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# **Climate change statistics**

## **Report of the Secretary-General**

## Summary

The present report was prepared in accordance with Economic and Social Council decision 2023/325 and past practices by the Statistics Division of the Department of Economic and Social Affairs of the Secretariat, in collaboration with the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC). The report contains an update on the work of the Division with regard to climate change statistics, in particular the development of implementation support tools for the global set of climate change statistics and indicators, which was adopted by the Statistical Commission at its fifty-third session. The report also presents updates on collaboration with key partner institutions, and advances towards the coordination of activities on climate change statistics. The implementation of the global set presents outcomes of a pilot survey with several national responses which illustrate the development of national programmes of climate change statistics. Working progress on methodology development is also presented, in prioritised topics on the integration of climate change and health statistics and integration of climate change and gender statistics. The report recommends actions to be taken by the Commission, as set out in paragraph 48 of the present report, that focus on, inter alia, streamlining its work on environment and climate change statistics, encouraging use of the Global Set on Climate Change Statistics and Indicators, increasing collaboration between national statistical offices and national authorities responsible for reporting climate change to UNFCCC, and advocating for greater investment in climate change statistics.

\* E/CN.3/2024/1.

### I. Introduction

1. At its fifty-third session, held from 28 February to 2 March and 4 March 2022, the Statistical Commission adopted decision 53/116 (see E/2022/24-E/CN.3/2022/41), in which it:

(a) Welcomed the report of the Secretary-General,<sup>1</sup> which presents the global set of climate change statistics and indicators;

(b) Adopted the global set as the framework for climate change statistics and indicators to be used by countries when preparing their own sets of climate change statistics and indicators according to their individual concerns, priorities and resources, while noting the need for further methodological development for selected indicators, taking into account the 2030 Agenda for Sustainable Development;<sup>2</sup>

(c) Recognized that, while the global set was designed to meet the needs of all countries following a global consultation, it remained complementary to the Conference of European Statisticians' set of core climate change-related indicators and to other regional sets, that may include more region-specific indicators, to encourage harmonization across all levels;

(d) Expressed its support for comprehensively reviewing the global set in five years from its adoption as was done in the Sustainable Development Goal indicators process, and encouraged more regular reviews by the Expert Group on Environment Statistics in view of continuous harmonization with the ongoing development of related statistical areas, such as biodiversity, disasters, environmental-economic accounting and ecosystem accounting, gender equality and the empowerment of women and girls, and related regional sets such as the Conference of European Statisticians' set or thematic sets of climate change indicators. At the same time, it can also be considered to prioritize and explain the relationships between different indicators and develop a short list with recommended indicators out of the large number of 158 indicators;

(e) Urged the international statistical community to expand its capacity development efforts with regard to climate change statistics by fostering closer collaboration and coordination among the multiple agencies involved in the process;

(f) Encouraged national statistical systems to invest in the development of climate change statistics, and strengthen environment statistics and accounts, using the Framework for the Development of Environment Statistics and the System of Environmental-Economic Accounting, as a complementary basis for developing climate change information, given their close interrelationship;

(g) Encouraged the enhancement of collaboration between national statistical offices and national authorities responsible for reporting climate change -related information to the secretariat of the United Nations Framework Convention on Climate Change, given the increased and more diverse data requirements for the implementation of the Paris Agreement,<sup>3</sup> as well as climate-related Goal indicators;

(h) Expressed its support for the continuation of activities undertaken by the Statistics Division and the secretariat of the United Nations Framework Convention on Climate Change and other key partners to strengthen the link between statistics and policy, such as joint capacity-building efforts and training with other partners;

(i) Urged the donor community to mobilize resources to enable capacity building in environment and climate change statistics in developing countries;

(j) Approved the proposed workplan, and requested the Statistics Division to update the Commission in two to three years.

## II. Recent Activities

<sup>&</sup>lt;sup>1</sup> E/CN.3/2022/17.

<sup>&</sup>lt;sup>2</sup> General Assembly, resolution 70/1.

<sup>&</sup>lt;sup>3</sup> See FCCC/CP/2015/10/Add.1, decision 1/CP.21, annex.

2. The triple planetary crisis<sup>4</sup>: climate change, pollution and biodiversity loss, is threatening the well-being and survival of millions of people around the world. Nonetheless, as highlighted at the 2023 SDG Summit<sup>5</sup>, the information and data on climate change needed to inform policy decision-making is still not readily available.

3. The Statistics Division of the Department of Economic and Social Affairs of the Secretariat (UN DESA) in collaboration with the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) developed the Global Set of Climate Change Statistics and Indicators (Global Set)<sup>6</sup> which was adopted at the fifty-third session of the Statistical Commission in March 2022. The Global Set serves as the statistical framework for monitoring and reporting climate action with suitable indicators to be used by countries when preparing their own sets according to their individual concerns, priorities and resources. The role of official statistics in developing climate change policies and reporting under UNFCCC and its Paris Agreement is expected to boost the quality assurance and comparability of reported data, political buy-in, dissemination and use of official statistics to inform policy decisions and assess the efficiency of these policies.<sup>7</sup> It is also expected to contribute to stronger accountability, transparency and preparedness of countries with less developed statistical systems to benefit from climate funds and resources. Further to the adoption, UN DESA in collaboration with the Expert Group on Environment Statistics (EGES)<sup>8</sup>, UNFCCC and key partners aim to: (a) explore ways for coordination of activities on climate change statistics and providing support for reporting of climate change information; (b) encourage and support countries in the implementation of the global set of climate change statistics and indicators via implementation support materials, capacity development activities and advocacy; and (c) refine the methodology of selected topics and contribute towards enhanced complementarity between global, regional and national initiatives.

