of fossil fuels and their promotion through subsidy schemes, negatively affects the ability of governments to achieve key objectives, such as reducing poverty, improving health, achieving gender equality, access to energy and the fight against climate change. At the same time, it is necessary to ensure that poor households, especially vulnerable to price increases, can obtain or maintain access to energy. The sectors of the economy that depend on this type of energy can also be affected, especially by sudden price changes.

Therefore, any successful reform requires careful analysis and adapted mitigation measures. Furthermore, reallocating fossil fuel subsidies to sectors relevant to sustainable development could boost the achievement of the SDGs. The importance of this indicator lies in knowing and sizing the existing subsidies based on reliable data, which increases transparency and informs decision-making.

Sustainable Development Goal 12 has set a target to rationalize inefficient fossil fuel subsidies that encourage wasteful consumption. Indicator 12.c.1: "Amount of fossil fuel subsidies per unit of GDP (production and consumption)" supports the compilation of national estimates of fossil fuel subsidies by National Statistical Systems. It is aimed at guiding countries on collecting data that will help support the evaluation of progress towards phasing out inefficient fossil fuel subsidies. This indicator, which measures consumer and producer fossil fuel subsidies, provides a global picture. It also enables the monitoring of national and global trends, serving as an important guide for policy development.

UNEP and the United Nations Regional Commissions have been conducting online regional training workshops for SDG 12.c.1 to support National Focal Points have a clear understanding of the methodology developed for measuring fossil fuel subsidies through SDG 12.c.1. The training includes a presentation of the questionnaire, definitions and national experiences of fossil fuel statistics, globally and in the different regions, and practical exercises for participants to apply their knowledge. The sessions were supported by numerous partners, including OECD, IEA, IISD, IMF, Eurostat and CEP. Materials and presentations of the different trainings can be found here.

The schedule for the training was carried as follow:

ECLAC: 23 to 24 September 2021, and 13 to 14 October 2021
ECA: 26 to 27 April 2022
ECE: 23 to 25 May 2022
ESCAP: 1 to 3 June 2022

Regional and sub-regional workshops on Strengthening Coordination for Measuring Progress on Responsible Consumption and Production and Policy Coherence, November 2021-January 2022

Four workshops were organized for West Africa, East Africa, South Asia and Europe, Caucasus and Central Asia, which focused on enhancing national capacities to measure SDG 12 on responsible consumption and production and strengthening policy coherence. The workshops aimed to enhance member states' statistical capacities by hosting data producers and users together to emphasize the need for cooperation and coordination, as well as improving the understanding of the efforts made to collect data. Furthermore, the workshops underlined the importance of sound data collection and dissemination including the need for data disaggregation for targeted and evidence-based policy making. [Workshops reports and technical presentations](#) are available online in Arabic, English, French and Russian.

Environmental SDG indicators for the Arab region in Collaboration with UN-ESCWA, May 2022

For the second consecutive year, the UN Economic and Social Commission for Western Asia (ESCWA), in collaboration with UNEP and United Nations Statistics Division (UNSD), carried out the second virtual capacity development webinar for Arab countries on 12 May 2022 to improve the production and dissemination of SDG indicators from official national sources. This webinar was conducted after assessing the data availability of countries data in the UNSD SDG Global database for selected Environmental SDG Indicators 12.4.1, 12.4.2 and 15.9.1b.

The main objectives were to enhance the understanding of metadata and the nature of data, to improve statistical capacities, to strengthen inter-institutional coordination on how to collect, measure and disseminate SDG indicators to increase data production, to enhance national data flow to policymakers and other users, and to share and discuss country challenges in measuring SDG indicators.

E-Waste Monitor for the Western Balkans, May 2022

Within the framework of the Global E-waste Statistics Partnership, the "Regional E-Waste Monitor for the Western Balkans" project aims to train countries to produce and collect e-waste statistics, enabling an assessment of e-waste statistics, e-waste management practices, and the e-waste legislation landscape in the Western Balkans to produce the first Regional E-waste Monitor. The participating countries of the project are Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, and Serbia.

UNEP Regional Office for Europe in collaboration with ITU Office for Europe, and Vienna Programme Office, and UNITAR-SCYCLE Programme carried a training workshop on E-Waste Statistics from 4 to 6 May 2022.

Currently, a very limited number of countries collect internationally comparable e-waste statistics. In that regard, the training workshop represents the first effort of improving e-waste data and information availability in the Western Balkans, and it is one of the main milestones of this project.

Launch of methodologies and publications
(Contributed by Therese El Gemayel, Programme Management Officer, UNEP)

Food Waste Index Report (UNEP, 2021)

UNEP in partnership with WRAP launched the Food Waste Index Report 2021. The fact that substantial amounts of food are produced but not eaten by humans has significant negative impacts: environmentally, socially and economically. Estimates suggest that 8-10% of global greenhouse gas emissions are associated with food that is not consumed. Reducing food waste at retail, food service and household level can provide multi-faceted benefits for both people and the planet. However, the true scale of food waste and its impacts have not been well understood until now. As such, the opportunities provided by food waste reduction have remained largely untapped and under-exploited. If the world wants to get serious about tackling food waste, there is a need to increase efforts to measure food and inedible parts wasted at retail and consumer level and track food waste generation in kilograms per capita at country level. Tracking progress on Sustainable Development Goals target 12.3, which aims at halving per capita global food waste at the retail and consumer levels and reducing food losses along production and supply chains, including post-harvest losses, is possible with reliable data.

Global Chemicals and Waste Indicator Review Document (UNEP, 2021)

UNEP launched in 2021 the Global Chemicals and Waste Indicator Review Document aiming to strengthen the knowledge base of chemicals and hazardous waste and enhance the capacity of selected countries to track progress towards related SDG indicators across sectors. With the purpose of enhancing the evidence base as well as the science policy interface, this review document responds to the need for better information to empower decision makers and stakeholders to act and support policy making for sound management of waste to minimize risks to public health and the environment associated with chemicals and hazardous waste. This document aims to provide a coherent methodology for measuring the SDG indicators related to municipal and food waste, hazardous waste and recycling rate. The document is published in Arabic, English and Russian.

Global biodiversity framework monitoring framework
(Contributed by Monique Chiasson and Jillian Campbell of the Secretariat of the Convention on Biological Diversity)

The resumed sessions of SBSTTA-24, SBI-3 and WG2020-3 were held in Geneva from 14 to 29 March 2022. The following text summarizes the outcomes of the respective subsidiary bodies and the Open-ended Working Group on the Post-2020 Global Biodiversity Framework, related to the development of the monitoring framework for the proposed post-2020 global biodiversity framework.

During the resumed session of SBSTTA-24, the contact group on agenda item 3 was reconvened by the SBSTTA Chair to provide specific advice on the monitoring framework, on the basis of the non-paper posted prior to the resumed meeting. The outcomes of the resumed meeting included the approval of SBSTTA recommendation 24/2 for submission to the fifteenth meeting of the Conference of the Parties (COP-15) at its resumed session. The recommendation outlines the role of the monitoring framework and includes the establishment of an *Ad Hoc* Technical Expert Group for the period between COP-15 and COP-16. A technical review of a revised non-paper on the monitoring framework was completed and is contained in Appendix 1 of the recommendation. Parties proposed additional or alternative headline indicators which should be considered in further developing the monitoring framework (contained in Appendix 2 of the recommendation).

