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Environment statistics

Report of the Secretary-General

Summary

The present report, which was prepared in accordance with Economic and Social Council decision 2019/210 and past practices, provides a summary of activities carried out during the biennium 2018–2019, including on: progress made on the increasingly widespread implementation of the Framework for the Development of Environment Statistics 2013; developments in methodological work (including the Framework for the Development of Environment Statistics toolkit and climate change statistics); the fifth and sixth meetings of the Expert Group on Environment Statistics; training and capacity-building provided to regions, subregions and countries; and coordination. It also lays out the workplan for the biennium 2020–2021. Since the workplan includes the global collection, compilation and dissemination of environment statistics and indicators, the report also provides a summary of the results of the international collections of environment statistics carried out by the Statistics Division of the Department of Economic and Social Affairs of the Secretariat from 1999 to 2018, as well as conclusions with relevance for future work, especially in relation to the environment-related Sustainable Development Goals. The Statistical Commission is invited to take note of the report.

* E/CN.3/2020/1.



I. Introduction

1. At its forty-ninth session, held from 8 to 11 March 2018, the Statistical Commission took note of the report of the Secretary-General on environment statistics (E/CN.3/2018/31), in which the Secretary-General summarized developments in methodological work, the implementation of the Framework for the Development of Environment Statistics 2013, its associated technical cooperation and capacity-building activities, data collection and dissemination activities and the plans for the biennium 2018–2019.

2. The present report provides an overview of the activities carried out in 2018 and 2019, including a status report on the availability of the Framework for the Development of Environment Statistics in the official languages of the United Nations, the progress of methodological work, the fifth and sixth meetings of the Expert Group on Environment Statistics, the advancement of the application of the Framework in countries worldwide and related training and capacity-building activities, data-collection activities, coordination and advocacy. Given the importance of climate change statistics and indicators and their interrelationship with environment statistics, an update to the work on climate change statistics and indicators by the Statistics Division of the Department of Economic and Social Affairs of the Secretariat is included. The report also discusses the tasks and plans for the biennium 2020–2021. A background document to the present report contains more detailed information on the data collection and dissemination activities (see para. 25 below), as well as on capacity-building activities in environment statistics (see para. 16 below) carried out by the Statistics Division and by other international and regional organizations.

II. Activities carried out in 2018 and 2019

A. Methodological work

Framework for the Development of Environment Statistics 2013 and the Expert Group on Environment Statistics

3. The Framework for the Development of Environment Statistics 2013 is currently available from the website of the Statistics Division in English and Portuguese (<https://unstats.un.org/unsd/envstats/fdes.cshtml>). Work is ongoing to solicit and finalize voluntary translations of the Framework into all the official languages of the United Nations. A brochure describing the developments and use of the Framework is available in the official languages of the United Nations (<https://unstats.un.org/unsd/envstats/fdes.cshtml>).

4. Further developments in the implementation of the Framework include the continuation of the work of the Expert Group on Environment Statistics, which is assisting the work of the Statistics Division on methodological development, in particular with the Manual on the Basic Set of Environment Statistics, which provides detailed guidance on how to compile environment statistics. The Expert Group has increasingly been providing support to the work of the Statistics Division in the development of the global set of climate change statistics and indicators. The Expert Group held its fifth and sixth meetings in New York in May 2018 and May 2019 (see https://unstats.un.org/unsd/envstats/fdes/fdes_eges.cshtml). The meetings were attended by experts from developed and developing countries, the United Nations regional commissions, the European Environment Agency, Eurostat, the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), the United Nations University, the secretariat of

the United Nations Framework Convention on Climate Change and academia. The meetings of the Expert Group were chaired by Janet Geoghagen-Martin, Director, Censuses, Demographic and Social Statistics Division, Statistical Institute of Jamaica.

5. The discussions of the Expert Group were based on documents and corresponding presentations prepared by the members of the Group and by the Statistics Division. The main topics discussed at the meetings included, inter alia: (a) the draft methodology sheets of the Manual on the Basic Set of Environment Statistics; (b) the implementation of the Framework for the Development of Environment Statistics and the reporting template to summarize the results of the Environment Statistics Self-Assessment Tool; (c) environment-related Sustainable Development Goal indicators; (d) the regular biennial data collection on water and waste statistics via the Statistics Division/UNEP Questionnaire on Environment Statistics, including e-waste statistics; (e) climate change statistics and indicators; and (f) capacity development. All papers and presentations submitted for the meetings of the Group, as well as the reports of the meetings, are available on the website of the Expert Group (see https://unstats.un.org/unsd/envstats/fdes/fdes_eges.cshtml).