4. The EGES met online in early October for its tenth meeting<sup>9</sup> which focused on the following topics: (i) Climate Change Statistics and Indicators; (ii) Environment Statistics Data Collection; (iii) Environment Statistics Toolbox; (iv) Capacity Development in Environment Statistics and Climate Change Statistics and (v) Discussion of Priorities and Conclusions. Among the conclusions the EGES recommended the renaming of the expert group to become the "Expert Group on Environment and Climate Change Statistics" (EG-ECCS). The EGES therefore 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 proposal is based on a decision of 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, on the expert group meetings increasingly addressing climate change statistics over the past years, and on the close interrelationship between the two areas.

#### A. Towards coordination of activities on climate change statistics

5. To support coordination of its work programme on environment and climate change statistics the UN DESA liaises closely with Member States and numerous stakeholders at international and regional level. This consultative approach seeks to align efforts on environment and climate change statistics with other related initiatives across the statistical community, while supporting Member States to collect and compile statistics that are relevant to common policy initiatives, internationally comparable, and applicable to international data collection efforts.

<sup>&</sup>lt;sup>4</sup> https://unfccc.int/news/what-is-the-triple-planetary-crisis

<sup>&</sup>lt;sup>5</sup> https://www.un.org/en/conferences/SDGSummit2023

<sup>&</sup>lt;sup>6</sup> https://unstats.un.org/unsd/envstats/climatechange.cshtml

<sup>&</sup>lt;sup>7</sup> https://unfccc.int/sites/default/files/resource/Benefits-of-Climate-Transparency\_2023.pdf

<sup>&</sup>lt;sup>8</sup> Approximately 131 experts from 34 countries and 22 international agencies took part in the tenth EGES meeting,

https://unstats.un.org/unsd/envstats/fdes/EGES10/Final%20Report.pdf

 $<sup>^9\,</sup>https://unstats.un.org/unsd/envstats/fdes_fdes_eges10.cshtml$ 

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6. For example, the adoption in 2015 of the 2030 Agenda for Sustainable Development,<sup>10</sup> the Paris Agreement,<sup>11</sup> and the Sendai Framework on Disaster Risk Reduction (DRR),<sup>12</sup> placed a strong demand for Member State-owned statistics on environment, climate change and disasters and statistics across these thematic areas tend to overlap. Links between climate action and sustainable development are drawn in the Paris Agreement and the 2030 Agenda that emphasises how climate change undeniably impacts upon sustainable development, while unsustainable development is unequivocally understood to cause further climate change. The Sendai Framework and the Paris Agreement have a nexus with respect to loss and damages as a consequence of climate change and disasters. Climate change considered as a driver of disaster risk is highlighted in the Sendai Framework, and the impact of this upon sustainable development is also well documented. UN DESA supports Member States to leverage the relationships across these data advocating for multiple use of the same source data and helping national experts to identify and address the overlaps systematically.

7. The UN system continues to leverage the EGES as a forum for peer review and alignment of its programme of work on climate change statistics along with other international and regional entities. Main methodological advances and capacity development led by these entities were reviewed at the tenth meeting of the EGES. UN DESA, the Food and Agriculture Organization of the United Nations (FAO), the Organisation for Economic Cooperation and Development (OECD), UNFCCC, the United Nations Office for Disaster Risk Reduction (UNDRR), the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), and the United Nations Economic Commission for Europe (UNECE) all presented their respective work programmes on climate change or related statistics with substantive and methodological advances, and proposed ways forward for collaboration (capacity development activities are discussed in section B).

- UN DESA described 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. It was noted that since the 2022 adoption of the Global Set by the Statistical Commission, several countries had made good progress based upon it and some countries had progressed because of other initiatives and projects.
- UNFCCC introduced the overall requirements for reporting by all Parties under the Paris Agreement, the Enhanced Transparency Framework (ETF) and its new reporting tools, and a tracking of countries' implementation of nationally determined contributions. The key and increasing role of official statistics contributing to preparedness, accountability and transparency was also highlighted. UNFCCC is developing the ETF reporting tools for all Parties to provide the necessary information under the Paris Agreement including the identification of a national set of indicators that could be traced back also from the Global Set. They further highlighted the joint work with UN DESA that led to the adoption of the Global Set by the Statistical Commission.
- FAO informed on emissions from Land Use, Land Use Change and Forestry (LULUCF) which showed the relationship between FAO agrifood systems and UNFCCC national GHG inventories, and LULUCF features as a component in FAOSTAT. FAO has a leading role in GHG estimation for food and agriculture at the international level, including LULUCF and more generally agrifood systems<sup>13,14</sup>. 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.
- UNDRR and ESCAP highlighted the work of the Inter-Agency Expert Group on Disaster-related Statistics and the implementation of the Sendai Framework. Notably, several of the Sendai indicators are replicated in the Global Set and the SDG indicators. As such, a global common framework for disaster statistics could help Member States strengthen their capacity in data collection, analysis and use, all the while being very applicable to the Global Set.
- OECD described 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 which is a

<sup>&</sup>lt;sup>10</sup> General Assembly, resolution 70/1.