SBSTTA-24 also mandated the Secretariat to conduct further work on the monitoring framework with Parties, including through a technical meeting. This would form the basis for a next iteration of the monitoring framework. The above-referenced technical meeting will be held in Bonn, Germany, from 29 June to 1 July 2022, and also take into account the outcomes of the fourth meeting of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework (WG2020-4), which will be held in Nairobi from 21 to 26 June 2022, including with regard to the formulation of draft goals and targets.

REGIONAL NEWS

Statistical Capacity Building for the CARICOM Region in Preparation for the Fifth Regional Environment Statistics Report
(Contributed by Faustina Wiggins, Caribbean Community Secretariat (CARICOM))

The work on environment, climate change and disaster statistics at the Caribbean Community (CARICOM) Secretariat Regional Statistics Programme (RSP) over the past year has centered on supporting statistical capacity building activities and updating the CARICOM core indicators databases for better harmonisation of data and in preparation for the **fifth round of environment data collection**. It is anticipated that these activities will result in a reduction of the existing data gaps in this area and encourage National Statistics Offices (NSOs) to disseminate these statistics.

Statistical capacity building is a key strategic driver in sustaining the production and dissemination of statistics in the CARICOM Statistical System (CSS). The RSP supported capacity-building activities over the past few years in the form of Environment and Climate Change statistics online training workshops and remote technical assistance. In November 2020, the RSP supported a remote training on the Environment Sustainable Development Goals (SDGs) Framework, conducted by the Italian National Institute of Statistics (Istat) with support from the Italian government, through the Italian Agency for Development Cooperation (AICS). This training provided an overview on the Environment SDGs Framework and addressed issues related to the development of Environment and Climate Change indicators (SDGs 2 - 6 - 7 - 11- 13 -14 -15). A second workshop was held in December 2021, to present and discuss international frameworks, processes, indicators and the need for capacity building with specific reference to Climate Change Statistics and Indicators. A final workshop is being planned for September 2022 to present on the results of the work conducted under the components of the project, including environment statistics.

 The RSP also participated in the kick-off webinar of the project "*Introduction to climate change and disaster statistics in the Caribbean*", led by the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) held remotely in March 2021 and attended by participants from eighteen (18) member countries. Further, the RSP presented on its work, under this project, at virtual national online workshops on "*Generating climate change and disasters indicators for policy decision-making*" for Suriname, Antigua and Barbuda and Saint Lucia in the first instance. These workshops were aimed at training participants to build selected environment, climate change and disasters indicators and their metadata, identifying data and capacity gaps to create an information platform on resilience for these countries and understanding better how geospatial data can enhance the use of environment, climate change and disasters data.

Remote capacity building activities are also expected to commence under the 11th European Development Fund (EDF) project, to reduce data gaps in the area of Environment and Climate Change statistics inclusive of the Environment Indicators in the framework of the 2030 Agenda for Sustainable Development.

The production of National Environment Statistics compendia in the CARICOM region has been encouraging as some member countries have to-date, produced more than five (5) publications and at least one country has recently published their first report in this area. Over the past year, RSP received Environment Statistics compendia from five (5) member countries - Grenada, Montserrat, St. Vincent and the Grenadines, Suriname and Bermuda. This has enabled the RSP to update its CARICOM Environment and Climate Change databases up to 2020 for these countries and to populate tables for the upcoming fifth CARICOM Environment statistics report. Additionally, the CARICOM Secretariat received tourism data up to 2020 from the Caribbean Tourism Organisation (CTO), as well as data from the United Nations Statistics Division/United Nations Environment Programme (UNSD/UNEP) Questionnaire on Environment Statistics for indicators under the themes, Waste and Water for countries submitting data.

The Regional Statistics Programme will continue to strengthen capacity in member countries in 2022 through capacity building activities, whether remotely or in-person in collaboration with regional and international partners. It is envisaged that the capacity building activities will result in expanded datasets to enable effective monitoring and reporting on environment and climate change policies and actions.

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

Remote technical assistance to Ecuador for the production of environment, climate change and disaster indicators (24 January to 13 February 2022)

ECLAC has delivered for the third time an online course and remote technical assistance to strengthen the capabilities of diagnosis, production, and uses of environmental climate change and disaster statistics and indicators. As a result, 86% of the participants from 10 governmental institutions have received certificates for their performance. The training used a blended methodology combining self-paced modules from the online course with weekly live webinars with the trainers. The inaugurate live session was chaired by the Sub-director of the National Institute of Statistics and Census (INEC) of Ecuador and the Director of Environmental Agricultural Statistics of the INEC of Ecuador, and the Director of the Statistics Division, ECLAC.

For further information kindly click here:
https://www.cepal.org/es/cursos/curso-linea-introduccion-estadisticas-ambientales
https://comunidades.cepal.org/estadisticas-ambientales/es/grupos/noticia/curso-en-linea-introduccion-las-estadisticas-ambientales

Workshop to generate indicators of climate change and disasters in Ecuador (22 to 24 February 2022)

The Commission has supported the production and use of key indicators and metrics in monitoring the effects of climate change, the strengthening of key metrics in monitoring the effects of climate change, and the development of the Environmental Information Systems (SIA). These activities aim to promote the environmental pillar of Agenda 2030 and thus improve policy coherence with the SAMOA Pathway, the Paris Agreement, and the Sendai Framework with the implementation of the Escazú Agreement, and the St. George's Declaration (SGD 2040). The Sub-director of the National Institute of Statistics and Censuses (INEC) and the Sub-secretary of Climate Change of the Ministry of Environment, Water and Ecological Transition (MAATE) were invited to introduce the inaugural remarks. Ninety percent of the participants received a certificate based on their performance.

For further information kindly click here:
https://www.cepal.org/es/eventos/taller-la-generacion-indicadores-cambio-climatico-desastres-ecuador
https://comunidades.cepal.org/estadisticas-ambientales/es/grupos/noticia/taller-para-la-generacion-de-indicadores-de-cambio-climatico-y-desastres-de-ecuador

Workshop to support the SDG environmental indicators building in Dominican Republic (29-30 March and 5-7 April 2022)

