Tenth Meeting of the Expert Group on Environment Statistics (Virtual)

3, 4, 6 and 10 October 2023

Final Report

1. The Tenth Meeting of the Expert Group on Environment Statistics (EGES), organized by the United Nations Statistics Division (UNSD), was held virtually on 3, 4, 6 and 10 October 2023 during approximately three and a half-hour sessions for each of the days. Approximately 131 experts from 34 countries[1] and agencies[2] and five independent experts attended the meeting.

2. The meeting was organized into five sessions as follows:
   Opening Session
   Session 1: Climate Change Statistics and Indicators
   Session 2: Environment Statistics Data Collection
   Session 3: Environment Statistics Toolbox
   Session 4: Capacity Development in Environment Statistics and Climate Change Statistics
   Session 5: Discussion of Priorities and Conclusions

3. The discussions were based on the agenda with corresponding presentations prepared by the EGES and UNSD. Short descriptions of the presentations and the main discussion points are summarized below. The meeting conclusions and recommended actions from Session Five are contained in Annex I. The agenda of the meeting is attached as Annex II, and the list of participants is attached as Annex III.

4. Ms. Reena Shah, Chief, Environment Statistics Section, UNSD, expressed her appreciation to all experts who have contributed to the work of the EGES and welcomed new experts to the meeting.

5. Mr. Stefan Schweinfest, Director, UNSD, opened the EGES and delivered a welcome speech. A warm welcome was given to all colleagues present, and gratitude was expressed to United Nations Member States who have collaborated in kind with UNSD on the development of the

[1] Armenia, Bangladesh, Belize, Botswana, Brazil, Cabo Verde, Czech Republic, Estonia, Finland, Grenada, Hungary, India, Ireland, Italy, Jamaica, Jordan, Kyrgyzstan, Luxembourg, Mauritius, Mexico, Nepal, Netherlands, Philippines, Russian Federation, Slovenia, Spain, State of Palestine, Suriname, Sweden, Uganda, United Arab Emirates, United Kingdom, United Republic of Tanzania, and Zimbabwe.

[2] African Development Bank (AfDB), Caribbean Community (CARICOM) Secretariat, Common Market for Eastern and Southern Africa (COMESA), Eurostat, European Environment Agency (EEA), Food and Agriculture Organization of the United Nations (FAO), Gulf Cooperation Council (GCC-Stat) Statistical Center, Global Partnership for Sustainable Development Data (GPSDD), Organization for Economic Co-operation and Development (OECD), Pacific Community (SPC), PARIS21, United Nations Environment Programme (UNEP), United Nations Office for Disaster Risk Reduction (UNDRR), United Nations Framework Convention on Climate Change (UNFCCC), UN-Habitat, United Nations Institute for Training and Research (UNITAR), World Health Organization (WHO), Economic and Social Commission for Asia and the Pacific (ESCAP), Economic Commission for Europe (ECE), Economic Commission for Latin America and the Caribbean (ECLAC), Economic and Social Commission for Western Asia (ESCWA), UN Women and the United Nations Statistics Division (UNSD).

Global Set of Climate Change Statistics and Indicators (Global Set)[3]. He further observed that since the Global Set had been adopted at the UN Statistical Commission in 2022, countries are now better prepared to develop statistical frameworks on climate change to contribute to informed policy decision-making. In addition, appreciation was extended to the United Nations Framework Convention on Climate Change (UNFCCC) for its continued close and excellent collaboration. This is especially valued since it ensures that the work of the statistical community is in close contact with reporting requirements for the enhanced transparency framework. Appreciation was expressed to the Chairperson of the EGES, Ms. Ruth Minja, and the Vice-Chairperson, Ms. Anjali Kisoensingh of the General Bureau of Statistics of Suriname, for their dedication and commitment to the work of the EGES. The EGES nominated Ms. Anjali Kisoensingh, General Bureau of Statistics, Suriname to serve as Vice-Chair to assist in the management of the tenth EGES and beyond. Due to the unavailability of the Chairperson and the Vice-Chairperson on the last day of the meeting, a former Chairperson of the EGES, Ms. Janet Geoghagen-Martin moderated Sessions 3, 4 and 5 on this day of the meeting.

6. The Director suggested that this Expert Group consider submitting a proposal to the UN Statistical Commission to become the "Expert Group on Environment and Climate Change Statistics" (EG-ECCS). The forty-ninth session of the Commission had explicitly recommended the expansion of the mandate of the EGES to cover more aspects of climate change statistics and indicators and based on this fact and on the work this group has already done in these two areas of statistics, the Director emphasized that it was only natural that such a proposal be presented to the Commission.

7. It was stressed that the present time is for continuation of the implementation of the work following the adoption of the Global Set at the fifty-third session of the UN Statistical Commission in March 2022 as the framework for climate change statistics and indicators to be used by countries.[4] It was noted that implementation, as well as the review process, naturally follow the adoption of any norm such as the Global Set. It was emphasized that while there have been interesting methodological developments in various areas such as health, gender and disasters, a complete review of the Global Set is a complex process that requires resources including financial and human. Experts were encouraged to bear this in mind throughout their participation at the EGES. The importance of the contributions of experts as part of the EGES in contributing to the advancement of this work was mentioned.

8. Ms. Ruth Minja, Chair of the EGES introduced the agenda for discussion and it was adopted by the Expert Group.

[3] UNSD, Report of the Secretary-General on Climate Change Statistics, Fifty-third session of the Statistical Commission (28 February to 2 March and 4 March 2022). Available at: https://unstats.un.org/unsd/statcom/53rd-session/documents/2022-17-ClimateChangeStats-E.pdf (for the Global Set of Climate Change Statistics and Indicators, refer to Annex II, p. 15/21).
[4] UNSD, Report on the fifty-third session of the Statistical Commission (28 February to 2 March and 4 March 2022). Available at: https://unstats.un.org/unsd/statcom/53rd-session/documents/2022-41-FinalReport-E.pdf

I. Session One: Climate Change Statistics and Indicators

9. This session included the following parts: (1) Implementation of the Global Set; (2) Related inter-governmental, regional and national initiatives on climate change statistics; and (3) Development of methodology and implementation support for the Global Set (including group work).

Implementation of the Global Set

10. The session was initiated with a presentation by UNSD entitled, "State of the Implementation of the Global Set of Climate Change Statistics and Indicators". This presentation demonstrated about 23 country responses to a pilot survey administered by UNSD on the State of the Implementation of the Global Set of Climate Change Statistics and Indicators, as well as the development of climate change statistics via other national efforts. Country responses showed that: some countries' experience in applying the Framework for the Development of Environment Statistics (FDES) had contributed to positive answers concerning the Global Set; since the 2022 adoption of the Global Set, several countries had made good progress based upon it; and some countries had progressed because of other initiatives and projects.

11. UNFCCC delivered a presentation entitled "Paris Agreement – New Requirements for Transparency." Details of the Paris Agreement, the enhanced transparency framework (ETF) and its new reporting tools, and a tracking of countries' implementation of nationally determined contributions were all shared. The highlight was on the benefits of transparency at both national and international level, such as development of capacity within countries, better informed policy decisions, political acceptance, the building of trust internationally, and the meeting of international obligations, etc. UNFCCC is developing the ETF reporting tools for all Parties to provide the necessary information under the Paris Agreement including a set of indicators that could be traced back to the Global Set. The continued fruitful cooperation between UNFCCC and UNSD was also presented, in particular, recent milestones of achievement which led to the adoption of the Global Set by the UN Statistical Commission.

Discussion

12. Amid the discussion which followed, colleagues enquired what may be the ideal, or even prescribed institutional setup/arrangements within countries for preparing the reporting under Paris Agreement. A colleague from Finland explained that the internal arrangements resulted in the National Statistical Office (NSO) being assigned the role of GHG inventory compiler which includes the reporting to UNFCCC. Since, in Finland, the NSO is responsible for all reporting to UNFCCC, a multitude of communication arrangements were agreed with other line ministries and agencies, especially to provide information. The colleague from the State of Palestine mentioned the importance of identifying a focal point (institution) within a country to both liaise with UNFCCC and coordinate inter-institutional efforts.

13. UNFCCC explained that the Paris Agreement does not prescribe any single, fixed set of institutional arrangements for estimating and reporting GHG inventories, and that it is known that different countries prepare the GHG emission estimates in different ways, but that probably in all

cases, official statistical yearbooks, energy balances, statistics on agriculture/livestock, waste, transport and so on, are required from NSOs and other institutions.

14. Other successful cases exist in countries were legal, institutional and procedural arrangements were put in place, such as legal frameworks, Memoranda of Understanding (MoU) and so on, to ensure timeliness and quality of statistics compiled. Experts were reminded of a common misunderstanding that GHG gases are measured. Rather, GHG emissions must be calculated or estimated based on Intergovernmental Panel on Climate Change (IPCC) methodology, with scientific expertise, country specific data on all categories and sources of emissions. The IPCC generally recommends countries use and apply activity data from official statistics (energy balance, livestock, etc.). The Paris Agreement requires all Parties (with some flexibility for some developing countries) to start reporting under the ETF every two years from the end of 2024, which will require a solid national system for estimating emissions, reporting progress in achieving the NDC and reporting finance, technology and capacity building information.

15. Parties to the UNFCCC and the Paris Agreement are required to use the new ETF reporting tools which are being built to present this information, and the final reports will be made public on the UNFCCC website. Following this effort, a review will be undertaken at international level, and there will be a global stocktake undertaken every five years (the first such stocktake will take place by the end of 2023)[5].