<sup>&</sup>lt;sup>11</sup> https://unfccc.int/process-and-meetings/the-paris-agreement

<sup>&</sup>lt;sup>12</sup>https://www.preventionweb.net/files/43291\_sendaiframeworkfordrren.pdf?\_gl=1\*jkvzvo\*\_ga\*MjYxMTkwMjE3LjE2OTkzODQy ODI.\*\_ga\_D8G5WXP6YM\*MTY5OTM4NDI4NC4xLjAuMTY5OTM4NDI5Mi4wLjAuMA

<sup>&</sup>lt;sup>13</sup> https://www.fao.org/food-agriculture-statistics/data-release/data-release-detail/en/c/1661912/

<sup>&</sup>lt;sup>14</sup> One of the sources for the GHG estimates is the Statistics Division Energy Statistics Database which is available at: https://unstats.un.org/unsd/energystats/data/

foundational component of OECD's climate work. With an analytical approach to environmental data collection that is closely linked to policy responses and impacts, advances on key indicators of the OECD's work underline the alignment with the efforts led by UNFCCC and UN DESA.

• UNECE shared the work of its Task Force on the Role of National Statistical Offices in Achieving National Climate Objectives. The setup and design of the Task Force was shown and reference was made to earlier work on the creation of the Conference of European Statisticians' core set of climate change-related indicators (most of which are also included in the Global Set) as well as the development of the draft Guidance on the role of NSOs in Achieving National Climate Objectives, including chapters on mitigation and adaptation policies and their statistical needs.

8. Based on deliberations during the tenth meeting of the EGES, UN DESA, UNFCCC and other key partners agreed to collaborate further to contribute to the UNFCCC 'Together for Transparency' approach and promote the ETF reporting tools. This will enhance the understanding of the NSOs role at national level in reporting climate change information under the National Statistical System (NSS), via the implementation of the Global Set, capacity development and advocacy through joint activities such as side events. Such collaboration would increase transparency at both national and international level, support development of capacity within Member States, promote better informed policy decisions sourced from Member-State-owned official statistics, and benefit political acceptance, build institutional trust, and support the meeting of international obligations.

9. In its effort to promote consistency and streamlining of climate, environment and related statistics, the UN DESA, in collaboration with members of the Intersecretariat Working Group on Environment Statistics (IWG-ENV)<sup>15</sup>, has compiled inventories on capacity development and data collection activities in various topics related to environment statistics that are led by international and regional organizations.<sup>16</sup> An inventory of country and agency responses to the Global Consultation on the Global Set of Climate Change Statistics and Indicators has also been compiled by the UN DESA.<sup>17</sup> Part I of the Global Consultation for countries focused upon the institutional dimension of climate change statistics; inter-institutional collaboration; and technical assistance and training. Part I for international and regional agencies focused upon their activities on climate change statistics and indicators consisting of three sub-parts: data collection and production; methodology; and capacity development.

10. In addition to the inventories mentioned in paragraph 9, the Statistics Division continually engages in outreach with key stakeholders in a consultative manner, to ensure the scope is as comprehensive as possible. It provides an overview of activities being undertaken by the multitude of international and regional organizations which can facilitate communication, promote transparency and minimise duplication of efforts among these organizations and Member States. Given the close interrelationship between environment and climate change statistics and to promote the streamlining of both areas it is proposed to combine the environment statistics and climate change statistics reports to the Statistical Commission into a single agenda item with one annual report on environment and climate change statistics, as well as combined inventories.

11. Since the Statistical Commission itself presents a great opportunity for engagement with key stakeholders, the UN DESA holds annual side events along its margins. This has included a side event, Implementation of the Global Set of Climate Change Statistics and Indicators during the fifty-fourth session of the Statistical Commission in New York, March 2023.<sup>18</sup> This was a timely event, approximately 12 months after the adoption of the Global Set by the Statistical Commission, for the UN DESA, UNFCCC, UN Women, Pacific Community (SPC) and the United Republic of Tanzania to present to Member States how the Global Set can be practically applied, in conjunction with supporting tools, the Climate Change Statistics and Indicators Self-Assessment Tool (CISAT)<sup>19</sup> and the Implementation Guidelines.<sup>20</sup> UN

<sup>&</sup>lt;sup>15</sup> https://unstats.un.org/unsd/envstats/coordination

<sup>&</sup>lt;sup>16</sup> https://unstats.un.org/UNSDWebsite/statcom/session\_51/documents/BG-item-4e-EnvironmentStats-E.pdf

<sup>&</sup>lt;sup>17</sup> https://unstats.un.org/UNSDWebsite/statcom/session\_53/documents/BG-3m-GlobalConsultationontheGlobalSet-E.pdf

<sup>&</sup>lt;sup>18</sup> https://unstats.un.org/UNSDWebsite/events-details/un54sc-01032023-M-Implementation--of-the-Global-Set-of-Climate-Change-Statistics-and-Indicators

<sup>&</sup>lt;sup>19</sup> https://unstats.un.org/unsd/envstats/Climate%20Change/cisat.cshtml

<sup>&</sup>lt;sup>20</sup> https://unstats.un.org/unsd/envstats/Climate%20Change/Implementation Guidelines.pdf

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DESA plans to hold a side event further advocating the Global Set and continued progress on implementing it by Member States at the present session of the Statistical Commission.

#### B. Implementation of the Global Set

#### Implementation support materials

12. Taking into consideration the timeliness of the Statistics Division's work programme with respect to the adoption of the Global Set<sup>21</sup> the present time is opportune to emphasize implementation. To this end, the Implementation Guidelines and CISAT, prepared by the Statistics Division in collaboration with the EGES, are both stressed in capacity development endeavors of the Statistics Division and other key partners. In addition, the EGES highlighted that other guidance and tools have also been used in countries. For example, some countries' experience in applying the Framework for the Development of Environment Statistics (FDES) has contributed to their preparedness to apply the Global Set.