Manual on the Basic Set of Environment Statistics

6. The Manual on the Basic Set of Environment Statistics consists of methodology sheets for the collection or compilation of all environment statistics in the Basic Set of Environment Statistics embedded in the Framework for the Development of Environment Statistics (https://unstats.un.org/unsd/envstats/fdes/manual_bses.cshtml). The members of the Expert Group expressed their appreciation to the Statistics Division and to all experts who contributed to the Manual and discussed the content of the methodology sheets at both of its meetings. Presentations were given and discussions held on several methodology sheets contained in the Manual. The Statistics Division is working on the revision of the methodology sheets in line with the comments made at the meetings. Several methodology sheets have been published on the Division's website, including those covering the topics of soils, ecosystems and biodiversity, land cover and land use, forests, air quality, mineral resources, energy resources, crop and livestock statistics, water resources, generation and management of waste, human settlements, and environmental protection expenditures in the Framework for the Development of Environment Statistics. Methodology sheets on the emissions of greenhouse gases, environmental information and awareness, natural disasters, marine water quality, geological and geographical information, wastewater and environmental health are forthcoming.

Environment Statistics Self-Assessment Tool

7. The Environment Statistics Self-Assessment Tool, which has been applied successfully in regional training workshops and through country initiatives in all regions, is available in the official languages of the United Nations from the website of the Statistics Division (<https://unstats.un.org/unsd/envstats/fdes/essat.cshtml>). Following the completion of the Environment Statistics Self-Assessment Tool, the Statistics Division has developed a reporting template to summarize the results in collaboration with the Expert Group. While the experiences in applying the Environment Statistics Self-Assessment Tool are being compiled and reviewed, the Statistics Division is working on the revision of the reporting template and on further guidance to help countries make the best use of the implementation support tools.

National action plans for environment statistics

8. At the forty-fourth session of the Statistical Commission, a plan to put the Framework for the Development of Environment Statistics into practice (https://unstats.un.org/unsd/statcom/doc13/BG-FDES-Environment_Blueprint.pdf), was endorsed and, as a result, countries have been developing national action plans for environment statistics in order to institutionalize and foster collaboration in this area of statistics at the national level. The Statistics Division is currently working on a template for national action plans in collaboration with the Expert Group.

Repository of environmental surveys

9. In order to assist countries with the conduct of surveys in various environmental fields, the Statistics Division, with the support of the Expert Group, has developed a repository of national census and survey questionnaires related to environment statistics (<https://unstats.un.org/unsd/envstats/censuses/>). This repository has grown gradually and now includes 90 national censuses and surveys from 25 countries. The Statistics Division welcomes the contributions of censuses and surveys from experts in the field of environment statistics from all countries in the official languages of the United Nations and in other languages. The censuses and surveys are being made available for information and to help to improve environment statistics collections at the national level. Available censuses and surveys cover the environmental aspects of a variety of themes relevant to environment statistics, including agriculture, air and climate, energy, environmental expenditure, fisheries, waste and water. Additional supporting documentation to complement these censuses and surveys, such as reporting instructions, field reports, quality reports and analytical reports, is also available.

Climate change statistics

10. The Statistics Division received a mandate from the Statistical Commission at its forty-seventh session in 2016 to, inter alia, develop a global set of climate change statistics and indicators applicable to countries at various stages of development. Following this mandate, the Statistics Division carried out a pilot survey with developing countries during 2017 and 2018 using the set of climate change-related statistics and indicators developed by the Economic Commission for Europe. The survey results showed that new or additional indicators were needed, in particular to reflect the situation of developing countries, that the indicator selection method needed to take into account the global processes on climate change negotiations and reporting, and that the best approach should be based on a systematic review of country-based practices. At its forty-ninth session in 2018,¹ the Statistical Commission reiterated the importance of the work of the Statistics Division in the development of the global set of climate change statistics and indicators; urged countries to participate in the pilot survey and the global consultation on climate change statistics and indicators to be undertaken by the Statistics Division; and requested the Statistics Division and the secretariat of the United Nations Framework Convention on Climate Change to strengthen the link between statistics and policy by undertaking joint initiatives in the development of climate change statistics and indicators, encouraging joint capacity-building efforts and training with other partners and exploring ways to encourage national statistical offices to be more involved in the preparation of data submissions to the secretariat of the United Nations Framework Convention on Climate Change, in support of the implementation of the Paris Agreement.