16. For context of compiling climate change statistics within a country, experts mentioned the use of consultants to compile GHG inventories or otherwise the use of research institutes (such as those with expertise in agriculture or land use). Further, UNSD mentioned that a key purpose of the Implementation Guidelines[6] was to facilitate inter-institutional arrangements within countries for compiling climate change statistics.

Related inter-governmental, regional and national initiatives on climate change statistics

17. The Food and Agriculture Organization of the United Nations (FAO) delivered a presentation entitled, “Emissions from Land Use, Land Use Change and Forestry (LULUCF)” which showed relationships between FAO agrifood systems and UNFCCC national GHG inventories, and LULUCF features as a component in FAOSTAT. Scientific methods for emission estimates were showcased, as was the use of geospatial information as a data source. Platforms where FAO makes available global data were also shared (FAO map of histosols, annual land cover maps, etc.). Experts enquired about guidance on how to account GHG emissions and removals in specific cases such as peatlands, seaweed and the Amazon tropical forest. FAO has a leading role in GHG accounting for food and agriculture, including LULUCF and more generally agrifood systems. The subject requires intense alignment between statistical and academic advances and demands for additional guidance on estimating emissions from agrifood systems are on the rise.

[5] UNFCCC, Global Stocktake, available at: https://unfccc.int/topics/global-stocktake

[6] UNSD, Global Set of Climate Change Statistics and Indicators: Implementation Guidelines, available at: https://unstats.un.org/unsd/envstats/Climate%20Change/Implementation_Guidelines.pdf

18. The United Nations Office for Disaster Risk Reduction (UNDRR) and the Economic and Social Commission for Asia and the Pacific (ESCAP) presented on the work of the Inter-Agency Expert Group on Disaster-related Statistics and the implementation of the Sendai Framework. A roadmap and timeline of achievements was shown as was progress in advancing toward a common statistical framework. Key takeaways included the need to share data and break down silos among institutions especially between NSOs and national disaster management offices. The processes and outcomes of reporting under the Sendai Framework were shown, highlighting that countries from Asia and the Pacific have higher rates of reporting and that several of the Sendai indicators are replicated in the Global Set and the SDG indicators. A global common framework for disaster statistics could help Member States strengthen their capacity in data collection, analysis and use.

19. The Organisation for Economic Cooperation and Development (OECD) presented its work on the International Programme for Action on Climate (IPAC) which aims to support countries in their efforts to progress towards net zero and the more resilient economy by 2050 and is a foundational component of OECD's climate work. An analytical approach to environmental data collection was introduced which is closely linked to policy responses and impacts. A showcase of IPAC's key deliverables and outcomes was also given, with data shown demonstrating the increasing severity and frequency of natural phenomena and disasters across several countries. Also, advances on key indicators were presented underlining the alignment with the efforts led by UNFCCC and UNSD.

20. The Economic Commission for Europe (ECE) presented on its Task Force on the Role of National Statistical Offices (NSOs) in Achieving National Climate Objectives. The setup and design of the Task Force was shown and reference was made about the earlier work on the creation of the Conference of European Statisticians' core set of climate change indicators (most of which are also included in the Global Set); the development of detailed guidelines including chapters on mitigation and adaptation policies and their statistical needs; and the 2023 Expert Forum for Producers and Users of Climate Change-Related Statistics. Advancement in this work may involve forming data linkages, using geospatially enabled data, and sharing microdata for research purposes.

National experiences

21. The sub-session was moderated by Karina Cázarez, PARIS21 consultant, with four countries sharing their national experience in developing climate change statistics using the Global Set and other guidance.

22. Brazil, Institute of Geography and Statistics (IBGE) shared their experience in creating an inventory of the Global Set using the Climate Change Statistics and Indicators Self-Assessment Tool (CISAT)[7] and the Environment Statistics Self-Assessment Tool (ESSAT)[8] as reference. This will serve as a guide for the Global Set in Brazil in evaluating the coverage of environment statistics, evaluating

[7] UNSD, Climate Change Statistics and Indicators Self-Assessment Tool (CISAT), available at: https://unstats.un.org/unsd/envstats/Climate%20Change/cisat.cshtml
[8] UNSD, Environment Statistics Self-Assessment Tool (ESSAT), available at: https://unstats.un.org/unsd/envstats/fdes/essat.cshtml

the quality of data and the statistics as it relates to climate change and establish a statistical reference framework for climate change with stakeholders. Brazil plans to publish its Environment Statistics Guide in 2024 and then continue working with the relevant institutional arrangements. After publishing the Guide in 2024, there will be an evaluation of the technical and thematic Institutional Working Group, and a proposal to create an Environment Statistics Committee. Brazil would like to present this work next year to the EGES.

23. Netherlands, Central Bureau of Statistics, presented a self-assessment on the EU Green Deal statistics (2022-2023) which is needed in the future for Europe and especially for the Netherlands, and a Pilot Review on Climate Change Statistics coordinated by Eurostat (2021) was shared. In the self-assessment, it was shown that there are lots of data gaps and that there is a need to set priorities. They further stated that policy goals are also needed. Among the most key suggestions were to have a high-level programme manager to arrange high level support, to have a multi-annual Action Plan, and to propose specific conversation topics when liaising with key stakeholders.

24. Cabo Verde, National Institute of Statistics (INE), presented on its creation of a technical committee to introduce environment and climate change statistics in the National Strategy for the Development of Statistics (NSDS). It began with the preparation of its fourth NSDS for 2022 to 2026. Activities directly related to environmental and climate change statistics were included, taking into account: Cabo Verde National Strategic Plan for Sustainable Development 2022-2026 indicators, the Global Set, the SDG indicators, FDES 2013, the System of Environmental-Economic Accounting (SEEA) and recommendations from the OECD. Cabo Verde mentioned that one of the most anticipated benefits to this process is the availability of human, financial and technical resources to carry out the planned activities which will make it possible to improve the coverage, quality and frequency of the production of environment and climate change statistics to respond to national and the international requests. It was also noted that greater commitment is also expected in future.

25. Suriname, General Bureau of Statistics (GBS), also shared its national experiences based on the Global Set and how it has been used to organize existing information, and the value of having such information readily accessible for decision makers, especially for the mitigation and adaptation processes. Suriname recently published its first climate change statistics report using the Global Set (50% of the climate change statistics were available in their environment statistics and UNFCCC reports) and mentioned that being a part of the EGES has helped with this process. It was also stated that having a separate climate change statistical publication made it easier to make the link with the existing climate change projects. Suriname plans to include climate change questions in their upcoming census in August 2024.

Discussion

26. Experts expressed the clear messages from colleagues in the valuable assessment exercise: there are challenges associated with widespread volumes of data, management of stakeholder consultation, and clarity of definition of policy goals, with or without legislative backing. It was also noted that there is a challenging (and interesting) task ahead. Experts acknowledged the

value and use of the self-assessment exercise and findings. Therefore, the importance of NSOs in coordination or contribution to the compilation of national communications (such as the GHG inventories), while recognising that the specific expertise lies in various sectors or line ministries and specialised agencies, was underlined.

27. Experts noted that the available tools are adaptable to those countries with varying national capacities, and different levels of national statistical systems, in terms of environment and climate change statistics. Experts also highlighted Zimbabwe's experience on assessing selected SDG indicators and Sendai Framework indicators applying the CISAT.

28. Experts also stated that the tools serve different purposes and added value on their own – although some actors might perceive ESSAT and CISAT as being quite similar, as is for the experience from Suriname, it was re-emphasised that they serve different purposes and added value on their own. CISAT has helped to organise data and information in a way that is easier to link to ongoing policies, particularly in the Mitigation and Adaptation areas.

29. Experts mentioned that the tools are complementary to different processes and other tools (such as those shown by Cabo Verde and the Netherlands). It was also shown how these tools can be used to bring visibility to environment and climate change areas in an NSDS and other planning processes. This was noted in the PARIS21 experience which identified how, in particular, the CISAT provides valuable information for strategic data planning and complements the tools developed by PARIS21.

30. Experts noted that Jordan has made very essential advances mostly done on the basis of the FDES and that was presented in last year's EGES meeting. Jordan built an entire database structured according to the FDES, which facilitates the collection and dissemination of environment and now also climate change statistics. Jordan would like to see focus on artificial intelligence, new software tools and, more generally, data science applications related to the data collection for new statistical areas like environment and climate change statistics.

Session One: Climate Change Statistics and Indicators: Group Work

Development of methodology and implementation support for the Global Set

31. UNSD presented the main elements that required further development and the revisions and improvements in the Global Set, e.g., many indicators belonging to more than one of the five areas, changes in tiers, developments on selected prioritized areas like health and gender. UNSD also provided feedback in disaster and biodiversity indicators and statistics and stated that there will be developments to apply in the Global Set. UNSD is also looking to concentrate further on data collection methods for climate change statistics that include surveys and censuses but specified that other aspects like geospatial data must also be prioritized. This will improve metadata details, such as relevance, disaggregation, data sources etc., and create new metadata, for Tier 3 indicators, including new indicator names, definitions, compilation, etc. UNSD shared the recent work done by the UK-ONS and the coordination work done with UN Women, pursuing

the methodological developments, and following the framework of the Global Set. UNSD expressed the need to develop several of the very complex and resource intense areas of statistics, and the need to engage closely with very specialized experts.

32. The United Kingdom presented on work concerning global climate change and its impact on health. The presentation gave an overview of climate and health pathways and indicators, and examples were provided of the relationship between heat and health. The challenges associated with closely monitoring the relationship between climate and health were highlighted, but such challenges were to be investigated during group work.