The Government of the Dominican Republic, via the National Statistical Office and the Ministry of Environmental and Natural Resources, sent a request to ECLAC for support in the strengthening of national capacities to compile and integrate the information needs for the Environmental SDGs. The ECLAC support consisted of an online workshop to identify, compile, and calculate some environmental indicators from the SDG agenda with some experts' presentations about the main information challenges on these indicators and sharing other countries experiences. This training was designed to promote inter-institutional collaboration as
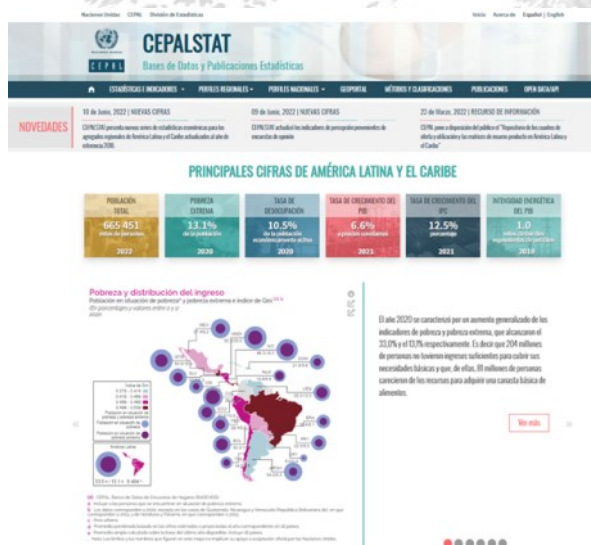
REGIONAL NEWS

an essential requirement in the construction and maintenance of a system of environmental indicators and its relevance for the SDG agenda. The opening remarks were delivered by the Director of the National Statistical Office, and Environmental Statistics Manager from the Ministry of Environment and Natural Resources. Approximately 60% of the registered participants received their certificate based on their performance.

https://comunidades.cepal.org/estadisticas-ambientales/es/grupos/noticia/construccion-de-indicadores-ambientales-ods-en-republica-dominicana
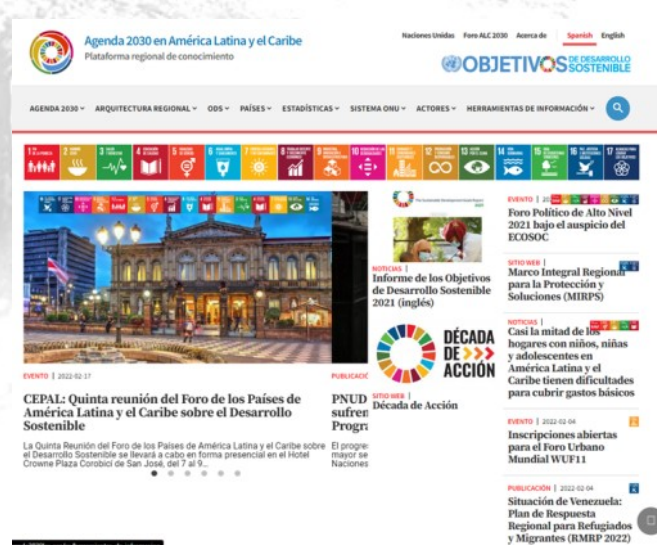https://www.cepal.org/es/cursos/taller-la-construccion-indicadores-ambientales-ods-republica-dominicana

ECLAC Regular Data Collection on Environment Statistics: CEPALSTAT, SDG Gateway and Statistical Yearbook 2021
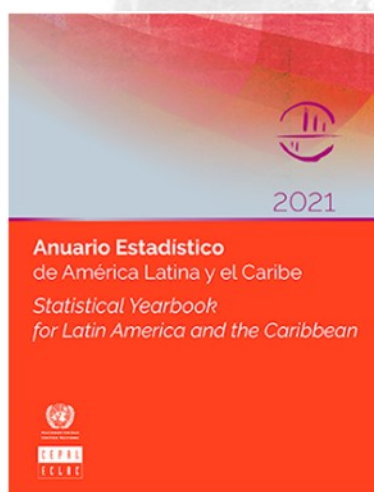
ECLAC's environment statistics team continues to carry out the compilation and validation of the environment statistics data series to update the CEPALSTAT database. It includes the most relevant issues in the Latin American and Caribbean region, in particular exports of renewable and non-renewable natural resources, and the share of primary exports in total exports. For this year it is planned to have a Climate Change Profile and a new structure for the presentation of the indicators.

https://statistics.cepal.org/portal/cepalstat/

https://agenda2030lac.org/es

https://repositorio.cepal.org/handle/11362/47827

Planned activities:

∗ DA12 project national workshops: Generating climate change and disasters indicators for policy decision-making:

- Saint Kitts and Nevis, June 2022.
- Saint Vincent and the Grenadines, June 2022.
- Dominica, July 2022.
- Belize, August 2022.
- Grenada, September 2022.
- Subregional workshop, November 2022.

∗ Online course on Spatial Dimension of Environmental Statistics for the Dominican Republic, July 2022.

∗ Twenty-first meeting of the Executive Committee of the Statistical Conference of the Americas of ECLAC, August 2022.

∗ Workshop to produce indicators of climate change and disasters in Mexico City, September 2022.

For further information kindly click here:
https://comunidades.cepal.org/estadisticas-ambientales/es/grupos/estadisticas-e-indicadores-ambientales

REGIONAL NEWS

UNECE NEWS
(Contributed by Michael Nagy and Malgorzata Cwiek, United Nations Economic Commission for Europe)

Past events and ongoing activities

Joint Statistics Canada / UNECE online seminar on measuring circular economy: The stats we need and how to get them (14 December 2021)

On 14 December 2021, the UNECE and Statistics Canada organized an online seminar on measuring circular economy (CE) titled "The stats we need and how to get them". The event was well attended, with over 150 participants representing government organizations, businesses and individuals from countries around the world. Greg Peterson, Assistant Chief Statistician responsible for the Economic Statistics Field at Statistics Canada, and Olga Algayerova, UNECE Executive Secretary, provided opening remarks which highlighted the importance of collaboration between national statistical offices and international partners in the space of CE and how it is important to establish comparable statistics. Additionally, they remarked the importance of finding ways to reduce the burden that the economy and society place on the environment when it comes to CE; policy departments have an important role. This report will outline the main conclusions of the seminar and some recommendations mentioned by the various speakers.

Some key recommendations mentioned during the seminar included a comment by an expert from the United Nations University, who mentioned there is an opportunity to use novel technology to report and meet some informational needs. For example, there is an opportunity to use block chain to track the source of materials as well as provide security for the information. There is also an opportunity to use material passports for dangerous and valuable goods, such as batteries.

An expert from Statistics Netherlands also recommended using the SEEA as the statistical method to measure CE because it is standardised and it combines physical and economic data. While supply use tables and macro-economic indicators are a good starting point, governments and policy makers are interested in specific materials and their impact on the economy.

Meeting documents, the report and links to recordings of the seminar are available at https://unece.org/info/events/event/361846.

Seventh Joint OECD/UNECE Seminar on SEEA Implementation (28, 30 and 31 March 2022)

The seventh Joint OECD/UNECE Seminar on the Implementation of the System of Environmental-Economic Accounting (SEEA) was organised as an online event on 28, 30 and 31 March 2022.

In its substantive sessions the participants discussed:

- **Current national practices and new developments in implementing SEEA**: National examples presented and discussed included Australia, Japan, South Africa and Sweden.
- **Reviews of relevant international standards:** An overview was given on how the ongoing review of the 2008 System of National Accounts may affect classifications and other international statistical standards from an environmental-economic accounting perspective.
- **Current national practices and new developments in the SEEA Ecosystem accounts:** National examples presented and discussed included Colombia, Mexico and the United States of America
- **Towards circular economy measurement:** In addition to an overview on the work of international expert groups, national experiences were presented by Denmark, Finland, Georgia and the Netherlands.