13. The Implementation Guidelines aim to help improve monitoring of climate change, its impacts and response actions through communicating the benefits of official statistics to national authorities responsible for reporting climate change-related information to UNFCCC and by guiding NSOs to increase their engagement in the area of climate change. The Guidelines refer to relevant frameworks, methods, guidelines and handbooks to facilitate closer engagement between these two types of institutions. They specify key steps needed to set up national processes to produce climate change statistics in response to national policies while striving to improve the comparability of data internationally, thus contribute to improved climate change monitoring, as well as the way countries progress toward mitigation and adapt to adverse effects.

14. While Member States implement the Global Set at national level, the data they are compiling will contribute to cross-country comparability on climate change statistics through data collections by international organisations. Compilation by international organisations is better informed by country efforts to apply the Global Set, which contains widely agreed definitions and methodological guidance presented in its Metadata.<sup>22</sup> Brief reference of the main statistical methods applied to define the statistics and indicators in the Global Set refer the following sources: Intergovernmental Panel on Climate Change 2006 guidelines<sup>23</sup>; FDES<sup>24</sup>; Sustainable Development Goal indicators metadata<sup>25</sup>; Sendai Framework for Disaster Risk Reduction 2015-2030<sup>26</sup>; the Conference of European Statisticians set of core climate change-related indicators metadata<sup>27</sup>; the International Recommendations for Energy Statistics<sup>28</sup> and the System of Environmental-Economic Accounting<sup>29</sup>. The key use of Member States data is to fulfil international reporting obligations, especially for the enhanced transparency framework and nationally determined contributions under the Paris Agreement.

15. The tenth meeting of the EGES acknowledged again that close engagement with NSOs allows for more successful reporting and verification of reported data such as on GHG emissions, policies and measures, adaptation and support activities including financial support, by UNFCCC and therefore it will be in the best interest of countries to showcase their contributions under the Paris Agreement in order to improve the quality of data reported.

16. Throughout the tenth meeting of the EGES, the importance of NSOs in coordinating or contributing to the compilation of national communications, biennial reports and especially GHG inventories, while recognising that the specific expertise lies in various sectors or line ministries and specialised agencies, was stressed. An added value of an

<sup>29</sup> https://seea.un.org/

<sup>&</sup>lt;sup>21</sup> https://unstats.un.org/unsd/statcom/53rd-session/documents/2022-41-FinalReport-E.pdf

<sup>&</sup>lt;sup>22</sup> https://unstats.un.org/unsd/envstats/Climate%20Change/cisat.cshtml

<sup>&</sup>lt;sup>23</sup> https://www.ipccnggip.iges.or.jp/public/2006gl/pdf/1 Volume1/V1 1 Ch1 Introduction.pdf

<sup>&</sup>lt;sup>24</sup> https://unstats.un.org/unsd/envstats/fdes.cshtml

<sup>&</sup>lt;sup>25</sup> https://unstats.un.org/sdgs/metadata

<sup>&</sup>lt;sup>26</sup> https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030

<sup>&</sup>lt;sup>27</sup> https://statswiki.unece.org/pages/viewpage.action?pageId=285216611

<sup>&</sup>lt;sup>28</sup> https://unstats.un.org/unsd/energystats/methodology/documents/IRES-web.pdf

NSO being central to such a process is that the link between statistics and policy concerning climate change can be well established. Such efforts may call for Member States 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.

17. To gauge implementation of the Global Set and the development of climate change statistics in general, UN DESA administered a pilot survey to members of the EGES prior to its tenth meeting. The survey was based on questions relating to Annex 1 of the Implementation Guidelines. Responses showed that countries' application of the FDES had contributed to positive answers concerning the Global Set. Furthermore, since the 2022 adoption of the Global Set, several countries have made good progress in its implementation and some countries have progressed because of other initiatives and projects such as the Conference of European Statisticians' core set of climate change-related indicators, European Green Deal<sup>30</sup>, IMF G20 Data Gaps Initiative<sup>31</sup> and PARIS21 Climate Change Data Ecosystem (CCDE).<sup>32</sup> Experts expressed appreciation for the outcome of the pilot survey, provided inputs towards its finalization and recommended that the UN DESA consider inputs from the tenth meeting of the EGES in refining the survey.

18. At the tenth meeting of the EGES experts met in a dedicated group work setting to review findings of the pilot survey on the Status of the Implementation of the Global Set. The conclusions from the review provided several insights such as: inter-institutional collaboration was important for countries to successfully report on climate change statistics; committees were useful in creating networks to foster collaboration and discuss the statistics and indicators needed at the national level; high-level buy-in and/or inclusion of climate change statistics in the National Strategy for the Development of Statistics (NSDS), or other national strategies, was important.

19. Alongside the implementation guidelines, the CISAT, comprising two parts, an introduction and accompanying metadata, gives Member States an opportunity to undertake a thorough and detailed assessment of the statistics and indicators in the Global Set, while allowing for prioritization of nationally relevant indicators and statistics. Across regions, several countries have already gained experience in applying the CISAT. UN DESA has drawn on insights shared by implementing countries that 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. 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.