33. A representative of the Inter-Agency and Expert Group on Gender Statistics (IAEG-GS) introduced recent initiatives regarding the integration of a gender perspective into the field of environmental and climate change statistics. The first agreed-upon activity by IAEG-GS involved creating a guidance note highlighting the relevance of gender statistics in addressing environmental challenges and improving actions related to climate change and disaster risk. This note aims to foster dialogue between gender specialists and climate change data producers, exploring the connections between environment, climate change, and disasters and their relationship to gender roles and issues. It will also examine existing conceptual frameworks, policy questions, and the various data sources applicable to support these frameworks.

34. A consultant for the Economic Commission for Latin America and the Caribbean (ECLAC) presented a brief introduction and applications of the CISAT. The CISAT consists of two parts, as well as an introduction and accompanying metadata of the Global Set. The CISAT package and its structure was explained. The application of the CISAT in two countries, (Peru and Suriname) was shared highlighting who coordinated, the length of the process, the institutions that participated and the benefits.

35. Consultants for the Common Market for Eastern and Southern Africa (COMESA) introduced the Implementation Guidelines for the Global Set and stated that its main aims and objectives were to help countries to improve the monitoring of climate change statistics defining the role of the NSOs, the national focal points and the key stakeholders. They shared their experience on an online assessment where 37 African Development Fund (ADF), countries participated during which the ESSAT and CISAT were used. The main objectives of the assessment were to identify which countries were implementing the FDES and the Global Set, identify the indicators with available data, establish if these were published and in what format they were disseminated. These findings assisted COMESA to technically support three countries to produce compendia on environment or climate change statistics.

Discussion

36. Experts reiterated the importance of engaging the specialised experts for each indicator/topic in the consultation and self-assessment process.

37. The group work session started with an introductory presentation by UNSD – outlining the key issues which the EGES was expected to review. The groups were divided into: (1) climate and

health; (2) climate and gender; (3) applications of CISAT; and (4) application of implementation guidelines and roadmaps.

Group Work

Group 1: Climate and health

38. A group of 14 experts, represented by Grenada, Nepal, Suriname, Uganda, United Kingdom, Pacific Community (SPC), ECE, United Nations Economic and Social Commission for Western Asia (ESCWA) and United Nations Environment Programme (UNEP), participated in the discussion on climate and health.

39. Experts started off by discussing the causal pathway of climate impact on health and then moved on to understanding specific indicators and priorities that are within the climate and health area. Heat was the main focus, but the importance of measuring the impact was also discussed and recognized together with the effect from health to healthcare facilities. It was observed through two aspects: the burden on the health care facility, but also the access to healthcare when looking at climate impacts. Experts also mentioned that there was a wide range of extreme weather events and also different health outcomes (e.g., communicable and non-communicable diseases), and that it varies quite widely from country to country and climatic exposures.

40. Experts discussed how these statistics would be reported as well as what disaggregation would be of interest. A contrast between urban and rural (geography stratified) environments particularly showed how different climate phenomena impact urban and rural populations. Experts also mentioned how to define urban and rural areas, which can be quite challenging and would want to ensure a consistent methodological approach be used. Similarly, with socioeconomic status, different methods of categorizing this indicator were discussed (depending on context and location), with some examples of how different countries are currently mitigating these challenges. Lastly, experts noted a (higher) scale of spatial level needed to measure climate and health indicators which is depending on the climate/weather events and exposures. For those climate events that are nationally focused, their local level geography might not be appropriate to make adaptation strategies.

41. Experts considered the challenges in context of conducting this research within and across multiple organizations. Experts mentioned data access is the main challenge given that health data is one of the most important as well as sensitive types of datasets which countries' Health Departments/Ministries may hold. To access people's confidentialised healthcare records and then link those to climate data is a huge challenge because of data accessibility and ethical considerations (as well as matching the same spatial and temporal scale of health and climate data). Additionally, there are other resources needed to conduct this work. Funding is the main resource required in order to collaborate with other institutes and more people are needed to be allocated to work on the topic. Therefore, it can be quite challenging to get this work done as a priority. Data quality was also mentioned as another hurdle. For example, some countries may not necessarily have cause of death records, and this may impede investigation into the true relationship between specific cause of death and climate exposure. Given these challenges, it was also noted that long time series are needed in order to relate the attribution to climate change.

42. Experts concluded in the discussion/group session with important messages, such as: Climate Change is a global challenge and its impact on health should be central to an agenda into climate-related statistics reporting across the globe. There were some key challenges with respect to reporting climate and health-related statistics, i.e., data accessibility and data quality (in terms of spatial and temporal scale) which are essential in order to measure impacts and design climate adaptation and mitigation polices.

Group 2: Gender and climate

43. A group of 11 experts represented by Italy, State of Palestine, United Arab Emirates, Caribbean Community (CARICOM), European Environment Agency (EEA), SPC and UN Women, participated in the discussion on gender and climate. UN Women presented on mainstreaming gender across environment statistics with a focus on ongoing methodological work. Details of how the Asia-Pacific indicator set was established were provided, and then there was a focus on a limited number of indicators which are not within the SDG Agenda nor the Sendai Framework.

44. Experts from Member States agreed to share their household surveys on gender and environment with UNSD to add to its repository for public use. In addition, this can allow for analysis of survey design, and how to implement gender and climate change into existing household surveys.

45. The Global Set (especially in the case of its Tier 3 indicators) can benefit from methodological work on gender and climate change statistics, in particular the work carried out by Asia-Pacific region. The advances should be reviewed and incorporated into the Global Set, so long as they meet criteria such as methodological soundness, data availability, policy relevance, etc. An indicator as a first example to undergo this process may be indicator 74 of the Global Set (Impact on production of wood and non-wood products) for which a comparable indicator currently undergoing methodological development is GE30: Proportion of people harvesting forest products, including for the creation of cultural goods and services who use sustainable management practices, including traditional knowledge, by sex. GE30 is part of the Asia-Pacific Indicators on Gender-Environment. Other indicators that were discussed include population exposed to hazards and violence following disasters.

46. Experts agreed that the work on indicators with detailed metadata from the Asia-Pacific region is suitable for review for updates of the Global Set, especially where similarities are identified. Experts also agreed to continue the discussion regarding the opportunity to incorporate gender and climate change questions into existing household surveys or censuses, (Population and Housing Censuses, Multiple Indicator Cluster Surveys (MICS), Demographic and Health Surveys, Labour Force Surveys, or others). It was also noted, that for gender analysis, intrahousehold dynamics are important, and therefore the data collection exercises require sampling schemes that allow for self responses and for interviewing two members of the same household (of opposite sexes). Specialised household surveys with a focus on gender and climate change may be considered. Other topics (which are currently not included in the set of indicators for the Asia-Pacific region) were also considered, including migration, crime and environmental concerns.

Group 3: Applications of CISAT

47. A group of 13 experts, represented by Armenia, Belize, Botswana, Finland, Jamaica, COMESA, ECLAC consultant, ESCWA, Global Partnership for Sustainable Development Data, MEDSTAT, and a PARIS21 consultant, participated in the discussion on the CISAT.

48. The objective of the group work was to review about half of the questions from the survey which are more closely related to self-assessment steps, while the other half was allocated for review under the group work on the Implementation Guidelines.

49. Six questions (out of 11) were prioritised, of which three were thoroughly discussed in terms of their clarity, and whether more details need to be included. Key points regarding the use of CISAT or other tools included the need to specify which other tools have been used; the use of non-traditional data to fill the data gaps; more details on which parts of the CISAT were used by which national institutions; the need for a strong national committee with adequate resources and support; the challenge to engage with specialised national agencies (who do not have a strong statistical background) was raised; and the need for vertical (regional) communication to exchange lessons and expertise.

50. Regarding the question on a national set of indicators, experts suggested that indicators should be selected once there is a strong committee representing the various nationally prioritized topics. The status of methodology and preparedness to apply these indicators should also be considered, as should the needs of the nationally determined contributions (NDCs), national action plans (NAPs) and other planning instruments.

51. Regarding the question on assessing data gaps and data quality, key suggestions included that countries need to establish a baseline and data quality should be assessed in relation to type of data source (e.g., surveys, administrative data, etc.). The role of data science and new techniques, including artificial intelligence, geo-spatial data, machine learning, etc. were also discussed.

Group 4: Application of Implementation Guidelines and Roadmap

52. A group of 16 experts, represented by Botswana, Brazil, Cabo Verde, Finland, Hungary, India, Mexico, Nepal, the Netherlands, Tanzania, Uganda, SPC and COMESA consultants, participated in the discussion on the application of implementation guidelines and roadmap.

53. Experts met to review five priority questions of the survey and agreed to other survey questions of relevance to the Guidelines. There was much discussion during the session on only four of the priority questions. Not many of the countries had used the Guidelines and therefore it was stated that it was too early to give feedback on their experiences. However, experts agreed that more experiences needed to be gathered over time and until then there was no specific basis to apply any changes to the Implementation Guidelines.

54. Experts noted that most NSOs reported having a legal mandate to produce official statistics. However, other specialised organizations had the responsibility for some climate change statistics and therefore collaboration with others was important. It was mentioned that legal frameworks

in countries differ and experts agreed that links to the legal mandates should be provided in the survey.

55. Experts concurred that both formal or informal committees existed and regardless of the form they take, committees were useful in creating networks to collaborate and discuss the statistics and indicators. Experts noted that committees based on Multilateral Environmental Agreements (MEAs) may not cover all topics in the Global Set.