Participants recommended to continue with the organisation of "Joint OECD/UNECE Seminars on SEEA implementation" on an annual basis. The next seminar is planned to be held in Geneva on 14-15 March 2023.

As possible topics of the next seminar participants ranked the issues of ecosystem services, ecosystem condition accounts, taxes and subsidies and energy accounts with highest priority. The focus of the seminar should continue to be on the presentation of case studies and challenges related to the implementation of selected SEEA modules.

Meeting documents and links to video recording are available at https://unece.org/info/events/event/362755.

New Task Force on the Role of NSOs in Achieving National Climate Objectives

In February 2022, a new Task Force on the Role of NSOs in Achieving National Climate Objectives was established under the framework of the Conference of European Statisticians.

The Task Force will develop guidance on the role of national statistical offices (NSOs) in achieving national climate objectives by analysing concrete ways in which NSOs can contribute and showcase what the statistical system already offers to support climate action.

The Task Force is focusing on the role of NSOs in four main areas:

- Reporting under the Paris Agreement (A)
- Meeting information needs of national policymaking in terms of climate adaptation (B) and mitigation (C)
- Informing the broad public about climate-related issues (D)

The guidance document is meant to be practical, including explanations and recommendations, and a portfolio of examples of statistical products, collaboration and coordination experiences, case studies, and descriptions of institutional arrangements. Any country or organization interested in the work of the Task Force can contact the UNECE secretariat (cwiek@un.org).

Upcoming Events

10th UNECE Expert Forum for Producers and Users of Climate Change-related Statistics (29-30 September 2022)

The 10th UNECE Expert Forum for Producers and Users of Climate Change-Related Statistics will be held on 29-30 September 2022 in Geneva, Switzerland. The meeting will be in-person, but a remote connection will also be available. Simultaneous interpretation in English, French and Russian will be provided.

The main objective of the annual Expert Fora is to provide a platform for sharing experiences, discussing concepts and measurement issues, and identifying areas for practical guidance.

The 2022 Expert Forum will, among others:

- Facilitate sharing of knowledge and experience on developing new change-related statistics and improving the usefulness of the existing data
- Discuss the progress of the new UNECE Task Force on the role of national statistical offices in achieving national climate objectives
- Share and discuss practical examples of statistics and indicators related to climate change adaptation, vulnerability and resilience
- Explore innovative approaches to improving climate change-related statistics by using new data sources, increasing timeliness and frequency, and linking climate change with socioeconomic development

The concept note, registration link and more information can be found on the meeting webpage: https://unece.org/statistics/events/EFCCRS2022. Participants are kindly asked to register by 31 August 2022.

The Expert Meeting is organized by the UNECE Steering Group on Climate Change-Related Statistics, chaired by Statistics Netherlands. In preparation for the Expert Forum, the Steering Group has developed a questionnaire, "Climate Change Related-Statistics in Practice 2022" and invited all countries and organizations to share their recent achievements and plans. The collected information will be used to prepare a background document for the Expert Forum and share best practices within the expert community. The results of the last year's questionnaire are available under this link: Climate Change-Related Statistics in Practice 2021.

The Steering Group is also continuing collection of case studies in measuring adaptation. All countries and organizations are invited to submit their case studies following this template to the UNECE secretariat (cwiek@un.org).

REGIONAL NEWS

19th meeting of the Joint Task Force on Environmental Statistics and Indicators
(3-4 November 2022)
The annual meeting of the UNECE Joint Task Force on Environmental Statistics and Indicators (JTFESI) will be held in Geneva from 3-4 November 2022.

JTFESI was established jointly by the United Nations Economic Commission for Europe (ECE) Committee on Environmental Policy and the Conference of European Statisticians to support countries of Eastern and South Eastern Europe, the Caucasus and Central Asia to produce, share and use environmental information following international standards and guidelines, including the Framework for the Development of Environment Statistics (FDES) and the System of Environmental-Economic Accounting (SEEA). The aim of the work is to strengthen environmental reporting and make environmental statistics available and comparable throughout the pan-European region in the long term.

The main issues discussed at the meeting include:

- **Progress in the review of the Guidelines for the Application of Environmental Indicators:** The Joint Task Force started this review procedure in 2019 with the aim to support countries in their efforts to better inform global policies with environment statistics and indicators, link them with statistical frameworks (such as FDES) and increase the user-friendliness of the metadata. The UNECE secretariat will present latest developments related to the completion of the revision of the Guidelines for the Application of Environmental Indicators for discussion and approval.
- **Ongoing and planned capacity development activities:** The secretariat, UNEP and other international and regional organizations, including the European Environment Agency and OECD, will report on ongoing and planned capacity development activities related to environmental statistics and indicators, the Shared Environmental Information System and Sustainable Development Goal indicators. The secretariat and Environment Agency Austria will provide an update on a European Union-funded project "EU4 Environment Water Resources and Environmental Data" and other capacity-development activities. In addition, members of the Joint Task Force will be invited to present national capacity development activities and identify concrete capacity development needs.
- **Data needs, statistics and indicators to manage environment-related human health issues:** International and regional organizations and country representatives will be invited to share their experience in producing environment- and health-related data and indicators and their use for policymaking.

The agenda, presentations and background documents of the meeting will be made available at https://unece.org/info/events/event/367607.

Updates on EEA environmental indicators
(Contributed by Roberta Pignatelli, European Environment Agency)

In the first six months of 2022 the EEA published 18 environmental indicators, including a new one published on 1st June, Water abstraction by source and economic sector in Europe.

In Europe, the EU Water Framework Directive (WFD) aims to protect the EU's water resources by promoting efficient water use and minimising abstraction. The indicator shows that, from 2000 to 2019, the total volume of water abstracted from surface water and groundwater declined by 15%, with the relative contribution of groundwater to the total volume abstracted increasing from 19% to 23%. Despite the notable achievements made in decreasing overall water abstraction in the EU in the last 20 years, uncertainty over seasonal water availability is increasing. To manage the risks associated with this, further efforts to increase water use efficiency and adapt to climate change are needed to meet the overall objectives of the WFD and the European Green Deal.
Explore water abstraction by source at the country level..

The other published indicators relate to different environmental themes, namely agriculture (Drought impact on ecosystems in Europe), air pollution (Industrial pollutant releases to air in Europe), biodiversity (Nationally designated terrestrial protected areas in Europe; Natura 2000 sites designated under the EU Habitats and Birds Directives), climate change adaptation (Economic losses from climate-related extremes in Europe; European sea surface temperature), climate change mitigation (Atmospheric greenhouse gas concentrations; Greenhouse gas emissions from land use, land-use change and forestry in Europe), energy (Primary and final energy consumption in Europe; Share of energy consumption from renewable sources in Europe; Emissions and energy use in large combustion plants in Europe), land use (Imperviousness and imperviousness change in Europe), transport (Use of renewable energy for transport in Europe), and water and marine environment (Industrial pollutant releases to water in Europe; Nutrients in freshwater in Europe; Oxygen consuming substances in European rivers; Use of freshwater resources in Europe).