20. At another group session of the tenth meeting of the EGES, experts reviewed country experiences with the CISAT and noted that it was very useful in assessing data gaps and data quality relative to existing data sources e.g. surveys, administrative data. They also shared key points derived from its application including: exploring the use of non-traditional data to fill data gaps; details on relevant parts used by national institutions; the need for a strong national committee with adequate resources and representing the various prioritised topics; the challenge to engage with specialised national agencies; and the need for communication to exchange lessons and expertise regionally. It was suggested that a national set of indicators be selected with the help of a strong committee representing the various nationally-prioritised 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 national strategies. Further, it was noted that self-assessment tools developed by the UN DESA are complementary to different processes and other tools, such as the new ETF reporting tools developed by UNFCCC, the Climate Change Data Ecosystem (CCDE) by PARIS21, and the

<sup>&</sup>lt;sup>30</sup> https://www.consilium.europa.eu/en/policies/green-

 $deal/\#:\sim: text = The\%20 European\%20 Green\%20 Deal\%20 is\%20 a\%20 package\%20 of, prosperous\%20 society\%20 with\%20 a\%20 moder n\%20 and\%20 competitive\%20 economy$ 

<sup>&</sup>lt;sup>31</sup> https://www.imf.org/en/News/Seminars/Conferences/DGI/about#:~:text=In%202009%2C%20the%20G20%20Finance%20Minist ers%20and%20Central,Board%20%28FSB%29%20and%20the%20International%20Monetary%20Fund%20%28IMF%29 <sup>32</sup> https://www.paris21.org/search?text=ccde

European Green Deal, and can be used to bring visibility to environment and climate change areas into a Member State's NSDS and other planning processes.

21. Member States were encouraged 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. UN DESA continues to welcome Member States' climate change statistics reports compiled via application of the Global Set, and shares such efforts publicly on its website.<sup>33</sup>

### Capacity development

22. UN DESA, in collaboration with UNFCCC, and other partners offer continuous capacity development in climate change statistics to support Member States in accordance with their needs and follow the progress made in implementation of the Global Set and other support mechanisms and implementation support guidance, including the FDES. UN DESA continues to receive country requests from different regions. Responses to these take various forms including bilateral and multilateral consultations, reviews and discussions, and in-country missions.

23. In order to promote effective participation by all countries in the measurement, reporting and verification (MRV) arrangements under the UNFCCC, and in the ETF under the Paris Agreement, concrete and effective support to developing countries is fundamental. In this way, the UNFCCC secretariat provides a broad range of support opportunities to developing countries with a view to enhancing their capacities, promoted also by some UNFCCC constituted bodies and other multilateral institutions and non-governmental organizations. These include direct support in preparation of national transparency reports (e.g., National Communications, Biennial Transparency Reports) and in the development of national GHG inventories, the provision of financial and technical support and assistance, the development of knowledge materials, and the provision of training programmes, among others.

24. UN DESA and key partners continually receive feedback from countries in different regions on developments including updates on the self-assessment, new publications, establishments of working groups or committees, projects and new focal points or contact persons in climate change statistics as well as requests for various kinds of support to accelerate progress. Some of the key activities where UN DESA has organized or contributed to with other international and regional organizations are described below either through online or onsite support.

#### Continuous online support

25. Through its Statistics Division, UN DESA continues to provide online support to Member States, including bilateral and multilateral consultations, reviews, webinars, and workshops, among others. In the past year, UN DESA has supported Suriname to review their first climate change compendium; aided Grenada in finalisation of an environment compendium which includes some climate change statistics; and reviewed inputs towards Uganda's strategy for the development of an environment and climate change statistics programme. Under the Development Account 14th tranche project 'Statistics and Data Project - Resilient and agile National Statistical Systems (NSS) to meet post-COVID-19 data needs to recover better' (DA14 project), workstream 2.1 is being led by United Nations Environment Programme (UNEP), and ESCAP and facilitates the integration of climate change, environment and disaster statistics in a geospatially-enabled manner. Under this workstream, several organizations, including UN DESA, have provided support to 61 Member States through two global webinars aimed at increasing preparedness of countries to respond to demands for statistics related to climate change and disasters. Through the DA 12th tranche project led by Economic Commission for Latin America and the Caribbean (ECLAC), UN DESA has provided support to national workshops in Antigua and Barbuda, Dominica, St Kitts and Nevis, Saint Lucia, St Vincent and the Grenadines and Suriname, and to a regional

<sup>&</sup>lt;sup>33</sup> https://unstats.un.org/unsd/envstats/climatechange\_reports.cshtml

workshop in Chile. The Department, through its Statistics Division, has also contributed to workshops organized by ECLAC in Cuba, Dominican Republic, Ecuador and Mexico City.

#### Missions and onsite support

26. In response to various requests from Member States, UN DESA continues to provide support through missions and other onsite interventions. During a mission to Peru organized by UN DESA in collaboration with ECLAC, the National Institute of Statistics and Information (INEI) and the Ministry of Environment (MINAM) of Peru, fundamental inputs were provided to initiate the development of a national programme of climate change statistics and indicators. Stakeholders were brought together in a workshop where hands-on training on priority topics related to climate change, using the Global Set, was provided. At a regional workshop organized by the Common Market for Eastern and Southern Africa (COMESA) for 37 African Fund countries, the UN DESA provided overall substantive support. The workshop significantly referenced the Implementation Guidelines, the CISAT and the Global Set to help improve the monitoring of climate change statistics. Several other international and inter-governmental organizations, including UNFCCC and UNEP, also participated in the workshop. Through the DA12 project, UN DESA has worked jointly with ECLAC to support Antigua and Barbuda, Belize, Dominica and Grenada, on utilisation of the Global Set. Similar efforts were also undertaken with ECLAC through regional-level workshops. Working with UNEP and UNDRR in Lesotho and with UNEP, UNDRR and UNDP in Cameroon. UN DESA has raised awareness and provided training on effective use of the Implementation Guidelines, CISAT, the Global Set as well as the Sendai Framework. Through an initiative from PARIS21 on the CCDE approach, support was provided to Belize, Grenada, Lao People's Democratic Republic and Senegal where complementarity and synergies with the materials developed by the Statistics Division were identified. The PARIS21 CCDE initiative highlighted that good climate change statistics and information required the capacity of the NSS, and not only of the NSO or specific ministries.