¹ See <https://unstats.un.org/unsd/statcom/49th-session/documents/Report-on-the-49th-session-E.pdf>.

11. The Statistics Division has carried out a systematic review of climate change statistics and indicators from 130 countries with representative regional coverage, analysed more than 7,500 individual climate change statistics and indicators and identified a draft set of the most commonly repeated indicators, thereby promoting a bottom-up approach to their selection. The final number of statistics and indicators will be decided after the pilot survey and global consultation are completed, but the set of indicators will be comprehensive and applicable to all countries. The Expert Group has been contributing to the work on the draft set of climate change statistics and indicators through the review of iterative versions and discussions at Expert Group meetings.

12. The draft set of climate change statistics and indicators has been organized according to the five areas of the Intergovernmental Panel on Climate Change framework (drivers, impacts, vulnerability, mitigation and adaptation). Many indicators are repeated across different countries and come from at least one national source from the 130 countries reviewed. In 2018, the Statistical Commission requested the Statistics Division and the secretariat of the United Nations Framework Convention on Climate Change to strengthen the link between statistics and policy; in order to show this link, the relevant articles of the Paris Agreement are mentioned for each indicator in the draft set of climate change statistics and indicators. In addition, the Sustainable Development Goals and international frameworks and agreements such as, the Framework for the Development of Environment Statistics, the Paris Agreement, the Sendai Framework for Disaster Risk Reduction 2015–2030, as well as the set of climate change-related statistics and indicators from the Economic Commission for Europe, have been taken into account in order to promote consistency and harmonize the wording of the indicators to the extent possible. The Statistics Division plans to undertake the pilot survey with a group of countries and international and regional organizations that have participated in this work through different processes, such as the Expert Group, regional or national workshops. The global consultation on climate change statistics and indicators will take place in 2020 and will involve all Member States.

13. In addition, as requested by the forty-ninth session of the Statistical Commission in 2018, the Statistics Division has been working closely with the secretariat of the United Nations Framework Convention on Climate Change to develop the global set of climate change statistics and indicators and to strengthen the link between statistics and policy by, inter alia, holding joint side events at the Statistical Commission meetings, the participation of the secretariat of the United Nations Framework Convention on Climate Change in the Expert Group on Environment Statistics, the participation of the Statistics Division in a side event at the high-level political forum on sustainable development (<https://sustainabledevelopment.un.org/hlpf>) in 2019, and the participation of the secretariat of the United Nations Framework Convention on Climate Change in regional and subregional workshops on environment statistics and climate change statistics, such as those organized by the Statistics Division for the Arab region in 2018 and for the Caribbean Community region in 2019.

B. Implementation of the Framework for the Development of Environment Statistics 2013 through training and capacity-building activities

14. The Framework for the Development of Environment Statistics was used in the project under tranche 9 of the Development Account, entitled “Supporting Member States in developing and strengthening environment statistics and integrated environmental-economic accounting for improved monitoring of sustainable

development”, which ran from 2014 to 2017, and it is now being used in the project under tranche 10 on statistics and data, running from 2016 until 2020.

15. For the above-mentioned project under tranche 10 of the Development Account, the Statistics Division provided capacity development for the strengthening of environment statistics in the Gambia and Namibia. Under the regular programme of technical cooperation, the Statistics Division carried out a national mission for strengthening of environment statistics in Equatorial Guinea and organized a regional workshop on environment statistics and information for sustainable development in the Arab region in 2018 (<https://unstats.un.org/unsd/envstats/meetings/2018-Arab%20Region/ArabRegion.cshtml>). In 2019, another regional workshop on environment statistics and climate change statistics was carried out for the Caribbean Community region (<https://unstats.un.org/unsd/envstats/meetings/2019-Caricom%20Region/CaricomRegion.cshtml>), followed by a national workshop on environment statistics and climate change statistics in Grenada. A number of countries have made progress in developing environment statistics, using the Framework for the Development of Environment Statistics and the Environment Statistics Self-Assessment Tool, in the development of national compendiums of environment statistics and national action plans, as well as in the establishment of national technical working groups or inter-agency committees on environment statistics.