REGIONAL NEWS

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As always, the EEA focuses the production and updating of indicators on those most useful to support the European policy making: twelve of these indicators, in fact, are already included in the mechanisms to monitor the EU SDGs at European level (EU SDGs) and / or the EU's 8th Environment Action Programme

The balance between policy relevance and statistical quality constitutes an ongoing challenge, which can only be overcome with the current, increasing cooperation between the different EU institutions with each other and with the respective networks of the member states that interact with them.

All EEA indicators are available at: https://www.eea.europa.eu/ims

Recent Eurostat activities
(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 six 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 on 20 May 2022, including the full monitoring report on progress towards the SDGs in the EU context - edition 2022, the brochure SDG at a glance, the digital publication 'SDGs & me' and visualisation tools to compare countries. The 2022 report includes a special chapter about Covid and another one about spillovers and footprints. This year for the first time the SDG report is published together with the macro economic package 'European Semester', which reinforces the SDGs mainstreaming into the economic policymaking.

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. 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

The main entry points for Eurostat environmental statistics are the dedicated sections in its website for environment, waste statistics and climate change related statistics. Eurostat also maintains the European Commission monitoring framework for the circular economy in this dedicated website.

The results of the 2020 OECD/Eurostat Joint Questionnaire on municipal waste are published in this online article. The data collections on waste streams (packaging waste, waste electric and electronic equipment, end of life vehicles and batteries) were completed in September-October 2021 and the data are published here. The 2022 data collections have been launched. Also updated were the online articles on electrical and electronic equipment, waste packaging and batteries. The results of the 2020 data collection on waste statistics according to Regulation (EC) 2150/2002 are published here (data for 2018) and in the online articles here and here.

The results of the data collection on inland waters, including regional information, are published in this online article. 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. An overview of data published on forestry and forests by Eurostat can be accessed on this link.

SEEA environmental accounts

Eurostat runs data collections of SEEA-based environmental accounts, and the results are published as follows: air emission accounts (2020 data), material flow accounts (2021 data), environmental taxes (2020 data), environmental sector (2019 data), environmental protection expenditure (2019 data) and physical energy flow accounts (2020 data). All these data collections are annual and mandatory for EU Member States. Since November 2021 Eurostat also produces quarterly estimates of greenhouse gases based on SEEA, and with a timeliness of 4 ½ months. Eurostat also publishes air emission footprints and two datasets with material footprints (aggregate and detailed). Besides the articles linked above, and other articles accessible from them, Eurostat publishes the data results in the Eurostat online database, as well as other material (see dedicated section on environmental statistics).

Eurostat published the final report of the project integrated system of natural capital and ecosystem series accounting (KIP INCA) in collaboration with other EU partners. The report introduces ecosystem accounting and presents ecosystem extent accounts, initial ecosystem condition accounts and ecosystem services accounts for the European Union. The report shows practical examples of possible uses of ecosystem services accounts and existing policy applications. The full list of published INCA output can be found in the methodology section under 'Ecosystem accounts'. Eurostat is preparing legislation to make compilation of ecosystem accounts mandatory in the European Union.

Eurostat also facilitated training courses on environmental statistics and SEEA for European compilers. Material from past courses is available here. Because of the coronavirus lockdown and travel restrictions many training courses are being transformed into online courses. Recent and upcoming courses are: waste statistics (18-19 May), Physical environmental accounts (30 May-2 June), Monetary environmental accounts (7-8 June), SDG indicators (14-16 September), Input-output modelling (also used for environmental footprints) (18-20 October), ecosystem accounts (8-10 October). Those courses are free of charge and also open to participants from outside the European Union, provided free places are available.

ESCAP News
(Contributed by the Statistical Institute for Asia and the Pacific, ESCAP)

SIAP and UNSD launch self-paced course on SEEA Ecosystem Accounting

The UN Statistics Division (UNSD) and the UN Statistical Institute for Asia and the Pacific (UNSIAP) have launched a new e-learning course on SEEA Ecosystem Accounting (SEEA EA). The course which was developed under the overall guidance of the UN Committee of Experts on Environmental Economic Accounting (UNCEEA), introduces the SEEA EA, the recently adopted international statistical standard for organizing data about ecosystems, measuring ecosystem services, tracking changes in ecosystem assets, and linking this information to economic and other human activities.

The course contains eight interactive modules as well as nine recorded webinars. Topics covered include ecosystem extent, ecosystem condition, ecosystem services, valuation of ecosystem services and biophysical modelling. In this course, participants will also learn about how the ecosystem accounts can be used to compile indicators and develop policy scenario analysis. The self-paced course is now available at no cost on the UNSD and SIAP e-learning platforms. Staff of national statistical offices, line ministries, other agencies working on issues related to the environment and those interested in learning more about the SEEA Ecosystem Accounting are welcome to enroll in the course. (https://siap-elearning.org/course/index.php?categoryid=8)

As part of the launch of the course, a facilitated training was held April-June 2022. Over 750 participants from over 80 countries took part in the course. Highlights of the facilitated course were the nine live webinars where experts from national statistical offices, international organizations and academia shared their expertise on various ecosystem accounting topics. During the webinars, participants also had a chance to raise questions and interact with the experts during the Q&A sessions. Recordings of the webinars are part of the self-paced course and can be viewed by enrolling in the self-paced course (https://siap-elearning.org/course/index.php?categoryid=8). The course will also be translated into other UN official languages and made available on the UNSD and SIAP e-learning platforms.

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SEEA courses at SIAP in 2022
SIAP continues to support countries as they scale up the implementation of SEEA. In the first half of the year, over 500 participants took part in courses on climate change and material flow accounts. During the second half of 2022, SIAP will hold a facilitated course on SEEA Central Framework (1 August-9 September) and a topical SEEA course during the 4th quarter. Please visit the SIAP's e-learning platform (https://siap-elearning.org/) where you can find more information on the upcoming facilitated courses. Many self-paced courses on the SEEA, including courses relevant to climate change, are also available on the SIAP e-learning platform; all SIAP courses are free and open to all.

ESCAP STATS CAFÉ "SEEA and Climate Change: How and Why"
ESCAP organized a webinar on 13 June focusing on using the System of Environmental Economic Accounting (SEEA) to inform climate change issues. Representatives from NSOs in India, Indonesia and New Zealand shared their experience in compiling energy and air emission accounts and ecosystem accounts and how these accounts are used to compile indicators and inform climate change-related policies. Presenters highlighted the need for integrating economic, environmental and climate data based on the SEEA as this allows for a more complete picture of the nexus between economic activities, the environment, and climate change.