56. Experts suggested for the question, "Have steps been undertaken to strengthen human resources or training for producing Climate Change statistics in your country?", that it may be helpful to clarify: (a) with reference to more persons being recruited; and (b) perhaps on the type of training. Experts also strongly suggested that a question on whether a member of the NSO has participated in training offered by UNFCCC to become one of their reviewers be added. Experts urged that NSOs be included in UNFCCC meetings/training sessions.

57. Experts noted that with respect to the question on user surveys it may be useful to include "for climate change", and possibly include environment statistics and SDGs as this would be useful to countries. Also, suggestion was made to include part (a) to refer to users and part (b) to refer to other data producers.

Discussion

58. After a short summary each group presented to plenary. The ensuing discussion mentioned how many countries benefit from collaboration at international level. Further, if environment and climate change can be considered in a country's NSDS, it is of great persuasive power to international donors. Other experts reiterated the value of the EGES in allowing the NSO within country to advance its communications with other stakeholders.

59. With further regard to the NSO collaborating with other stakeholders, such as line ministries, the expert from Suriname mentioned the issue whereby a stakeholder may have the data required concerning environment or climate change statistics, but not fully appreciate its value for SDG indicators, the Global Set, or other purposes. In confronting such a scenario, provision of training to the stakeholder may be of use.

60. Since the above discussions and recommendations provided a number of points to be considered and scope to possibly improve the questions in the pilot survey in the future, it may be better to revise the survey after more examples of Member State implementation can be reviewed at the next EGES meetings.

II. Session Two: Environment Statistics Data Collection

61. This session was divided into three sub-sessions: Water statistics, Waste statistics and Other data collection and reporting requirements (data collection instruments).

Water Statistics

62. The first sub-session on Water statistics began with a keynote speech from World Health Organization (WHO) which had participated in the UN Water Conference in March 2023. A conference synopsis emphasising data's role in water, sanitation and hygiene was provided. This conference truly was a landmark event for water as it was the first in a generation aimed at uniting Member States and stakeholders in advancing solutions for SDG 6 globally. An analysis of water-related commitments by thematic area and entity was provided, and the main messages of the UN-Water SDG 6 Synthesis Report 2023 were shared. Among the main messages was the need to fill data gaps to enhance decision making and reduce inequalities by strengthening national statistical systems, combining data sets from all stakeholders, and promoting novel technologies in standardisation. The method by which WHO may use country-owned data from the UNSD/UNEP Questionnaire on Environment Statistics, but also draw from other national data sources, was mentioned. An annex to the presentation includes information about the UN 2023 Water Interactive Dialogues, and infographics describing progress concerning various indicators of SDG 6.

63. UNSD presented on a showcase of the practical use of country-owned water data for the SDGs. Upon the completion of the 2022 data collection cycle, 78 Member States have confirmed responses to the UNSD/UNEP Questionnaire on Environment Statistics which is a response rate of 47%. With varying degrees of success, supply of data collected via the Questionnaire is meeting demand for SDG indicators, the Global Set, and other purposes, however the overall supply of data is far from ideal. Lack of data supply as seen in water and waste statistics was noted to also be an issue in other themes for which there is demand via the SDG Agenda. UNSD continues to advocate for as many uses (e.g., SDG purposes, Global Set, FDES, SEEA, Sendai Framework, etc.) as possible of data provided by countries.

64. Following the two presentations by WHO and UNSD, a panel on water statistics, moderated by ECE, was set up. In its role as secretariat of the EGES, UNSD assembled the panel comprising colleagues with various fields of expertise from international organisations and UN Member States. The moderator put a question to each of the panellists, one after the other, which gave opportunity for panellists to apply their expertise in providing answers, and to demonstrate the value of country-owned statistics, to inform policy making on a wide variety of themes.

65. OECD informed about how the Joint OECD/Eurostat Questionnaire on the State of the Environment is used for measuring SDG indicators, including issues pertaining to water stress, but is also used to fill in water accounting tables and to provide information concerning climate-related statistics. Water accounting is one of the five main priority accounting tables for the SEEA work to which OECD contributes. While noting that data gaps remain prominent and that there is

so much information which remains unknown, examples of issues concerning data quality as applies to water abstraction were provided (e.g., abstractions of water being misleadingly reported as permits for water abstractions). While such data gaps remain, details concerning issues such as evapotranspiration, soil water runoff, and the impact of climate change upon the water cycle also remain unknown. Moreover, there have been cases where disasters such as floods or droughts have not really been reflected in water statistics collected. To address some of these shortcomings OECD is taking steps to move further toward compiling water accounts. To this end, OECD is discussing with Member States the modification of the Joint Questionnaire to be more aligned with SEEA Water.

66. Regarding the question on how the global water information system (FAO AQUASTAT) is used to inform policy concerning food security and agriculture, FAO shared information drawing from its experience and expertise in this field. In making comments, FAO cited facts (e.g., globally, irrigation in agriculture accounts for approximately 72% of all freshwater withdrawals) which are very relevant to informing agricultural policies, especially those concerning irrigation, in many countries. Understanding such information is very informative for SDG indicators concerning water use efficiency and water scarcity (SDG indicators 6.4.1 and 6.4.2) for which FAO is the custodian agency. FAO stressed the value of country-owned data for informing water management decisions as pertains to agriculture, irrigation, and water withdrawals. The application of water statistics related to water-use efficiency was mentioned, which is key to understanding economic output of various industries, the water use intensity of various industries, and the impact of new technologies on water use. When raising issues concerning water stress levels and water scarcity, water statistics are also informative, especially when consideration may turn toward non-conventional water sources such as saline water, desalination, and use of treated wastewater for agriculture. Socioeconomic disaggregation of water statistics, for example, percentage of area equipped for irrigation owned by women, is also of interest for future work.

67. In reference to the main policy questions to which WHO's work on water statistics addresses, WHO strongly emphasised the use of the international questionnaires for informing on SDG indicator 6.3.1 (proportion of wastewater safely treated), and detailed its approach for when country data may be incomplete or absent. Experts were reminded of WHO's main focus upon domestic wastewater safely treated (as opposed to industrial wastewater, which is under the purview of UN-Habitat), and that as of 2022, estimation is made, at a global level, that 42% of household (synonymous with domestic) wastewater flows, are not safely treated. A very detailed diagram of how wastewater flows are treated (or not treated) was shown, as was how this diagram relates to variables collected via the UNSD/UNEP Questionnaire on Environment Statistics (water section). It was highlighted that this global average masks the vast disparities across countries and regions. At one end of the spectrum, there are Member States where most households are connected to sewers which convey most water to wastewater treatment plants with advanced technologies and with treatment levels at a very high level of efficiency (considered tertiary level treatment). On the other hand, there are many Member States where sewers are not common, where septic tanks are not properly containing excreta, and where wastewater may be emptied or disposed of without much treatment at all. One key point for informing policy

makers is that there is clearly an urgent demand for the financing of infrastructure to improve wastewater treatment. WHO further noted that when country-owned data in international questionnaires are incomplete, other sources from countries are used to fill gaps. Such an approach allows WHO to use data from both international questionnaires as well as from other public sources from countries which could come from a regulator or another source outside of the NSO.

68. UN-Habitat pointed out that by 2050, it is estimated that 70% of the world's population will be living in urban areas, and that, as of now, approximately half of those urban areas have not yet been built. Hence, statistics and information on water, sanitation and wastewater treatment can enable better prediction and how best to plan and build such urban spaces. UN-Habitat's strong interest in wastewater also ties to issues such as climate change, increases in water scarcity, the reuse of treated wastewater, and water demand management in cities. Bearing in mind that treated wastewater can be reused for certain purposes, and that water consumption can be curbed in cases where consumption is excessive, preparations for anticipated urban expansion can be much better informed. For consideration of industrial wastewater treatment, a major source of data is the UNSD/UNEP Questionnaire on Environment Statistics. Hence, UN-Habitat is strongly encouraging UN Member States to submit data to this Questionnaire, as well as to other international questionnaires. The importance of collaboration between line ministries and NSOs, especially in helping inform on disaggregation to sub-national level, was highlighted.

69. State of Palestine presented on the process of going from raw data source in country to informing SDG policy making and other water policies and uses. The coordinating role played by the Palestinian Central Bureau of Statistics was emphasised especially as pertains to liaisons with key stakeholders. The value of signing memoranda of understanding with stakeholders, arranging national and technical committees, training, workshops, and use of administrative records were all stressed. All such efforts contribute toward State of Palestine realising its National Water Information System. This in turn has also contributed to the State of Palestine's regular submission of water statistics to the UNSD/UNEP Questionnaire on Environment Statistics for several years.

70. Ireland presented on water supply and wastewater data sources for SDGs in Ireland, with a special focus on three indicators which are part of SDG 6. Data sources (environment questions from the Census of Population, domestic wastewater treatment administrative data, water meters, and a water abstraction register) were mentioned as inputs for informing on indicators 6.1.1, 6.2.1 and 6.4.1 (related, respectively, to drinking water, sanitation and hand-washing, and water-use efficiency). The value of the Central Statistical Office in obtaining confidentialised administrative microdata on all water meters in Ireland, with the power of a Statistics Act behind it, was stressed.

Discussion

71. Over the course of the discussion and even during presentations, the issue of aggregation and disaggregation to city, water basin level or national level was raised several times. Sources that can help inform upon this include remote sensing data. Lack of data and information concerning

water quality was also raised several times, especially when touching upon scope for considering desalinated water, treated wastewater (and degree of treatment), etc.

72. During the discussion, a comment was made on the importance of measuring desalinated water and other problems associated with lack of available water resources. UN Member States expressed the importance of international questionnaires being as aligned as possible with one another to avoid duplication of effort within Member States.