27. UN DESA has also worked with the UNFCCC secretariat and other partners to carry out several country workshops on improving energy balances and energy statistics for supporting countries to report under the ETF of the Paris Agreement. An extensive quality assessment has been developed by UNFCCC and UN DESA on which these events are based. The main objective of this initiative is to improve the institutional arrangements and the technical capacity of developing countries regarding their national energy statistics and balances. A robust energy data system reinforces transparency in reporting national GHG inventories to UNFCCC.

28. Presentations were given and discussions took place on capacity development at the tenth meeting of the EGES that provided an overview of the various activities being undertaken in environment statistics and climate change statistics by international and regional organizations namely UNECE, ECLAC, ESCAP, Economic and Social Commission of Western Asia (ESCWA), UNEP, PARIS21, The Secretariat of the Caribbean Community (CARICOM) and COMESA. Providers of capacity development appreciated 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. An updated inventory of capacity development activities of the organizations will be compiled to facilitate information sharing.

29. Member States expressed their appreciation for the efforts of the United Nations of implementing Development Account projects, as well as capacity development activities carried out by other partners and projects and encouraged continuation of such efforts in partnership with relevant institutions.

#### C. Methodological Development

30. Following the established sequence of events when the Statistical Commission adopts a methodology, continual review, refinement and advancement of that methodology is necessary, especially for the indicators and statistics included in the Global Set at tier 3. Other methodological and structural updates are necessary too,

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including new policy and reporting references, new statistical guidance and frameworks, and upgrades from tier 2 to tier 1, etc. Continued methodological research and development in support of the Global Set builds on Member States' experiences in developing climate change statistics. This aids Member States as they consider how best to apply the Global Set to their needs. In this manner, the EGES has incorporated into its agenda the efforts of Member States, and the participating international organisations to advance research in support of the Global Set. While such efforts call upon significant human and financial resources, the Statistics Division continues to collaborate with key stakeholders as methodologies in support of the Global Set evolve, such as those concerning health, gender equality and disasters.

### Climate change and gender statistics

31. A previous mandate from the Statistical Commission (requesting that a gender perspective be adopted and integrated into all the agenda items of the Commission)<sup>34</sup> has been given due consideration in the advancement of the work concerning climate change statistics. While advancing methodologies concerning the Global Set, UN DESA has consulted with UN Women, and the Inter-Agency and Expert Group on Gender Statistics (IAEG-GS)<sup>35</sup> to identify where cross-fertilisation and synergies between climate change and gender statistics can aid Member States in the advancement of both statistical fields. Bearing this in mind, the intention is to provide opportunity for Member States to create efficiencies in their programmes of work concerning climate change and gender statistics, taking into consideration the nexus between the two, and acknowledging that both are naturally very cross-cutting.

32. During the tenth meeting of the EGES, experts' focus included how gender statistics can be a powerful tool to address different environmental challenges, but also enhance climate change or disaster risk reduction governance. Methodologies concerning official statistics whereby phenomena concerning change in environmental quality may affect the health of different populations are being advanced. At this meeting, 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 environment and climate change statistics. The first agreed-upon activity by IAEG-GS involved creating a guidance note highlighting the relevance of gender statistics in understanding environmental challenges for women and men, and improving actions related to climate change and disaster risk. A group work session took place during the meeting which allowed for peer review of latest advancements on the nexus between climate change and gender statistics. In the interest of advancing the methodological research on climate and gender statistics, Member States have agreed to share experiences of household surveys used for gender and environment data collections.

33. The Global Set (especially in the case of its Tier 3 indicators) can benefit from the methodological work on gender and climate change statistics, in particular the work carried out by the Asia-Pacific region. The advances should be reviewed and incorporated into the Global Set, so long as they meet criteria of methodological soundness, data availability and policy relevance. 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 questions on gender issues and climate change into existing household surveys or censuses (population and housing censuses, Multiple Indicator Cluster Surveys (MICS), Demographic and Health Surveys, labour force surveys, or others). Specialised household surveys with a focus on the nexus between gender equality 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.

#### Climate change and health statistics

34. Climate impacts on health is a vital topic, with data deficiencies both in terms of quality and time series in most Member States, therefore this topic should be prioritized on the agenda of national governments for the production of

<sup>&</sup>lt;sup>34</sup> https://unstats.un.org/UNSDWebsite/statcom/session\_51/documents/2020-37-FinalReport-E.pdf (ref. 51/115 (b)

<sup>&</sup>lt;sup>35</sup> SG report on gender statistics https://unstats.un.org/UNSDWebsite/statcom/55

climate-health related statistics. Likewise, the topics need to be prioritized at international level. A key stakeholder in this effort is the United Kingdom Office for National Statistics (ONS) in collaboration with The African Institute for Mathematical Sciences (AIMS) Rwanda and The Regional Institute for Population Studies (RIPS), University of Ghana. Methodological research continues to advance, led by the ONS, on the impact upon human health and healthcare facilities for a range of climate-related hazards (including heatwaves). The level of disaggregation will be key in identifying climate change's impact upon health, and due to the nature of climate exposure and severity, this will need to be considered at a local level for certain purposes (e.g. often to measure adaptation, vulnerability), but aggregated at least to a national level for other purposes (e.g. often to measure drivers and impacts).