A recording of the webinar can be viewed at the following website: https://www.unescap.org/events/2022/asia-pacific-stats-cafe-seea-climate-change-why-and-how

COUNTRY NEWS

Antigua and Barbuda providing online access to environmental information
(Contributed by Jason P. Williams, Department of Environment, Antigua and Barbuda)

The Antigua and Barbuda's Department of Environment (DOE) is aware of the challenges faced by the public to access up-to-date, reliable and accurate data and information on the environment. To ease this burden, the DOE recently launched an Environmental Information System (EIS) comprised of the National Environmental Data & Information System – NEIS (https://neis.environment.gov.ag/) and the Natural Resources Inventory - NRI (https://nri.environment.gov.ag/). The EIS was created under the Global Environment Facility (GEF) funded project entitled, *Monitoring and Assessment of Multilateral Environmental Agreement (MEAs) implementation and environmental trends in Antigua and Barbuda,* known locally as the Cross-Cutting Capacity Development (CCCD) project.

The CCCD project aims at strengthening capacities for the effective management of environmental data and information to allow Antigua and Barbuda to better report to the MEAs. The Department frequently receives request for data and information on the environment such as, locations/status of protected areas, quantity of greenhouse gas emissions attributed to the country, types of ecosystems present in the country, etc. Before the creation of the EIS, these requests had to be channelled through the Department but now all Antiguans and Barbudans have online access to these data and information.

The main objective of the NEIS is to produce data and information that will greatly facilitate the low-cost and efficient preparation of high-quality national reports to the Rio Conventions as well as the preparation of information reports for parliamentarians and other policymakers. While the objective of the NRI was built to serve as a repository of data and information on the natural resources of Antigua and Barbuda that can be used to inform the environmental impact assessment and other relevant processes and is readily available to the public. These two systems deliver on the mandate of the DOE to collect, store, validate, analyze and manage data in order to ensure its timeliness, reliability and accessibility for its users. Users include the government, NGOs, general public, private sector, research and academic institutions etc.

The Department is also committed to managing two additional EIS namely, the Climate Change Risk Maps (https://climateriskmap.environment.gov.ag/) and the Environment Registry (still in development). The Registry will be an online platform where the public can learn more about the different types of climate change data and information available on the twin island state. There will be a series of trainings leading up to the launch of the Environment Registry. More information on the work that the DOE is carrying out to make environmental information more accessible can be found at the website: https://environment.gov.ag/en/.

![COUNTRY NEWS]

Production of statistics on climate change in Burkina Faso
(Contributed by Jean-Claude Kabore, Ministry of the Environment, Energy, Water and Sanitation)

Burkina Faso participated in the Global Consultation on the Global Set of Statistics and Indicators on Climate Change. With regard to the quality of its content, Burkina Faso welcomed it favourably at the 53rd session of the United Nations Statistical Commission and plans to compile the Global Set based on its experience in statistical production and on statistics and indicators already available.

Indeed, Burkina Faso has solid experience in the production of environment statistics. Since 2010, the Ministry of the Environment, Energy, Water and Sanitation (MEEEA) has been developing a yearbook on environment statistics based on the Framework for the Development of Environment Statistics (FDES) 2013 and the environmental dashboard based on the DPSIR model. These statistical publications and other platforms contain climate change statistics. These publications developed in collaboration with several institutions producing environment statistics take into account statistics on natural disasters, environmental health, energy, etc.

The results of greenhouse gas (GHG) inventories are posted on the Measurement, Reporting and Verification (MRV) platform. These inventories are carried out by Global Green Growth Institute (GGGI-Burkina) in collaboration with the MEEEA, the National Institute of Statistics and Demography (INSD) and other institutions. In addition, the National Observatory for Sustainable Development (ONDD) platform publishes statistics on land use and the area of land degraded or affected by bush fires. In 2020, the MEEEA signed an agreement with the Sahara and Sahel Observatory (OSS) as part of the "Regional Cooperation for new Ecosystem Natural Capital Accounting Indicators in Africa COPERNICEA" project. This agreement aims to compile pilot ecosystem accounts by 2024.

The field of production of climate change statistics will also expand with the second General Census of Agriculture (RGA II) underway and piloted by the Ministry in charge of Agriculture. The RGA II integrates the issue of climate change and should provide current results on food security, the impact of climate change on agricultural production by 2023.

The challenge of the MEEEA in terms of statistical production concerns the operationalization of the National Strategy for the Development of Environment Statistics (SDSE) which provides for the strengthening of inter-institutional collaboration. This collaboration is essential to take advantage of all the climate change statistics produced within different institutions and platforms. The MEEEA is the result of the recent merger of the Ministry in charge of the environment with those of energy, water and sanitation; the SDSE needs to be revised to extend its scope of action to meet the new challenges as a result of this merger.

The MEEEA welcomes any support from technical and financial partners for the production of statistics covering the field of the environment, climate change and statistics in general falling within the remit of the MEEEA.

Statistical productions: http://cns.bf/spip.php?id_rubrique=63&page=publdetails
GHG inventories: https://www.mrv-burkina.bf/donnees-d- inventories.html
ONDD indicators: http://www.onedd-burkina.info/

Environmental Statistics and Environmental Accounting in China
(Contributed by the National Bureau of Statistics of China)

Environment Statistics in China started in the 1970s. In 1979, the Office of the Leading Group for Environmental Protection under the State Council organized a survey on basic environmental conditions, which covered more than 3,500 large and medium-sized enterprises nationwide. In 1980, the above-mentioned Leading Group and the National Bureau of Statistics of China (NBS) jointly formulated the statistical reporting system on environmental protection.

In 2000, the NBS compiled and published the comprehensive Environment Statistics publication entitled *China Environmental Statistics 2000* for the first time. In 2004, drawing on international statistical standards such as the UN Framework for the Development of Environment Statistics (FDES), and fully considering China's national conditions, the NBS and the State Environmental Protection Administration jointly formulated *the Comprehensive Statistical*

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Reporting System on Environment (For Trial Implementation). After continuous revision and improvement, the current *Comprehensive Statistical Reporting System on Resources and Environment* includes more than 800 indicators, covering freshwater environment, marine environment, atmospheric environment, solid waste, natural ecology, land use, forestry, natural disasters, environmental investment, urban environment, rural environment and others. Since 2004, the NBS, in cooperation with the Ministry of Ecology and Environment and other relevant departments have jointly compiled and published the *China Statistical Yearbook on Environment* annually, comprehensively reflecting the state of China's resources and environment to meet the needs of users in all respects. In addition, the NBS has also released comprehensive statistical data on ecological resources and environment to the public through a variety of channels including the *China Statistical Yearbook* (http://www.stats.gov.cn/tjsj/ndsj/2021/indexeh.htm) and the National Statistical Database (https://data.stats.gov.cn/english/easyquery.htm?Cn=C01).