73. A quick online poll was put toward experts during the panel session. The poll revealed that most experts in the room were representing NSOs. Experts' major areas of interests related to water statistics were data compilation, water accounts, inter institutional agreements, and wastewater treatment.

74. Some Member States offered to share, with UNSD, survey forms they use for the consideration of others in their population and housing censuses. Such surveys will be housed by UNSD on its website[9] for the consideration of other Member States.

Waste Statistics

75. In the second sub-session on Waste statistics, the following presentations were delivered: (i) Recent developments on waste statistics (by each of three international organisations); (ii) UNSD showcase of practical use of country owned waste data for SDGs; and (iii) National successes and challenges of waste data.

76. UNEP presented a summarized report on SDG indicators related to waste pilot data collection activities. They introduced the work being done by United Nations Institute for Training and Research (UNITAR) in collaboration with United Nations Conference on Trade and Development (UNCTAD), ECE, UNSD, OECD and others, to develop a statistical guidance on measuring flows of plastic along the lifecycle and shared their capacity building activities in 2023. They also informed the plenary that the environmental SDG indicator online course has been translated into French in addition to English and Russian.

77. UN-Habitat presented on advancements in the work on SDG 11.6.1 and the methods related to the Waste Wise Cities Tool (WaCT) used as a diagnostic tool for cities, the development of a monitoring methodology and the Waste Data Portal. They mentioned that the collaborative action needed to accelerate data collection is the alignment of the terminologies between UNSD and UN-Habitat. UN-Habitat will continue to provide capacity development.

78. UNITAR presented on the Global e-waste statistics and the recent development and links to environment statistics. They mentioned the work done and the toolkits that were developed to assist Member States to compile statistics. They indicated that the ongoing collaboration has vastly improved the quantity and quality of the data collected.

[9] UNSD, Compilation of environmentally-related censuses and surveys and specialized environment surveys, available at: https://unstats.un.org/unsd/envstats/censuses/

79. UNSD showcased the practical use of country-owned waste data for SDGs via the UNSD/UNEP Questionnaire on Environment Statistics. Similar to when the water section was presented, different charts and maps were used to demonstrate how countries' data are used for the SDG indicators. Like data for water, waste data apply to many policy contexts related to SDG indicators, climate change, environment statistics, etc. Country-owned data submitted to UNSD was shown as it applies to informing SDG indicators (e.g., concerning hazardous and municipal waste treatment). Efforts to improve country responses were mentioned.

80. Bangladesh presented on its national success and challenges. They shared the lessons learned in the production of waste statistics, the challenges of having many stakeholders involved and the issue of accessibility, quality, and timeliness.

81. Mauritius explained in detail the status of data collections and highlighted the various setbacks and challenges namely, the various stakeholders, response to queries and timeliness. The way by which Statistics Mauritius maintains a mapping of each stakeholder required for liaisons with each table of the UNSD/UNEP Questionnaire on Environment Statistics (for both water and waste), was shared. One of the main challenges was the follow-ups with stakeholders who were not able to provide the required information within the specified deadline.

Discussion

82. The discussion raised questions pertaining to SDG Indicator 11.6.1 calculation and estimation. UNSD informed that many of the indicators in the questionnaire feature in the methodology of the SDG Indicator 11.6.1, therefore the data reported by Member States ideally filter through the SDG indicator 11.6.1 analysis. UNSD also mentioned that they are not involved in any estimates nor imputations of the data collected. The expert from UN-Habitat further explained the estimation process using the WaCT.

83. Member States mentioned the challenges on quantifying e-waste recycled/recovered. Some stated that they are yet to calculate SDG 12.5.1. It was suggested that the UNSD/UNEP Waste Questionnaire emphasise its relevance to the data needed for SDG-related indicators. Member States also mentioned that inter-institutional collaboration is necessary as was shown by those that presented on the challenges faced.

Other data collection and reporting requirements (data collection instruments)

84. In the third sub-session on other data collection and reporting requirements (data collection instruments), the following presentations were delivered: (i) data sources used in environment statistics and climate change statistics; (ii) developments in survey module on climate change; (iii) a country experience on climate change related data collections via Population and Housing Census.

85. UNSD presented on the sources of data in environment and climate change statistics with a main focus on surveys and censuses. The presentation emphasised that through ongoing collaboration between the Environment Statistics and the Demographic Statistics Sections of UNSD, a

repository of environmentally-related censuses and surveys is made available via its webpage.[10] Further, the presentation recalled that a few countries included a dedicated section on the environment in their Population and Housing Censuses (PHC). The presentation also emphasised the importance of censuses as a data source and in this regard, showcased some statistics and indicators from the Global Set that can be sourced from PHCs. In addition, the use of surveys to collect data on the impact of climate change and disasters whether as specialised surveys or through the inclusion of specific questions or a module, was emphasised. Further, it was highlighted that there was a golden opportunity for engagement in the revision process of the UN Principles and Recommendations for Population and Housing Censuses (P&R), rev 3,[11] that is currently taking place. The P&R will inform topics for inclusion for the 2030 Round of PHCs and Member States were urged to engage with the task team (one of seven), represented by the chair of the EGES to have as wide as possible consultation with Member States.

86. SPC, while expressing its appreciation for the collaboration with UNSD, presented a core module of 11 questions from a total of 30, on climate change and disasters, as part of a survey designed to collect data in the Pacific Islands. The survey was designed to address climate change indicators and statistics from the Global Set, the FDES, Sendai Framework and the SDGs, and aims to provide data at a disaggregated level. Consisting of five sections, the survey was currently being tested in Kiribati. An accompanying source book was also developed to guide users to implement the survey. It was noted that given the existing commonalities with small island developing states (SIDS) in particular, the survey and source book would be very useful to other regions.

87. Tanzania provided an overview of its environment statistics data collection, environment and climate change questions in the 2022 Population and Housing Census (PHC), and recommendations for the 2030 Round of PHCs. It stated that the main objective of including questions related to environment and climate change was including, but not limited to, collecting baseline data for some environment and climate change statistics; raising awareness of environment and climate change for all persons in the country; and seeking public opinion on various aspects related to knowledge and perceptions about climate change. The presentation demonstrated that in 2022 the PHC[12] includes a new environment section with additional environmentally related questions such as on electronic waste disposal, as well as innovative questions on climate change. It was noted that Tanzania was the first country to feature specific questions on climate change in the PHC. Tanzania recommended that NSOs maintain the traditional environment-related questions such as on sanitation, sources of water and energy in PHCs, to inform national and international programmes. The representative also recommended that Member States consider nationalising the Global Set to fit their national context and explore using various data sources to bridge data gaps for environment and climate change statistics. Further, the representative encouraged Member States to get involved in developing questions/topics that can be shared with the UN Expert Group responsible for the revision of the P&R for consideration.

[10] UNSD, Compilation of environmentally-related censuses and surveys and specialized environmental surveys, available at: https://unstats.un.org/unsd/envstats/censuses/ (accessed 19 October 2023).
[11] UNSD, Principles and Recommendations for Population and Housing Censuses, Revision 3 (2017), available at: https://unstats.un.org/unsd/publication/SeriesM/Series_M67Rev3en.pdf
[12] National Bureau of Statistics - Population and Housing Census (nbs.go.tz)

Discussion

88. Experts welcomed the presentations and expressed appreciation for the sub-session on other data collection which provided useful information for Member States. Experts expressed support for the work of the Environment Statistics Section and welcomed the internal UNSD collaboration which led to the review of census and survey instruments. Experts also welcomed the Pacific Community's module on climate change and disasters and an accompanying source book which could be applied to other regions. Further, experts encouraged countries to continue their efforts towards developing a separate environment section in the PHC or expand existing environment sections to include more questions on the environment, as well as on climate change, as was done in the case of Tanzania.

89. Member States were urged to consider identifying statistics and indicators from the Global Set which can be sourced from PHCs and specialized surveys. They were also encouraged to develop specialized environmental/climate change surveys and/or include related questions in PHCs (2030 round) and household surveys to increase data availability and data disaggregation, raise awareness of climate change and seek public opinion.

90. The national examples of censuses and surveys on environment-related and climate change themes are available from UNSD's website[13] which was considered very useful to the data ecosystem and Member States were encouraged to continue to share national surveys to populate the repository. In this regard experts encouraged the Pacific Community to provide access to the full survey and source book through UNSD's online repository.

91. It was noted that since specialized surveys tend to be very expensive and given the scarcity of financial resources and insufficient quality of administrative data, it is challenging for Member States with developing national statistical systems to collect data on climate change and disasters. The PHC is in many cases almost the only source of data. Also, it was recalled that although consideration has been given to adding specific questions and modules in existing surveys, this is still not feasible in some Member States. In this regard, the formation of a working group of experts was proposed to facilitate a general collection of climate change questions and to develop a core set which can inform the Global Set as well as the 2030 Sustainable Development Agenda and Beyond.

92. Further, experts noted the importance of producing and disseminating analytical reports and special topic monographs to inform about the results of new questions, such as those on climate change, which are being added to PHCs.

93. In order to support and represent Member States' suggestions of topics and questions in the UN Principles and Recommendations for conducting PHCs (P&R) rev 3 experts proposed that the core questions/topics developed by the working group of experts be discussed with the UN Expert

[13] UNSD, Compilation of environmentally-related censuses and surveys and specialized environmental surveys, available at: https://unstats.un.org/unsd/envstats/censuses/

Group responsible for the revision of the P&R, for consideration, prior to its submission to the 56th session of the Statistical Commission in March 2025.

III. Session Three: Environment Statistics Toolbox

94. The session, focusing on the FDES and the Basic Set of Environment Statistics, included presentations on: Implementation of the FDES and national compendia on environment statistics; and ESSAT applications.