35. As the work concerning climate change and health statistics advances, a key consideration is the need for the NSO's collaboration with other key stakeholders at national level such as a Ministry of Health. Further, an NSO's interaction with a Ministry of Health may require formalisation as consideration may need to be given to the sensitivity of confidential health records, especially when the phenomenon trying to be measured and associated with climate change needs to be localised to inform decision-making. If climate adaptation and mitigation policies are to be well informed, access to high quality confidentialised data which takes into consideration temporal and spatial scale will be imperative. Progress on climate change and health statistics, and the relationship between the two were reviewed via a group work session during the tenth meeting of the EGES.

## **Disaster Statistics**

36. In line with the progress of Member States to meet commitments related to the Sendai Framework, and bearing in mind yet again another field of statistical work which has natural overlaps to climate change statistics, work concerning disaster statistics is considered by UN DESA in collaboration with the UNDRR and other partners. This topic was presented in the tenth meeting of the EGES describing methodological developments in disasters statistics under the auspices of the Inter-agency Expert Group on Disaster-related Statistics. The nexus between climate change and disasters statistics is being addressed, inter alia, in the DA14 project mentioned in paragraph 25 and the missions in Lesotho and Cameroon mentioned in paragraph 26. Moreover, efforts undertaken by the Pacific Community and UN Women to test climate and disaster surveys is feeding into the plans of the Statistics Division of UN DESA plans for continued research into best methodology for data sources.

#### Water and Waste Statistics

37. At the tenth meeting of the EGES, water and waste statistics were also extensively discussed as was their applicability to the Global Set. Efforts have been ongoing to continuously review the methodological work underlying water statistics through the regularly held water teleconferences between UN DESA, OECD, Eurostat, the World Health Organization (WHO), UN-Habitat and FAO under the auspices of the IWG-ENV that meets on a quarterly basis. The agenda of these teleconferences is related to water statistics, and while its original intention was not to serve as input for climate change statistics, the Environmental Indicators, focussing on water and waste, have genuine applicability to a number of statistics and indicators in the Global Set. The UNSD/UNEP Questionnaire on Environment Statistics focussing on water and waste statistics is one of many collections at international level which can serve as an input into climate change statistics compilation.

#### Censuses and surveys

38. A relatively new source for environment and climate change statistics has been discussed at the tenth meeting of the EGES and includes (i) developments in survey modules on climate change; and (ii) experience on climate change related data collections via Population and Housing Census. For example, many Member States are including a dedicated section on the environment, which may include specific questions on climate change, in their Population and Housing Censuses (PHC) and sharing this information with UN DESA which continues to maintain a centralised hub making such content available to all Member States.<sup>36</sup> This is revealing that the PHC can be an invaluable source for compilation of some statistics in the Global Set. Beyond PHCs, specialised surveys which

<sup>&</sup>lt;sup>36</sup> https://unstats.un.org/unsd/envstats/censuses/

capture information concerning environmentally-related issues, such as on climate change and disasters, are regularly shared by Member States with UN DESA through its Statistics Division, which are also featured in the centralized hub. This body of work has built to the point that it may be referred to and indeed inform the revision of the UN Principles and Recommendations for Population and Housing Censuses for the 2030 census round.

39. In collaboration with the SPC and the United Nations Member States which it serves, 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 to address climate change indicators and statistics from the Global Set, the FDES, Sendai Framework and the SDGs has been shared with UN DESA. The survey aims to provide data at a disaggregated level, and can be applied to other Member States with similar characteristics (often small island states).

40. At the tenth meeting of the EGES the United Republic of Tanzania provided an overview of its environment statistics data collection, environment and climate change questions in the 2022 PHC, and its recommendations for the 2030 Round of PHCs. It stated that the main objective of incorporating questions related to environment and climate change included, but were 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. Several other Member States mentioned plans to include climate change-related questions in their forthcoming PHCs. The inclusion of questions on specific themes within PHCs are welcome, as they can serve now and in future as an invaluable source for environment and climate change statistics.

41. Taking into consideration that a number of indicators in the Global Set require data from surveys and censuses, during the tenth meeting of the EGES which allowed for much consultation between Member States and the UN DESA Statistics Division, 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 be included in these data collection instruments. As the effort of such a working group may progress, it will endeavour to be in dialogue with the UN Expert Group responsible for the revision of the UN Principles and Recommendations for Population and Housing Censuses for the 2030 census round.<sup>37</sup> Such communications among the two expert groups may take place well prior to the submission of the revised Principles and Recommendations for Population and Housing Censuses to the 56<sup>th</sup> session of the Statistical Commission in March 2025, which would allow for that submission to consider advancements of the working group whose focus is upon climate change questions.

## III. Future Plans

42. As the area of climate change statistics receives more funding and priority for further methodological and capacity development work, UN DESA, UNFCCC and other key partners have been providing capacity development for climate change statistics including in the general context of environment statistics. This had led to many countries initiating a national programme on environment and/or climate change statistics, participation in other projects or planning future activities.

43. UN DESA, UNFCCC and other key partners will continue to work towards building coordination and alignment of activities on climate change and environment statistics via the EGES and IWG-ENV including by promoting the implementation of the Global Set of Climate Change Statistics and Indicators. This work requires continuous engagement and promoting the benefits of official statistics in terms of supporting transparency and accountability, especially in mitigation, adaptation to climate change and disaster risk reduction.