In 2013, the NBS strengthened the statistical work for addressing climate change by establishing the *Departmental Statistical Reporting System for Addressing Climate Change*. Statistical indicators on climate change response and indicators of energy activity, industrial process, agriculture, land-use change and forestry, waste treatment and other fields related to the compilation of greenhouse gases emission inventory were collected from more than a dozen relevant departments including the Ministry of Ecology and Environment, the Ministry of Natural Resources, the Ministry of Agriculture and Rural Affairs and China Meteorological Administration. In 2020, the NBS and the Ministry of Ecology and Environment jointly revised the *Departmental Statistical reporting system for Addressing Climate Change* to better reflect the current situation and progress of climate change response in China, and effectively support the formulation and evaluation of climate change policies and the compilation of national communication on climate change. In the future, we will further improve China's statistical indicators system on climate change response with reference to the *Global Set of Climate Change Statistics and Indicators[4]*, so as to better reflect the status and impact of climate change as well as China's efforts and achievements on addressing climate change.

In terms of environmental accounting, the work carried out in China mainly includes exploring the compilation of natural resources balance sheet and monetary accounting of ecosystem products. From 2015 to 2018, the NBS carried out two rounds of pilot work on compiling natural resources balance sheet in some regions. On the basis of the pilots, the NBS and relevant departments jointly formulated the *Compilation System of Natural Resources Balance Sheet (For Trial Implementation)*, and accordingly carried out the trial compilation of the national natural resources balance sheet in physical terms from 2015 to 2019 and the same trial compilation at provincial level from 2016 to 2019. In 2022, based on a systematic review of theories and practices of monetary accounting of ecosystem products both at home and abroad and China's national conditions, the National Development and Reform Commission and the NBS jointly formulated and issued the *Norms for Gross Ecosystem Product Accounting (For Trial Implementation)*.

Cooperation from ECLAC to INEC, through virtual technical assistance
(Directorate of Agricultural and Environmental Statistics, National Institute of Statistics and Censuses, Ecuador)

The National Institute of Statistics and Censuses (INEC), with the purpose of strengthening the production of environmental indicators, by the Directorate of Agricultural and Environmental Statistics, has carried out the pertinent steps to have the technical assistance of the Economic Commission for Latin America and the Caribbean (ECLAC), for the development and generation of statistics on Climate Change and Disasters. In 2020, the first approach to ECLAC was made, emphasizing INEC's interest in having statistical tools to monitor the effects of climate change, which was evaluated and accepted in 2021, launching a work agenda that included the execution of training and the generation of climate change indicators.

With the support of the Environmental Statistics Unit of ECLAC, different public sector entities were invited to the course "Introduction to Environmental Statistics", aimed at the construction, maintenance and updating of environmental indicators. The event was held from 23 January to 13 February 2022, through ECLAC's online training platform Moodle, in addition to four webinars to reinforce knowledge, which were held previously. The event was attended by representatives of the National Institute of Meteorology and Hydrology; Oceanographic and Antarctic Institute of the Navy; Ministry of Environment, Water and Ecological Transition; Secretary of the Environment of the Municipality of the Metropolitan District of Quito; National Risk and Emergency Management Service; National Council of Competences; Water Regulation and Control Agency; Rumiñahui Public Cleansing Company; and Consortium of Provincial Autonomous Governments of Ecuador.

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[4] https://unstats.un.org/unsd/statcom/53rd-session/documents/2022-17-ClimateChangeStats-E.pdf

COUNTRY NEWS

Complementary to the Introduction to the Environmental Statistics course, the "Capacity Development Workshop: Construction of Environmental, Climate Change and Disaster Indicators" was held, with interaction and synergies between institutions that generate environmental information. In order to have working material for the workshop, the Directorate communicated to the experts from ECLAC a list of variables and indicators available in INEC's Integrated Environmental Information System (Environmental Data), which are organized using the structure of the Framework for the Development of Environment Statistics (FDES). Using these variables, the Environmental Statistics Unit of ECLAC developed a proposal for potential national indicators to be developed and aligned with the indicators from UNSD's Global Set of Climate Change Statistics and Indicators.

The workshop was held virtually from 22 to 24 February 2022, with the participation of delegates from institutions responsible for the topics of hydro-meteorology, energy, risks, environment and climate change; together with guidance and tutoring from the ECLAC experts. Six indicators were worked on, generating methodological files and the respective calculation of the indicators:

- Energy intensity measured in terms of primary energy and GDP.
- Number of deaths, missing persons and persons directly affected attributed to disasters per 100,000 inhabitants.
- Frequency of hazardous events and disasters.
- Municipal waste collected per capita.
- Total greenhouse gas emissions per year.
- Forest area in proportion to the total area.

Measurement of Disaster Risk Reduction Management in Autonomous Decentralized Municipal Governments (GADM)

(Directorate of Agricultural and Environmental Statistics, National Institute of Statistics and Censuses, Ecuador)

The National Institute of Statistics and Censuses (INEC) of Ecuador, in its desire to make visible and improve national statistical production in 2010, created the Directorate of Agricultural and Environmental Statistics. Since its inception, it has been working on the generation and compilation of environmental statistics, for which the Framework for the Development of Environmental Statistics (FDES) developed by the United Nations was adopted as a conceptual and methodological reference. This Framework constituted a guide to structure and present environmental statistics according to the six proposed components.

One of these components is related to Extreme Events and Disasters, in which statistical data was collected on the occurrence of disasters, number of people killed, affected, etc. The data was collected by the National Risk and Emergency Management Service. Methodological files were generated in collaboration with this institution for the indicators that measure the objectives of the Sendai Framework, where Ecuador is a signatory country. However, in this work, the National Service together with the INEC showed that there is a significant gap of information related to the activities on disaster risk reduction at municipal level. For this reason, the Service developed the ***"Guidelines for the Governance of Disaster Risk in Municipal and Metropolitan Decentralized Autonomous Governments".***

This document constitutes a guide to progressively strengthen the governance of disaster risk activities in the Autonomous Decentralized Municipal Governments, taking into account their different capacities. To assess the use of the guidelines, the above-mentioned Service together with the INEC, elaborated an evaluation form which contains questions related to the implementation of the guidelines. The form is addressed to the autonomous governments and consists of four sections that cover the guidelines. Each question has a scale of five levels that range from a basic implementation to a high level of execution.

This form will be applied through the National Municipal Information System which belongs to the Association of Ecuadorian Municipalities. This system is known and accepted by the municipalities, as an instrument for collecting statistical information. For seven years the INEC, together with the above association, collected statistical data on the management of solid waste and drinking water and sewage, and a new section called Disaster Risks would be added where the requested information could be entered. With the data obtained, an Index of Disaster Risk Management will be created, which will report the progress of the incorporation of risk management in municipal processes.

The collection of information on this topic will constitute a new statistical operation which will follow all the steps of the statistical production model. It will have methodological documents, filling manuals, validation instruments and publication products. In this way, importance and recognition will be given to disaster risk reduction management statistics and it will be possible to cover the information gaps that currently exist in this area.

COUNTRY NEWS

Climate Change Statistics in New Zealand
(Contributed by Statistics New Zealand)

Greenhouse gas emissions accounting
Stats NZ produce a series of greenhouse gas (GHG) emissions accounts, compiled under the System of Environmental-Economic Accounting Central Framework (SEEA CF). Development of the accounts began in 2018 as a recommencement of the SEEA program, intended to support government policy by communicating the value of natural capital and to better the understanding of New Zealand's transition to a low emissions economy. As interest in SEEA GHG reporting has increased, the suite of accounts has grown to include production-based emissions on an annual, regional, and quarterly basis, and consumption-based emissions on an annual basis. Coverage of the reporting includes estimates for industries and households by four main gas types.