95. UNSD provided an overview of the status of development of the Manual of the Basic Set of Environment Statistics, with brief methodology introduced in 17 methodology sheets, covering most topics. Two new chapters were recently published on geological and geographic information and on freshwater quality. UNSD also underlined that remaining topics require deeper, more specialized contributions. It was recognised that UNSD's hub of Environment Statistics Compendia and other specialised publications on environment statistics and related topics,[14] while being very useful, is not currently exhaustive Therefore, experts kindly agreed to help populate the hub by sharing the respective links from which additional publications can be accessed.

96. UNEP presented on the ESSAT application in two Member States, Benin and Botswana, under the national cross-cutting capacity development project and funded by the 6th replenishment of the Global Environment Facility (GEF-6).[15] The main objectives of this project were to adopt a sound environmental indicator framework and shared MEAs and reporting systems. This will be used to eventually build the Environment Information system. Once the list of Member States is finalized, it will be shared with the developer of the Environment Information system.

Discussion

97. Following the presentation by UNEP, a question pertaining to the NSO's role in the assessment was asked since it was mentioned that ministries of sustainable development and others provided the required information. It was noted that the NSOs were also present.

98. Uganda also shared their experience and recommended drafting a concept note since that would have the information on the two frameworks (FDES and the Global Set). It was stated that using a systematic approach, which entailed first applying the ESSAT as this allows for building a comprehensive foundation based on the FDES, and thereafter, applying the CISAT for the Global Set, was the approach taken in Uganda.

99. Belize shared their experience in applying the ESSAT, and compiling a report based upon it. Belize's National Statistics Office was actively involved in the NSS, which supported the

[14] UNSD, Environment statistics and related compendia applying the FDES 2013 and other similar publications, available at: https://unstats.un.org/unsd/envstats/fdescompendia.cshtml

[15] Global Environment Facility, GEF-6, available at: https://www.thegef.org/sites/default/files/documents/GEF-6%20Programming%20Directions.pdf

Department of Environment in their endeavours. Belize also noticed that the self-assessment exercise for the FDES helped to identify gaps for the SDGs, reasons for the unavailability of certain statistics, and future steps to address these shortcomings. The ESSAT was used to establish data sharing agreements and MoU templates.

100. Another expert mentioned having a similar project to the one mentioned by UNEP called an environmental observatory which uses the FDES as the basis for collecting data because of its completeness.

101. UNSD responded to the question on the future work on methodology sheets. They stated that the Manual was planned to develop methodological guidance only for the Tier 1 statistics in the FDES. UNSD mentioned that a review of the methodology sheets published should be undertaken as appropriate.

IV. Session Four: Capacity Development in Environment Statistics and Climate Change Statistics

Capacity development

102. UNSD presented on capacity development for environment and climate change statistics, emphasising work it has led whereby countries have initiated a national programme on environment and climate change statistics and other projects it has participated in as well as future plans. UNSD proposed to initiate work on a strategy for the international and regional organizations to strengthen capacity development activities on environment and climate change statistics in the countries. The aim would be to assist these organizations in their capacity development efforts, so this should the existing guidance, including the 'Handbook on Management and Organization of National Statistical Systems, Chapter 16 - The International Statistical System (ISS)' which has a chapter specifically addressing the international statistical system; the UN Statistics Quality Assurance Framework (UN SQAF); Putting the FDES to work – A Blueprint for Action. Such a strategy should not just build on the above generic guides but also on specific inputs, such as the IWG-ES Inventory of capacity development activities (last one from 2019; and the Global Consultation outcomes, which include information on 25 international organizations.

103. ESCAP and UNEP presented on activities on climate change and disaster-related statistics under the Development Account (DA) 14 project. This project focuses upon a resilient and agile national statistical system and is helping to improve data collection tools for two indicators contained in the Global Set and two SDG indicators. Further, mention was made of global webinars on strengthening climate change and disaster-related statistics which reference relevant international statistical frameworks and guidelines, such as the Global Set and Geo-statistical frameworks, inclusive of the Global Statistical Geospatial Framework,[16] the SDGs Geospatial

[16] UNSD, The Global Statistical Geospatial Framework, available at: https://unstats.un.org/unsd/statcom/51st-session/documents/The_GSGF-E.pdf

Framework, the Strategic Framework on Geospatial Information and Services for Disasters.[17] Other efforts include activities to collect country data, and to test and improve newly developed data collections for the sake of measuring statistics in one or both of the Global Set and the SDG indicators. The DA14 project starting in late 2023 shall endeavour to ensure that target countries can strengthen climate change and disaster-related statistics by 2025. This project shall span Asia-Pacific, Europe and Western Asia, Africa, and Latin America and the Caribbean.

104. PARIS21 delivered a presentation on lessons learned from PARIS21 on mobilising a climate change data ecosystem (CCDE). The demand for such a data ecosystem was outlined, as were the many relevant constituent parts, such as legislative frameworks, coordination mechanisms, plans and commitments, data sources, data systems, statistical products, and stakeholders. In dealing with unclear or diffused climate reporting, lack of climate change data at the local level, and insufficient resources, PARIS21 offers recommendations to build capacity and overcome these challenges through strategic planning for the CCDE. In this regard, Information derived from implementing the ESSAT, CISAT or the Global Set is valuable to inform the process. While making recommendations and helping Member States to strengthen their CCDE Framework, PARIS21 plans to apply the Global Set, the ESSAT and the CISAT.

Regional Activities

105. The ECE presented on capacity development in environment statistics and climate change statistics. Prioritisation of capacity development in regular expert meetings and the Joint Task Force on Environmental Statistics and Indicators were highlighted. The use of the FDES, SEEA, SDG indicators, and environmental statistics and indicators at sub-regional and national training workshops was emphasised. Other methodological work undertaken by UNSD such as the Manual of the Basic Set of Environment Statistics is also used in the capacity development work of the ECE. Mention of forthcoming work included projects as part of the DA 14th tranche running until 2025.

106. ECLAC presented on the main results of the DA12 project. This focused on efforts for Caribbean SIDS to compile relevant climate change and disaster indicators for evidence-based policies, work which spanned from 2020 to 2023. Thematically, there was a focus on environment, climate change and disaster statistics, and the project drew several conclusions related to evidence-based policy-making. Throughout the project the FDES was applied, and the project included an analysis of availability of statistics in each of the six components of the Basic Set of Environment Statistics. The ESSAT was also used to help identify data gaps, and to help inform national priorities. Availability within Member States of climate change and disaster statistics was also assessed, broken down by the same themes as in the Global Set; namely: drivers, vulnerability, mitigation, and adaptation. More capacity development activities are scheduled for 2023.

107. ESCAP presented on its capacity development work which includes focuses on climate change, disaster risk, and the SEEA, per Member States' needs and priorities. Future work will look further into Big Data.

[17] UNSD, Strategic Framework on Geospatial Information and Services for Disasters, available at: https://ggim.un.org/documents/un-ggim_strategic_framework_disasters_final.pdf

108. ESCWA, concerning its capacity development activities, presented on the UNSD/UNEP data collection of water and waste statistics to inform the FDES, and the climate change set of indicators (which is complementary to ESCWA countries and MEDSTAT V programme). Climate change statistics as well as SEEA Water and Energy accounts are all considered in ESCWA's capacity development work. The use of new technologies such as satellite imagery and geo-statistical information for informing indicators on the FDES, and data science for estimating data gaps in SDG environment indicators, were shown. For example, the ESCWA Geo Statistics Lab attempts to measure statistics concerning land cover, ecosystems and biodiversity, forests and so on, all of which are part of the Basic Set of Environment Statistics.

109. When presenting on its capacity development related to environment and climate change statistics, CARICOM provided information about its successes and challenges, recommendations, and future plans. There are plans for in-country technical support, regional capacity building workshops and meetings, and technical working groups. Recent successes include sustained production of environment statistics in countries and at the CARICOM Secretariat, and sustained production of environment statistics and climate change compendia at the national level (with two national publications during the most recent reporting period). Much of the statistics contained in the compendia draw from the FDES and the Global Set. Challenges include low response rates to data requests (which may be attributed to census activities) as well as an absence of environment statistics personnel within NSOs.

110. COMESA gave a presentation on environment and climate change statistics in the COMESA region, and how the mandates of the UN Statistical Commission may influence its work planning for capacity development. As such, both the FDES (including all six components of the Basic Set of Environment Statistics) and the Global Set are considered by COMESA when it undertakes capacity development work. COMESA has been providing technical support to its Member States, which has included Kenya, in producing its first compendium of environment statistics and Zimbabwe in producing its climate statistics report. Burkina Faso, while not a member of COMESA but an ADF country also benefited from the technical support and their compendium is forthcoming. Both documents have utilised the Global Set. COMESA's capacity development work has also encouraged countries to apply both the ESSAT and CISAT.

Discussion

111. During discussion, colleagues mentioned how the use of CISAT and ESSAT could benefit Member States in their preparation for compiling the Global Set, for measuring SDG indicators, and for monitoring progress regarding the Sendai Framework. After applying the CISAT and ESSAT, a Member State is more easily able to identify the multiple uses of data and information that it already has.

Annex I

Conclusions and recommended actions

The Expert Group on Environment Statistics (EGES) proposed that the fifty-fifth session of the Statistical Commission approve the renaming of the group to the Expert Group on Environment and Climate Change Statistics (EG-ECCS). This is based on the recommendation in the forty-ninth session of the Commission, that the mandate of the EGES be expanded to cover more aspects of climate change statistics and indicators, also based on the expert group meetings increasingly addressing climate change statistics over the past years, and the close interrelationship between the two.