44. In an effort to encourage further engagement and cooperation while minimizing duplication of effort through its Statistics Division, UN DESA proposes to initiate work on a strategy for international and regional organizations to strengthen and collaborate in implementing capacity development activities on environment and climate

<sup>&</sup>lt;sup>37</sup> SG report on Population and Housing Censuses and SG report on Demographic Statistics: https://unstats.un.org/UNSDWebsite/statcom/55

change statistics in Member States. This work will build on existing references, including the International Statistical System (ISS)<sup>38</sup>; the United Nations Statistics Quality Assurance Framework (UN SQAF)<sup>39</sup> and putting the FDES to work – A Blueprint for Action<sup>40</sup>. While embracing these generic guides, such a strategy is also expected to build upon specific inputs, such as the IWG-ENV Inventory of capacity development activities (2020<sup>41</sup>; and outcomes of the Global Consultation, 2022<sup>42</sup>). Besides the strategy, further efforts are needed on developing training materials, e-learning and knowledge base.

45. The Regional Commissions, UNEP, UN DESA, the secretariat of UNFCCC and other partners will continue to organize regional and national capacity development workshops, including via the DA14 project and complemented by the Regular Programme for Technical Cooperation (RPTC) and other funds. The Global Set will be applied using the Implementation Guidelines and CISAT along with other relevant tools. The implementation support tools will be further promoted via translations into the other official languages of the United Nations and via conducting information sessions in various events.

46. UN DESA further plans to continue collaboration with specialized agencies and relevant institutions on prioritized topics to advance the methodology and implementation support on the Global Set of Climate Change Statistics and Indicators in a balanced way, especially bearing in mind methodological advancements concerning tier 3 indicators. Taking into account the important methodological developments in the areas of climate and health led by the UK ONS, and climate and gender led by IAEG-GS and UN Women-Asia Pacific, UN DESA will work with the above partners plan to continue to review the methodological advances and incorporate the corresponding updates in the Global Set as appropriate. Other areas will also be prioritised based on the availability of expertise and resources.

47. Furthermore, through formation of a working group of experts (within the EGES) partners will develop a core set of climate change questions which can be included in censuses and surveys to inform a number of indicators and statistics in the Global Set as well as the 2030 Sustainable Development Agenda and beyond. Several Member States have already demonstrated interest to participate in this working group. Core questions/topics developed by the working group of experts may be discussed with the UN Expert Group responsible for the revision of the UN Principles and Recommendations for Population and Housing Censuses for the 2030 census round. Such an arrangement may allow time for consideration prior to the fifty-sixth session of the Statistical Commission in March 2025.

#### IV. Action to be taken by the Statistical Commission

## 48. The Commission is invited:

(a) To approve the renaming of the group (EGES) to the Expert Group on Environment and Climate Change Statistics (EG-ECCS) based on the request of the EGES and the forty-ninth session of the Commission that recommended the expansion of the mandate of the EGES to cover more aspects of climate change statistics and indicators, on the expert group meetings increasingly addressing climate change statistics, and on the close interrelationship between the two.

(b) To promote streamlining of environment and climate change statistics by amending the work programme of the Commission and combining these two areas into a single agenda item with one annual report on environment and climate change statistics;

<sup>&</sup>lt;sup>38</sup> https://unstats.un.org/capacity-development/handbook/chapters/Ch16\_Handbook\_20230417.pdf

<sup>&</sup>lt;sup>39</sup> https://unstats.un.org/unsd/unsystem/Documents-March2017/UNSystem-2017-3-QAF.pdf

<sup>&</sup>lt;sup>40</sup> https://unstats.un.org/unsd/statcom/doc13/BG-FDES-Environment\_Blueprint.pdf

<sup>&</sup>lt;sup>41</sup> https://unstats.un.org/UNSDWebsite/statcom/session\_51/documents/BG-item-4e-EnvironmentStats-E.pdf

<sup>&</sup>lt;sup>42</sup> https://unstats.un.org/UNSDWebsite/statcom/session\_53/documents/BG-3m-GlobalConsultationontheGlobalSet-E.pdf

(c) To urge countries to apply the Global Set and its implementation support tools, CISAT and Implementation Guidelines to assist in establishing national programmes of climate change statistics;

(d) To encourage further collaboration between the Statistics Division of the Department of Economic and Social Affairs, the secretariat of the UNFCCC and other key partners, to continue strengthening the link between statistics and policy by undertaking joint initiatives, trainings and capacity development efforts and for promoting reporting tools;

(e) To advocate for closer engagement at national level between the NSO and the national authorities responsible for reporting climate change to the UNFCCC which is going to support countries in meeting their reporting obligations under UNFCCC and improve the quality of data reported under Paris Agreement and for other purposes;

(f) To take note of the work undertaken to date to develop methodologies for prioritised topics understanding that all new methodological work requires collaboration among specialists and to encourage further integration of gender, health, disasters and other statistical areas with environment and climate change statistics;

(g) To urge the donor community to mobilize additional substantial resources to enable capacity development in environment and climate change statistics in countries with less developed statistical systems;

(h) To strongly encourage national statistical systems to invest in the development of climate change statistics, by designing special surveys or other data collection tools, and to include climate and environment-related questions in the Population and Housing Censuses (PHC), agriculture censuses, household surveys (household income), censuses/surveys of economic activities, etc.