The SEEA GHG emissions accounts build upon New Zealand's Greenhouse Gas Inventory, which is the country's official measure of emissions, produced annually by the Ministry for the Environment. Under the SEEA framework, sector-based emissions as defined in the Inventory are converted to emissions by industry as defined by the Australian and New Zealand Standard Industrial Classification 2006. The accounts record emissions produced by New Zealand's industry and household sectors, regardless of where they occur (i.e. based on the residence of the emitter).

Quarterly production-based emissions are the most recent addition to the suite of SEEA accounts and have been in development over the last year and a half, after identifying customer need for more timely emissions data. Quarterly estimates are calculated using the GHG annual production estimates and activity indicators (e.g. energy statistics, card transaction data, transport data) to project emission trends beyond the latest Inventory year. Using this indicator method, emissions can be estimated up to six months behind current time, allowing SEEA-derived emissions to be reported up to 18 months ahead of the GHG Inventory. This allows closer monitoring of emissions volumes, economic-environmental decoupling, and comparisons of emissions behaviour to economic recovery following disruptive events such as COVID-19. The new quarterly estimates are also being used to improve the timeliness of Stats NZ's regional emissions series.

While in development, the quarterly account has been released under the proviso of 'experimental'. Following international peer review and stakeholder feedback, it will be released as an official statistic for the first time on 20th July 2022. This recognises that the statistics are considered by Stats NZ to have methods that are robust, accurate and fit for purpose. Currently, we are aware of only two other National Statistics Offices (Statistics Sweden and Statistics Netherlands (CBS) and the IMF who routinely produce quarterly SEEA greenhouse gas emissions estimates.

See the previous release of the quarterly account here.
Greenhouse gas emissions (industry and household): September 2021 quarter

Environmental Reporting
Alongside SEEA-based accounts, Stats NZ also produces state of the environment reports. See the latest Atmosphere and Climate release, as well as the accompanying environmental indicators, here.
New Zealand's environmental reporting series: Our atmosphere and climate 2020

Future Developments
Further development and implementation of the UN's Global Set of Climate Change Statistics and Indicators will be considered within the Government's Data Investment Plan Data Investment Plan - data.govt.nz. as it continues to be developed and implemented. Stats NZ is leading that process, and Climate Change has been identified as one of 30 investment opportunities.

COUNTRY NEWS

Environmental and Related Statistics in the State of Palestine
(Contributed by by the Palestinian Central Bureau of Statistics)

The Palestinian Central Bureau of Statistics (PCBS) was established in 1993 by virtue of a decree by the President of the Palestine Liberation Organization (PLO). PCBS assumed the task of establishing a National Statistical System (NSS) in Palestine to provide official statistics on demographic, social, economic and environmental conditions with credibility, impartiality and complete independence in accordance with the latest international recommendations and standards to serve both citizens and different institutions.

Environment Statistics Department (ENSD) is one of the most vital departments in PCBS, located within the General Directorate of Area Statistics (ASD), side by side with other departments such as Natural Resources Statistics Department, Agriculture Statistics Department, Tourism Statistics Department, Housing and Housing Conditions Statistics Department.

ENSD was established in 1997, and it is committed to publishing data in the field of environment with high quality in line with its main vision.

Environment statistics are derived from various data sources represented by surveys in different fields (household, economy, education, medical and health care), in addition to data obtained from the administrative records of various sources and stakeholders.

In light of the accelerating attention in the environment aspects all over the world, ENSD has developed over the years in various fields related to environment, such as; environmental expenditure accounts, environment accounts, biodiversity and emission calculations.

PCBS participated in national and international conferences, meetings, global consultations associated with various environmental topics; i.e. climate change, biodiversity, Sustainable Development Goals. Also, PCBS received technical advisory services in environmental statistics, environmental accounts and energy to harmonize data associated with energy, water and land use.

PCBS is a member of the National Committee for Climate Change, and it is the official body approved for calculating and estimating emissions and is responsible for providing the National Coordinator for Climate Change (Environmental Quality Authority) with statistics related to this part to be included in the national communication reports and biennial reports and all reports submitted to the UNFCCC.

PCBS participated in the global consultation on the Global Set of Climate Change Statistics and Indicators through documents received from the United Nations Statistics Division (UNSD) and is currently working on the implementation of the Global Set since its adoption at the 53rd session of the Statistical Commission in March 2022. PCBS is also an active member of the UNSD Expert Group on Environment Statistics.

PCBS has adopted the dissemination of its reports and statistics to be available in different formats (PDF, WORD and EXCEL) on its official website: (www.pcbs.gov.ps)

Standards for Official Statistics on Climate-Health Interactions
(Contributed by Megan Green and Hallie Thompson, Office for National Statistics, United Kingdom)

The single greatest threat to human health is Climate Change. With temperatures rising, air quality declining, outbreaks of disease increasing and natural disasters becoming more frequent, the effect of climate change on human health is a serious and growing concern. The impact of this is felt disproportionately by the most vulnerable and disadvantaged groups, who currently suffer the highest mortalities and other health effects from climate related risk.

So, how can we help to increase action taken to reduce the impact of climate change? There is currently a lack of harmonised approaches and statistical methodology available that allows countries to consistently and easily produce official statistics to evidence the impact of climate change on health, especially in low/middle income countries where there may be less resource. The topic was included in the Global Set of Climate Change Statistics and Indicators with several suggestions; however, these require considerable methodological reviews and development to achieve an internationally standardized method. Without reliable statistical evidence, it is hard to communicate issues and implement new policies for national and global climate change action.

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Wellcome, a global charitable foundation, is funding the Office for National Statistics (ONS) UK to develop Standards for Official Statistics on Climate-Health Interactions. This will enable countries to develop reporting on climate change through consistent and high-quality metrics at a national and local level. There are three main aims of this project:

⇒ Develop a transparent and globally generalisable framework for official statistics on climate change and health containing a series of appliable metrics that link to the Global Set and contribute to its metadata
⇒ Develop a global reporting and knowledge-sharing platform and open-source toolset to facilitate high quality research and official statistics in line with the agreed framework
⇒ Explore statistical methods to provide estimates of climate-related health risk using real world data sources, including novel and big data, and modelling local impacts

The ONS will be supported by expert partners in two low/middle income based national statistics agencies, the Cochrane Working group and the UKHSA (UK Health Security Agency). Alongside this we welcome a wide range of climate change experts and international producers of official statistics to contribute to this project over the next four years. This engagement will be crucial to ensure that the standards created will be internationally adopted.

Link to Wellcome: [Standardising health and climate metrics to drive action | Wellcome](#)
For further information please contact: Climate.Health@ons.gov.uk

FORTHCOMING EVENTS

Ninth meeting of the Expert Group on Environment Statistics (virtual) (25-28 October 2022)

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