The EGES nominated Ms. Anjali Kisoensingh, General Bureau of Statistics, Suriname to serve as Vice-Chair to assist in the management of the 10th EGES and beyond.

Session One: Climate Change Statistics and Indicators

1. UNFCCC introduced the requirements for reporting by all Parties under the Paris Agreement and the new reporting tools under the Enhanced Transparency Framework; underlined the usefulness of the Global Set for the reporting by Parties of the Paris Agreement; and recommended that NSOs enhance their cooperation with national authorities responsible for reporting climate change-related information to UNFCCC.
2. Experts encouraged further collaboration between UNSD, UNFCCC and other key partners, to contribute to the 'Together for Transparency' approach; promote the ETF reporting tools and expand statistical components, via the Global Set, capacity development and advocacy through joint event/side events, etc.
3. Experts concurred that due to close engagement with NSOs there will be more successful reporting and verification of the reported data (GHG emissions, policies and measures, support activities including financial support, etc.) by UNFCCC and therefore it will be in the best interests of countries to showcase their contributions to UNFCCC in order to improve the quality of data reported.
4. Experts noted that UNSD, in collaboration with UNFCCC, and other partners offer continuous capacity building in climate change statistics to support Member States in accordance with their needs and follow the progress made in implementation of the Global Set [also in session 4].
5. Experts encouraged Member States to apply the implementation support tools (CISAT and Implementation Guidelines) of the Global Set, to assist in establishing national programmes of climate change statistics, and to publish and disseminate climate change statistics reports.
6. Experts noted that Self-assessment Tools developed by UNSD are complementary to different processes and other tools (CCDE by PARIS21, European Green Deal) and can be used to bring visibility to environment and climate change areas into their NSDS and other planning processes.
7. Experts noted the progress made on the development or refinement of Tier 3 indicators and also remained cognizant that further work is dependent on the complexity of the indicator, the number of specialists involved, and the resources required. Therefore, experts recommended that UNSD continue collaboration with specialized agencies on prioritized topics to revise the

methodology development and implementation support on the Global Set of Climate Change Statistics and Indicators in a balanced way.

8. Experts noted the important methodological developments in the areas of climate and health led by the UK, and climate and gender led by IAEG-GS and UN Women discussed in dedicated group work sessions and further encouraged Member States to integrate gender, health, disasters and other statistical domains with environment and climate change statistics. Experts recommended that in these specialised areas, UNSD and the above partners set up the needed processes to review the methodological advances and incorporate the corresponding updates in the Global Set as appropriate.

9. Experts agreed that the work on indicators with detailed metadata from the Asia-Pacific region is suitable for review for updates of the Global Set, especially where similarities are identified. Experts also agreed to continue the discussion whereby best opportunity is taken to incorporate gender and climate change questions into existing or specialised household surveys, noting that best placed are data collection exercises where sampling allows for interviewing two members of opposite sexes in the same household. Other topics (which are currently not included in the set of indicators for the Asia-Pacific region) were also considered, including migration, crime and environmental concerns.

10. Experts noted that climate and health is an important topic with data deficiencies both in terms of quality and time series in most Member States, and therefore it should be prioritized on the agenda of national governments for the production of climate-related statistics. Likewise, the topic needs to be prioritized at international level.

11. Experts appreciated the outcome of the pilot survey on the implementation of the Global Set, provided inputs for its finalizations and recommended that UNSD improves the survey taking into account the inputs from the group work sessions.

12. Experts agreed that UNSD continues collecting national examples of Member States implementing the Global Set and develop a hub of national practices and examples of sets of climate change indicators that could be made public.

13. EGES underlined the importance of NSOs in coordinating or contributing to the compilation of national communications (such as the GHG inventories), while recognising that the specific expertise lies in various sectors or line ministries and specialised agencies.

14. Experts reiterated the need for countries to invest in their national statistical systems, to increase the availability of climate change statistics through specialised surveys/other data collection tools and integrate climate and environmentally-related questions in population and housing censuses, agricultural censuses and other household or establishment based surveys.

15. Experts encouraged Member States to develop and strengthen environment statistics, which are necessary for the effective monitoring of key aspects of climate change and recommended that countries in the early stages use the FDES to guide the development of climate change statistics and indicators, given the close interrelationship between environment statistics and climate change statistics [also in session 3].

16. Experts highlighted the importance of high-level buy-in and/or inclusion of climate change statistics in NSDS, or other national strategies. Therefore, experts recommended that Member States ensure that high-level management is assigned for climate change statistics at appropriate levels.

Session Two: Environment Statistics Data Collection

Water Statistics conclusions/summary

17. Observing outcomes shared from the 2023 United Nations Water Conference of March 2023, experts noted the undeniable link between policies concerning water and other themes such as climate change, environment and health and agreed to advocate for such links when liaising with policy makers.

18. The synthesis report of the Water Conference highlighted that essential data gaps remained at all levels national, regional and global. Experts also noted that inadequate data concerning water is a significant issue and that, there remains so much that is unknown such as the impact of climate change upon river basins, water tables, etc. To improve the understanding of such phenomena, the availability of data should be prioritized.

19. Experts noted that in order to keep abreast of fast-changing phenomena such as those related to climate change and natural disasters, water statistics will invariably need to be refined, and there will be demand for methodological research as new phenomena evolve. To this end, basic water statistics (even those that have been collected for decades) require improvement in their metadata (e.g., water use, and how it may be measured in volume or via permits, etc.). Aggregation to national level should be sought, as well as disaggregation to various other levels, per policy demands, such as river basin, provincial/state, etc.

20. Experts strongly encouraged countries to formalise and include in the programmes of work of their National Statistical Office, Ministry of Environment, Ministry of Water and any other relevant stakeholder, the time and resources required to provide a response to the various international questionnaires. To this end, multi-stakeholder platforms of communication within Member States are strongly encouraged. Experts noted the value of the National Statistical Office in arranging specific formal mechanisms, such as memoranda of understanding and other data sharing protocols when liaising with line ministries.

21. Experts concluded that the utilisation of the international questionnaires has been significantly enhanced, especially since the enactment of the SDGs in 2015. Beyond the SDGs, several other policy demands and statistical frameworks, such as the FDES, the Global Set of Climate Change Statistics and Indicators, and SEEA Water, call for country-owned data sourced via international questionnaires.

22. Experts noted the policy demand for volumes of wastewater, their polluting ability, and scope for reuse in certain purposes. For aiding countries in their understanding of how the data they report may be used for international policy agendas, diagrams demonstrating compilation methods of indicators such as SDG indicator 6.3.1 may be added to the UNSD/UNEP Questionnaire on Environment Statistics.

23. Experts noted the importance of strengthening the linkage between water statistics and water accounts and appreciated that modification of international questionnaires on water statistics is taking place to the extent possible.

24. Experts agreed that international agencies (WHO, UN-Habitat, UNSD, FAO, OECD and Eurostat) will continue close collaboration on harmonising data collection, bearing in mind the cost and burden when multiple questionnaires on water statistics are sent to Member States.

25. Experts agreed to be mindful of emerging data sources such as earth observations in conjunction with statistics to inform monitoring of phenomena related to water as well as other considerations such as gender and poverty.

26. Experts noted that UNSD will welcome dialogue on response rates, quality and quantity of data disseminated with a view to increasing supply of data sourced from the Questionnaire. In an effort to boost response rates, UNSD may undertake analyses of past response rates by region, by theme, and continue to welcome Member State requests for bilateral conversations concerning the UNSD/UNEP Questionnaire on Environment Statistics.

27. Experts agreed that UNSD should continue to consider revising existing variables collected via the Questionnaire per demand of key stakeholders in advance of the 2024 data collection cycle.

28. Experts agreed that UNSD should continue to organize information sessions to discuss technical issues concerning the Questionnaire among countries and international organisations where specialized expertise applies (e.g., UNEP, FAO, WHO, UN-Habitat).

Waste Statistics conclusions/summary

29. Experts requested that countries continue to provide waste data to the international questionnaires, with consideration for policy-related demands of key stakeholders (e.g., UNEP's demand for SDG indicators 12.4.2 and 12.5.1; UN-Habitat's demand for SDG 11.6.1; UNITAR's demand for e-waste data).

30. Experts noted UNEP's offer to be contacted for methodological and data compilation questions concerning SDG indicator 14.1.1(b) (coastal eutrophication and plastic debris density), which may contribute to the development of statistical guidance on measuring flows of plastic.

31. Experts noted the value of data from international questionnaires being used for policy purposes such as e-waste data which is also analysed, harmonised and validated by UNITAR.

32. Experts encouraged Member States to develop programmes of work on waste statistics while being cognizant of recent advancements in waste streams, especially e-waste and food waste. Justification for demand of such statistics may reference SDG-related and other policy demands.

33. Experts noted the success of increasing response rates via multilateral and bilateral conversations organised together with UNSD. For the 2024 data collection, experts may express interest in continuing in this manner.

34. Experts highlighted the importance of, when liaising with specialised data suppliers, to inform on the value of their data and its practical application to SDG-related and other policy demands.

Other data collection and reporting requirements (data collection instruments)

35. Experts noted that there has been progress on climate and disasters surveys in the Asia-Pacific region which will allow the Pacific Community and UN Women to compare and complement their surveys.

36. Experts encouraged Member States to maintain the traditional environment-related questions such as on sanitation, sources of water and energy in population and housing censuses (PHCs), to inform national and international programmes.

37. Experts urged Member States to consider identifying statistics and indicators from the Global Set of Climate Change Statistics and Indicators which can be sourced from PHCs and specialized surveys.