16. At its sixth meeting in May 2019, the Expert Group on Environment Statistics identified that currently there may be duplication of capacity-building efforts in many countries and that there was no standard way of assessing the efficiency of such activities or projects. The Expert Group therefore recommended that given the limited resources worldwide, and in the interest of improving coordination of capacity-building efforts, the Statistics Division should compile an inventory of capacity-building activities in environment statistics, in particular starting with those led by international and regional organizations. The purpose of the inventory is to construct a synthesis of capacity-building activities in environment statistics at the international level which will assist and improve their coordination and contribute towards a geographically-balanced coverage of these activities. The activities in scope include any thematic areas pertaining to the topics included in the Framework for the Development of Environment Statistics. Initial results indicate that international and regional organizations carry out extensive capacity-building activities, some of which are in specialized subject matters such as electronic waste or biodiversity statistics, which may not have been part of mainstream statistics. Given that those topics are increasingly being incorporated and addressed in official statistics based on reporting demands related to the Sustainable Development Goals and multilateral environmental agreements, the inventory provides a wealth of information for both providers and recipients of capacity-building. The inventory also reveals ongoing and increasing partnerships contributing to strengthening environment statistics, both from an institutional and methodological point of view. The complete inventory will be included in the background document to the present report.

17. All five United Nations regional commissions and several regional economic communities, such as the Common Market for Eastern and Southern Africa, the East African Community, the Economic Community of West African States and the Caribbean Community have been using the Framework for the Development of Environment Statistics and the Environment Statistics Self-Assessment Tool to further the advancement of environment statistics in their member States. The Statistics Division has been collaborating with these institutions and has organized joint activities, including regional and subregional training workshops and national workshops (<https://unstats.un.org/unsd/envstats/otherworkshops/>). In addition to the regional institutions in the respective geographical areas where the workshops are being held, several international partners, including FAO, the secretariat of the United

Nations Framework Convention on Climate Change and the United Nations University have been regularly participating in these regional or subregional workshops organized by the Statistics Division and sharing their knowledge and expertise in the areas of agricultural statistics, water statistics, geospatial information, climate change statistics and electronic waste statistics.

18. The implementation of the Framework is advancing well and progress has been made in many countries in all regions. This has been aided by additional materials establishing the relevance of the Framework to the Sustainable Development Goals, including a comparison table identifying the statistics within the Framework that are necessary for compiling the environment-related Sustainable Development Goal indicators. Several countries have made a good start by developing compendiums of environment statistics based on the Framework, which are being made available on the website of the Statistics Division (see <https://unstats.un.org/unsd/envstats/fdescompendia.cshtml>). So far, 36 compendiums from 23 countries have been shared with the Statistics Division. All countries are encouraged to share their compendiums with the Statistics Division for promotion on its website.

C. Data collection and dissemination activities

19. The Statistics Division conducted its first data collection in 1999, requesting data from 168 countries and areas. Eight subsequent data collection rounds have taken place, with the most recent one, in 2018, requesting data from 165 countries and areas. According to the agreement between the Organization for Economic Cooperation and Development (OECD), Eurostat and the Statistics Division, the countries and areas covered by the joint OECD/Eurostat Questionnaire on the State of the Environment are not included in the process of data collection carried out by the Statistics Division through the Statistics Division/UNEP Questionnaire on Environment Statistics.² Both data collection processes are well coordinated and the questionnaires are fully compatible using identical definitions and classifications. Those statistics already being collected by other United Nations agencies and other international institutions have been excluded from the Statistics Division/UNEP Questionnaire on Environment Statistics, wherever possible. In the 1999, 2001 and 2004 data collection rounds, the Statistics Division obtained data on air, land, waste and water. Since 2006, the Statistics Division has collected data solely on waste and water, with a view to harmonizing its data with other international collections. This has allowed to focus limited resources on specific fields and avoided duplication of effort.

20. Following the adoption of the global indicator framework for the Sustainable Development Goals and targets at the forty-eighth session of the Statistical Commission (E/2017/24-E/CN.3/2017/35), the Statistics Division/UNEP Questionnaire on Environment Statistics has received increased attention from international agencies that are key stakeholders in this field of work. So as to maintain relevance in the light of the above Statistical Commission mandate, and while encouraging Sustainable Development Goal indicator compilation by countries, variables relating to municipal waste have been added to the Questionnaire (namely municipal waste generated at both the national and city levels). In both instances, municipal waste generated (instead of municipal waste collected, municipal waste managed or total waste generation) is the preferred denominator for calculation of two Sustainable Development Goal indicators. As such, in 2018 the Statistics Division/UNEP

² For example, for the 2018 data collection round, six countries (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia) moved out of the scope of the Statistics Division/UNEP Questionnaire on Environment Statistics and into the scope of the joint OECD/Eurostat Questionnaire on the State of the Environment.

Questionnaire on Environment Statistics collected data on municipal waste generated (at both the national and city levels). For both individual variables, response rates were modest, but these variables will be collected again in 2020 in line with addressing the mandate of the Statistical Commission at its forty-eighth session. In addition, the Statistics Division used an expanded breakdown of the International Standard Industrial Classification of All Economic Activities, Revision 4, for selected tables in the Statistics Division/UNEP Questionnaire on Environment Statistics. This decision was taken so that country data can better service demands for those water-related Sustainable Development Goal indicators for which the Statistics Division is a partner agency together with FAO.

21. Although a response rate³ of over 50 per cent has been reached in the latest two data collection rounds, there is still much scope for improvement in response rates, given the growing demands for environment statistics, especially in the light of the equal standing given to the environment alongside economy and society as pillars of the 2030 Agenda for Sustainable Development.

22. Table 1 presents a summary of the responses received in the nine Statistics Division data collection rounds by year of data collection. Fluctuation in the number of questionnaires sent by the Statistics Division across the nine rounds is the result of a number of factors, including the emergence of newly independent countries and the accession of a number of States Members of the United Nations to OECD or the European Union.

Table 1

Summary of responses for all data collection rounds: 1999–2018

| | 1999 | 2001 | 2004 | 2006 | 2008 | 2010 | 2013 | 2016 | 2018 |
|---|------|------|------|------|------|------|------|------|------|
| Total responses | 51 | 62 | 68 | 80 | 84 | 84 | 81 | 89 | 86 |
| Response rate (percentage) | 30 | 35 | 43 | 49 | 49 | 49 | 47 | 51 | 52 |
| Countries and areas that received the questionnaire | 168 | 177 | 158 | 163 | 171 | 172 | 173 | 173 | 165 |

23. Substantial differences can be observed in the development and availability of environment statistics when the results of the questionnaire are analysed at the regional level. Table 2 gives a regional overview of the number of responses and the percentage of responses for each year of the data collection round.

³ Throughout this report, a response is any case where a country or area provides any numerical data in response to the Statistics Division/UNEP Questionnaire on Environment Statistics (typically in the Questionnaire itself). Invariably, in every collection cycle there is a small number of cases where countries or areas confirm receipt of the questionnaire, but thereafter do not provide any data. Such cases are not considered responses since the Statistics Division is trying to measure the capability of a country or area to provide data for the Questionnaire.

Table 2

Number of responses and percentage of responses by geographical region and year of data collection^a

| | 2001 | | 2004 | | 2006 | | 2008 | | 2010 | | 2013 | | 2016 | | 2018 | |
|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| Africa | 13 | 23 | 22 | 39 | 16 | 28 | 22 | 37 | 23 | 40 | 20 | 37 | 21 | 38 | 22 | 40 |
| Asia | 21 | 46 | 20 | 43 | 24 | 52 | 27 | 59 | 25 | 54 | 23 | 48 | 28 | 61 | 32 | 71 |
| Europe | 9 | 64 | 7 | 50 | 12 | 86 | 11 | 79 | 11 | 73 | 12 | 86 | 11 | 79 | 7 | 88 |
| Americas | 18 | 45 | 19 | 48 | 27 | 68 | 22 | 58 | 24 | 63 | 26 | 68 | 23 | 56 | 21 | 53 |
| Oceania | 1 | 7 | – | – | – | – | 1 | 7 | – | – | – | – | 5 | 31 | 4 | 25 |
| Total | 62 | 35 | 68 | 43 | 80 | 49 | 84 | 49 | 84 | 49 | 81 | 47 | 89 | 51 | 86 | 52 |

^a Response rates were calculated according to the number of countries or areas in each geographical region on the Statistics Division M49 list (showing standard country or area codes for statistical use) as of 2019. The M49 list of countries or areas, codes and abbreviations is available from: <http://unstats.un.org/unsd/methods/m49/m49alpha.htm>.

24. As mentioned above, existing and future data collected by the Statistics Division will be invaluable, in particular for those targets under the Sustainable Development Goals that require data on environment statistics. Data collections can also encourage inter-institutional liaisons and help with data compilation at the national level for multilateral environmental agreements. Table 3 shows counts of responses for selected variables that have high relevance to Goals 6, 11 and 12. The table shows an increased number of responses and greater stability in time series data. Given the importance of producing national data on water and waste for quality and informed decision-making, and the fact that these data are extremely pertinent to the monitoring of the Goals, it is critical to improve the production of environment statistics; thus the heightened need for training and capacity-building in the field of environment statistics.