38. Experts encouraged Member States to develop specialized environmental/climate change surveys and/or include related questions in PHCs (2030 round) and household surveys to increase data availability and data disaggregation, raise awareness of climate change and seek public opinion.

39. Experts noted the importance of producing analytical reports based on the results of the new questions, such as those on climate change, being added to Population and Housing censuses.

40. Experts encouraged Member States to continue sharing national examples of censuses and surveys on environment-related and climate change themes to UNSD for public information at: https://unstats.un.org/unsd/envstats/censuses/.

41. Experts proposed the formation of a working group of experts to develop a core set of climate change questions which can inform the Global Set as well as the 2030 Sustainable Development Agenda and Beyond.

42. Experts proposed that the core questions/topics developed by the working group of experts be discussed with the UN Expert Group responsible for the revision of the UN Principles and Recommendations for conducting PHCs rev 3, for consideration prior to its submission to the 56th session of the Statistical Commission in March 2025.

Session Three: Environment Statistics Toolbox

43. FDES offers a comprehensive guide to prepare statisticians to respond to multiple data demands, most of all MEAs, also SDGs, climate and disasters, also, for data collections on water and waste. International data collection processes often have overlapping topics therefore the statistician needs to be able to understand the overlaps and address them under the National Statistical System (NSS). Experts noted that if the country is starting work on environment/climate change statistics it may be better to start with FDES/ESSAT, then proceed with Global Set/CISAT (120 statistics from the FDES are in the Global Set).

44. Experts noted that the remaining topics in the FDES require more research and scientific input for completion, as illustrated by the experience with the methodology sheet on freshwater quality. Deeper and specialized expertise will be required to develop further methodology sheets of the Manual.

45. Experts encouraged Member States, and in particular NSOs, to consider application of the Environment Statistics Self-Assessment Tool (ESSAT) for conducting comprehensive reviews of their environment statistics programmes of work. UNSD invited Member States to share reference and more information about their experiences with environment statistics, including what other guidance, frameworks and tools are applied in Member States.

Session Four: Capacity development in environment statistics and climate change statistics

46. Experts noted that UNSD and other international and regional institutions are delivering multiple capacity development activities on environment, climate change and disaster statistics, in partnership with specialized agencies and other development partners, yet further engagement and cooperation is encouraged given limited resources and the need to minimize duplication of effort. UNSD proposed to initiate work on a strategy for the international and regional organizations to strengthen capacity development activities on environment and climate change statistics in Member States.

47. The UN Development Account 14th tranche project on Resilient and Agile NSS, workstream 2.1 facilitates the integration of climate change, environment and disaster statistics in a geospatially-enabled manner as it engaged the key entities in this effort. Experts appreciated the efforts of the United Nations of implementing Development Account projects (10th, 12th, 14th) and encouraged continuation of these activities and the production of success stories in partnership with relevant institutions.

48. Experts appreciated that the PARIS21 CCDE initiative highlighted that good climate change statistics and information required to build capacity of the NSS - not only of NSO or specific Ministries. The PARIS21 tools introduce the non-state actor engagement and strategic planning tools for the whole CCDE. Experts encouraged further collaboration between UNSD and PARIS21 to keep strengthening the implementation support tools.

49. Experts noted that international agencies appreciate sharing their capacity development experiences among each other and with Member States which contributes towards enhanced complementarity and consistency of these activities at the global level. Regional Commissions and other regional organizations highlighted scarce budgets as a key limitation to capacity development, the need to enhance the role of multi-source data collection, data science, new technology, big data and spatial data (with time-series) in such a novel statistical area of work.

Annex II

Tenth Meeting of the Expert Group on Environment Statistics

(Virtual)
New York, 3, 4, 6 and 10 October 2023
Final Agenda

Tuesday, 3 October 2023

Opening session

08:00 – 08:30 Opening and objectives of the meeting

Welcome speech by Director, UNSD

Logistical matters

Adoption of the agenda

Session One: Climate Change Statistics and Indicators

08:30 – 9:15 **Implementation of the Global Set**

a) Outcome of the survey on 'State of the implementation of the Global Set of Climate Change Statistics and Indicators' (UNSD, 12 min)
b) New requirements for transparency (UNFCCC, 13 min)
c) Discussion (plenary, 20 min)

Coffee break 10 mins

9:25 – 11:00 **Related inter-governmental, regional and national initiatives on climate change statistics**

a) Updates from FAO: agriculture, forestry, land use, emissions from LULUCF (FAO, 10 min)
b) Work of the Inter-Agency and Expert Group (IAEG) on Disaster-related Statistics; implementation of the Sendai Framework in countries (UNDRR/ESCAP, 10 min)
c) Updates on International Programme for Action on Climate (IPAC) (OECD, 10 min)
d) Updates on the work of the UNECE Task Force on the role of NSOs in achieving national climate objectives (ECE, 10 min)
e) Discussion (plenary, 15 min)

National experiences

a) Country experiences on implementation of the Global Set (Brazil, Cabo Verde, Netherlands, Suriname, 4 min each)
b) Discussion on best practices on climate change statistics (plenary, 20 min)

Wednesday, 4 October 2023

Session One: Climate Change Statistics and Indicators: Group work

8:00 – 9:00 **Development of methodology and implementation support for the Global Set**

a) Overview of methodological and implementation support updates (UNSD, 8 min)
b) Climate and health (UK-ONS, 8 min)
c) Climate and gender (Advisory Group to IAEG-GS, 8 min)
d) Applications of CISAT (ECLAC / ECLAC consultant, 8 min)
e) Applications of Implementation Guidelines and roadmaps (COMESA consultants, 8 min)
f) Discussion and Introduction to group work (UNSD, 20 min)

09:00 – 10:10 **Group work according to the above thematic areas, implementation guidelines and CISAT**

- Introduction to key issues and options in each group (10 min)
- Review and discussion (40 min)
- Preparation of reporting to plenary (20 min)

Coffee break 10 min

10:20 – 11:00 **Plenary: Conclusion of group work and priorities for future work**

a) Group work conclusions (5 min each)
b) Discussion (plenary, 15 min)

Friday, 6 October 2023

Session Two: Environment Statistics Data Collection

08:00 – 09:20 **Water Statistics**

a) Keynote presentation on Water Conference, implications on new data requirements (WHO, 10 minutes)
b) UNSD showcase of practical use of country owned water data for SDGs (UNSD, 10 min)

c) Panel discussion (40 min total: OECD, FAO, WHO, UN-Habitat, State of Palestine, Ireland)
d) Plenary discussion with audience (20 mins)

Coffee Break 10 mins

09:30 – 10:30 **Waste Statistics**

a) Recent developments on waste statistics (UNEP /UNITAR /UN-Habitat, 5 min each)
b) UNSD showcase of practical use of country owned waste data for SDGs (UNSD, 10 min)
c) National successes and challenges of waste data (Bangladesh, Mauritius, 10 min each)
d) Discussion (15 mins)

10:30 – 11:10 **Other data collection and reporting requirements (data collection instruments)**

a) Data sources used in environment and climate change statistics (UNSD, 5 min)
b) Developments in survey module on climate change (Pacific Community, 8 min)
c) Tanzania's experience on climate change related data collections via Population and Housing Census (Tanzania, 8 min)
d) Discussion (20 min)

Tuesday, 10 October 2023

Session Three: Environment Statistics Toolbox

08:00 – 08:35 **FDES and the Basic Set of Environment Statistics**

a) Implementation of the FDES and national compendia on environment statistics (UNSD, 4 min)
b) ESSAT applications (UNEP, 8 min)
c) Discussion (plenary, 15 min)

Session Four: Capacity Development in Environment Statistics and Climate Change Statistics

08:35 – 9:50 **Capacity development**

a) Capacity development for environment and climate change statistics (UNSD, 10 min)

b) Activities on Climate Change and Disaster-related statistics under the DA 14 project (UNEP/ESCAP, 10 min)
c) Other related initiatives
    - Lessons-learned from PARIS21 on mobilizing climate change data ecosystems (PARIS21, 8 min)
d) Activities led by regional institutions:
    - Updates on capacity development activities from ECE (ECE, 4 min)
    - Updates on capacity development activities from ECLAC, including outcomes from DA12 project and beyond (ECLAC, 4 min)
    - Updates on capacity development activities from ESCAP (ESCAP, 4 min)
    - Updates on capacity development activities from ESCWA (ESCWA, 4 min)
    - Updates on capacity development activities from the CARICOM Secretariat (CARICOM, 4 min)
    - Climate change statistics development in COMESA region (COMESA, 4 min)
e) Discussion (25 min)

Coffee break 20 mins

Session Five: Discussion of Priorities and Conclusions

10:10 – 11:15 **Review and decisions on future actions**

Annex III

List of Participants

Name	Title	Organization / Office	Country
Nelli Baghdasaryan	Member of State Council on Statistics	Statistical Committee	Armenia
Diana Harutyunyan	Climate Change Programme Coordinator	Ministry of Environment	Armenia
Md. Rafiqul Islam	Environment, Climate, Disaster and National Accounts Statistics	Bangladesh Bureau of Statistics	Bangladesh
Md Mahbubul Alam Siddiquee	Deputy Secretary	Bangladesh Bureau of Statistics	Bangladesh
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Linh Nolan	Statistician	Central Statistics Office	Ireland
Deirdre Mahony	Assistant Director General	Central Statistics Office	Ireland
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Cherice Bryan	Environment Statistician	Statistical Institute of Jamaica	Jamaica
Enas Alarabyat	Head assistance of environment statistics division	Department of statistics	Jordan

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