Table 3

Number of responses by selected variables that have high relevance to the Sustainable Development Goals, targets and indicators (Goals, targets and indicators given in parentheses)^{a,b,c}

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|------|------|------|------|------|------|------|------|
| Water | | | | | | | | |
| Renewable freshwater resources (6.4.2) | 27 | 28 | 28 | 24 | 26 | 26 | 18 | 18 |
| Freshwater abstracted (6.4.2) | 59 | 55 | 60 | 55 | 57 | 55 | 37 | 32 |
| Freshwater abstracted by water supply industry (6.4.1) | 37 | 35 | 41 | 42 | 42 | 41 | 31 | 29 |
| Gross freshwater supplied by water supply industry (6.4.1) | 56 | 58 | 64 | 57 | 57 | 54 | 32 | 27 |
| Total wastewater generated (6.3.1) | 18 | 19 | 19 | 20 | 22 | 24 | 18 | 17 |
| Wastewater treated in urban wastewater treatment plants (6.3.1) | 31 | 34 | 35 | 34 | 35 | 37 | 27 | 22 |
| Wastewater treated in other treatment plants (6.3.1) | 10 | 10 | 10 | 8 | 9 | 10 | 6 | 4 |
| Wastewater treated in independent treatment facilities (6.3.1) | 7 | 7 | 8 | 7 | 7 | 7 | 4 | 3 |
| Waste | | | | | | | | |
| Total amount of municipal waste generated (national level) (12.5.1) | 6 | 6 | 8 | 7 | 9 | 8 | 9 | 10 |
| Total amount of municipal waste generated (city level) (11.6.1) | 5 | 6 | 9 | 6 | 16 | 16 | 19 | 20 |
| Total amount of municipal waste collected (11.6.1, 12.5.1) | 54 | 53 | 61 | 54 | 55 | 54 | 39 | 38 |
| Municipal waste managed in country (11.6.1, 12.5.1) | 34 | 35 | 41 | 40 | 43 | 38 | 30 | 27 |
| Municipal waste managed in country (recycled) (11.6.1, 12.5.1) | 27 | 30 | 36 | 31 | 33 | 32 | 19 | 21 |

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|------|------|------|------|------|------|------|------|
| Municipal waste managed in country (composted) (11.6.1) | 22 | 25 | 33 | 28 | 29 | 26 | 15 | 14 |
| Municipal waste managed in country (incinerated) (11.6.1) | 27 | 29 | 33 | 31 | 31 | 29 | 18 | 19 |
| Municipal waste managed in country (landfilled) (11.6.1) | 42 | 42 | 50 | 46 | 47 | 45 | 30 | 31 |
| Hazardous waste generated (12.4.2) | 64 | 33 | 65 | 34 | 70 | 35 | 29 | 29 |
| Hazardous waste treated or disposed of (12.4.2) | 32 | 26 | 28 | 29 | 30 | 28 | 22 | 23 |
| Hazardous waste recycled (12.4.2) | 24 | 23 | 24 | 26 | 28 | 27 | 17 | 17 |
| Hazardous waste incinerated (12.4.2) | 25 | 22 | 24 | 23 | 23 | 24 | 16 | 18 |

^a Additional variables that are also needed to compile the Sustainable Development Goal indicators are included in the background document to the present report (see para. 25 below).

^b Years in the table refer to the year for which the data were provided.

^c Note that the lower values for the last two wastewater treatment variables are mainly attributable to the fact that these data have only been collected in 2013, 2016 and 2018.

25. The background document to the present report provides further analysis of all water and waste variables collected in 2018. The background document also contains an Inventory of Regular, International Primary Environmental Data Collection, Reporting and Dissemination from Countries undertaken by the United Nations, its specialized agencies, intergovernmental organizations and conventions (https://unstats.un.org/unsd/envstats/Inventory_datacollection_dissemination). In the light of the adoption of the Sustainable Development Goals, targets and indicators, and the emerging demands for climate change statistics and indicators, as well as the emphasis on the need for environmental statistics and indicators, there is great demand for the coordination of data collection and dissemination on environmental statistics and indicators as well as a need for greater collaboration between organizations on this subject. The Inventory serves as a useful resource to assist in alleviating the reporting burden on countries. The current responses to the Inventory show that dozens of international organizations collect and disseminate a myriad of environment-related data and statistics. These data cover various topics, and, when combined together, they provide detailed information of Member States' environmental conditions. Some areas of data, such as land cover and emissions, have overlapping data collection efforts from multiple agencies. This Inventory can be used by the primary data collectors to collaborate closely in order to reduce the burden of Member States and better harmonize international and national data.

26. Complementarily, the Statistics Division compiles and disseminates environmental indicators and global environment statistics on 10 indicator themes from a wide range of statistical sources. The themes and indicator tables are selected on the basis of current demands for international environment statistics and the availability of internationally comparable data. Indicator tables and charts with relatively good quality and coverage across countries and areas, as well as links to other international data sources, are available from the website of the Statistics Division (<http://unstats.un.org/unsd/environment/qindicators.htm>). In addition, the Division provides country snapshots on a selection of national environment statistics, complemented by key economic and social indicators (https://unstats.un.org/unsd/envstats/country_snapshots.cshtml).

27. Following liaisons with the United Nations University who demonstrated the demand for collection of statistics on electronic waste (e-waste) at the international level, in 2017 the Statistics Division sent a pilot questionnaire on e-waste statistics to 42 countries requesting data for 16 e-waste-related variables (e.g. large e-waste equipment generated; small e-waste collected). Subsequent analysis of response rates to individual variables within the pilot and of qualitative comments provided by

Member States led the Statistics Division to decide to collect data for just two variables on e-waste (total e-waste collected and total e-waste generated) for the first time in 2018. Response rates were relatively modest (e.g. nine responses for total e-waste generated in 2017; 12 responses for total e-waste collected in 2017). However, the Statistics Division plans to collect data for these two variables on a regular biennial basis via the Questionnaire on Environment Statistics (waste section) and is also considering requesting data for the breakdowns of e-waste generated and e-waste collected. Furthermore, the Statistics Division and the United Nations University continue to identify opportunities to collaborate closely together for capacity-development activities.

D. Coordination

28. Given the numerous international and regional organizations engaged in the collection and compilation of environment statistics, the United Nations Statistical Commission, at its thirty-fourth session, empowered the Statistics Division to convene the Intersecretariat Working Group on Environment Statistics to develop and harmonize concepts, methods and standards, as well as to coordinate data collection and capacity development in environment statistics. The permanent members of the Intersecretariat Working Group are organizations and agencies that have well-established international programmes on environment statistics, including direct and regular collection of comprehensive environment statistics from countries. Other organizations and agencies and countries with experience in specific areas of environment statistics are invited to participate in specific Intersecretariat Working Group activities. The Intersecretariat Working Group currently meets on an ad hoc basis, primarily through teleconferences and email communication.

29. Some of the recent work that the Statistics Division has undertaken, in collaboration with the Intersecretariat Working Group, has been the compilation of the Inventory of Regular, International Primary Environmental Data Collection, Reporting and Dissemination from Countries undertaken by the United Nations, its specialized agencies, intergovernmental organizations and conventions in 2015 and 2017 (see para. 25 above). The final inventory for 2019 will be included in the background document to this present report. Furthermore, the sixth meeting of the Expert Group on Environment Statistics in 2019 discussed the increased demand for and delivery of capacity development in environment statistics (see para. 16 above). The Statistics Division, in collaboration with the Intersecretariat Working Group, is compiling an inventory of capacity-development activities in environment statistics, starting with the agencies, and the complete inventory will be contained in the background document to the present report.

30. Another activity that the Statistics Division undertakes, through the Intersecretariat Working Group is the collaboration on water and waste questionnaires by international agencies. The objective of the harmonized data collection is to provide internationally comparable statistics on environmental issues based on standard questionnaires and methodology. The Statistics Division, along with Eurostat, and OECD has been collecting data on water and waste from national statistical offices and/or ministries of environment in a harmonized manner since 1999 (see para. 19 above). Data validation for European and OECD countries is done jointly by Eurostat and OECD, while the Statistics Division validates the data of all other Member States within its scope of collection.

31. In April 2018, FAO initiated a global data collection process through its Water and Agriculture Questionnaire 2018 to populate its Information System on Water and Agriculture (AQUASTAT database) and support the calculation of two water-related Sustainable Development Goal indicators for which it is the custodian agency. This

new data collection has some overlap with regular data collection carried out by the Statistics Division, OECD and Eurostat. There are some differences in terminology (e.g. water abstraction as opposed to water withdrawal and calculation method of environmental flow requirements) that are being discussed and clarified among these four institutions.

32. The four concerned international institutions have held 14 teleconferences since August 2018, agenda items have included cross-comparisons of individual countries' data sets; comparison of metadata and terminology used in questionnaires, bearing in mind how these may apply to multiple mandates such as that of the Statistical Commission, the Inter-Agency and Expert Group on Sustainable Development Goal Indicators or otherwise; sharing of questionnaires' in-country focal points; written consultation with selected countries by multiple international agencies to clarify any discrepancies in data; possibility of the four institutions aligning dates for sending their respective questionnaires to countries; frequency of data collection; and regular information exchanges of the four institutions' meetings, workshops and capacity-development activities. All agenda items discussed have been in the name of moving toward more harmonized data collections which minimize as much as possible both respondent burden put upon countries and any duplication of effort exerted while conducting the data collections by the international agencies. These meetings have prompted the four international institutions to more closely involve one another at their respective expert group meetings and capacity-development workshops which has in turn meant that more unified messages are being communicated to all States Members of the United Nations with respect to data collections on water.

E. Advocacy

Side events at the forty-ninth and fiftieth sessions of the Statistical Commission

33. A side event entitled "Climate Change – Linking Statistics and Policy" was held during the forty-ninth session of the Statistical Commission in 2018 (see <https://unstats.un.org/unsd/statcom/49th-session/side-events/20180307-1M-climate-change/>) and another entitled "Outcomes of COP24 in Katowice: the possible implications for climate change statistics" (see <https://unstats.un.org/unsd/statcom/50th-session/side-events/20190307-1M-Outcomes-of-COP24-in-Katowice/>) was held during the fiftieth session of the Statistical Commission in 2019. International and regional organizations, as well as countries, have presented their pioneering work in the area of climate change statistics and indicators. Both side events drew large audiences of statisticians, and support was expressed for the data provided through the work of the Statistics Division in collecting data on environment statistics, as well as for the further development of environment statistics and climate change statistics in countries worldwide.

High-level political forum on sustainable development

34. The Statistics Division took part in a side event entitled "Sustainable Development Goal 13. Advancing implementation of climate action and understanding progress: how advanced are we?" organized by the World Meteorological Organization, the secretariat of the United Nations Framework Convention on Climate Change, the United Nations Office for Disaster Risk Reduction, the Statistics Division and FAO on the margins of the high-level political forum on sustainable development (see <https://sustainabledevelopment.un.org/hlpf>) in 2019. The event brought together the climate, science, disaster risk reduction and statistical communities and countries to focus efforts on advancing the implementation of climate action on Sustainable Development Goal 13.

Newsletter on environment statistics: ENVSTATS

35. The Statistics Division publishes ENVSTATS, a biannual newsletter on environment statistics (<https://unstats.un.org/unsd/envstats/newsletters>). Countries and institutions working on environment statistics are invited to contribute articles to the newsletter describing relevant activities.

III. Plans for the biennium 2020–2021

36. In the biennium 2020–2021, the work of the Statistics Division will focus on: (a) further implementation of the Framework for the Development of Environment Statistics; (b) completion of the Manual on the Basic Set of Environment Statistics and developing updates of the Basic Set in view of revising the Framework for the Development of Environment Statistics in the future; (c) the encouragement and facilitation of the use of the Environment Statistics Self-Assessment Tool in countries, including the finalization of its reporting template; (d) finalization of the template for national action plans for environment statistics; (e) continued development and update of training material, including e-learning and platforms in support of the implementation of the Framework in countries worldwide; (f) continuation of the project under tranche 10 of the Development Account and support to other training and capacity-building activities in all regions through its regular programme of technical cooperation; (g) conducting the pilot survey and the global consultation on climate change statistics and indicators, as well as the finalization of the global set of climate change indicators and statistics; (h) conducting the tenth round of the Statistics Division/UNEP Questionnaire on Environment Statistics; (i) updating the inventory of capacity-development activities in environment statistics, and expanding it to include country to country technical assistance; (j) updating of the Inventory of Regular, International Primary Environmental Data Collection, Reporting and Dissemination from Countries; (k) continuation of the development of the repository of environmental surveys and censuses. Potential activities still being organized include developing a cross-cutting guidance on ocean statistics (in collaboration with UNEP) as well as guidance on developing inter-institutional mechanisms for climate change statistics at the national level (in collaboration with the secretariat of the United Nations Framework Convention on Climate Change). These activities will be carried out in close collaboration with the Expert Group on Environment Statistics.

IV. Action required by the Statistical Commission

37. **The Statistical Commission is invited to take note of the present report.**
