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## **CONFERENCE OF EUROPEAN STATISTICIANS' ACTIVITIES ON CLIMATE CHANGE-RELATED STATISTICS**

Prepared by UNECE

This is a Background Document to the Report of the Secretary-General on Climate Change Statistics (E/CN.3/2016/15). The document describes the activities pertaining to climate change-related statistics carried out under the Conference of European Statisticians (CES), and supported by the Statistical Division of the United Nations Economic Commission for Europe (UNECE). The document introduces the achievements of the CES work on climate change-related statistics, launched in 2011. The work resulted in the *CES Recommendations on Climate Change-Related Statistics* for national statistical offices, endorsed by more than 60 countries and organizations at the 2014 CES plenary session. The document also outlines the way forward in the implementation of the *CES Recommendations* at national and international levels.

# I. Introduction

1. New data needs are arising from global initiatives of high political importance, in particular from Global Climate Agreements, Sustainable Development Goals and the Sendai framework for disaster risk reduction. National statistical offices as gatekeepers of social, economic and environmental statistics, could strongly contribute to the monitoring of progress in implementing these initiatives. Existing official statistics, if made more accessible and improved for these purposes, would provide a valuable tool for analyzing drivers of climate change and its economic, environmental and social impacts. This paper outlines the results to date and the way forward in the work on climate change-related statistics, launched under the Conference of European Statisticians (CES)<sup>1</sup> in 2011.
2. The first phase of the work was carried out by a Task Force chaired by Canada to develop recommendations to improve official statistics related to climate change – the drivers, impacts and efforts made to mitigate and adapt to it. The purpose was to identify practical steps to support development of climate change-related statistics to meet user needs, and to enhance the role of official statistics in support of greenhouse gas emission inventories, compiled under the United Nations Convention on Climate Change (UNFCCC). UNECE held two expert meetings to discuss the initial findings and draft recommendations in 2012 and 2013. The work was reported regularly to the United Nations Committee of Experts on Environmental-Economic Accounting (UNCEEA).
3. As a result, the 2014 CES plenary session unanimously endorsed the first ever *CES Recommendations on Climate Change-Related Statistics*<sup>2</sup>. Following their endorsement the work continues with supporting CES Member States in improving the availability and usefulness of official statistics for the needs of climate change analysis and policy making, in line with the *CES Recommendations*.
4. The activities are a collaborative effort of national statistical offices, agencies in charge of emission inventories, international statistical organizations and climate organizations: UNFCCC, Intergovernmental Panel on Climate Change (IPCC), World Meteorological Organization (WMO), Directorate-General for Climate Action of the European Commission, European Environment Agency (EEA), International Energy Agency (IEA), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Office for Disaster

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<sup>1</sup> The CES comprises the Heads of statistical offices of UNECE and OECD member countries. Countries from outside the region such as Brazil, China, Colombia and Mongolia also participate in the work.

<sup>2</sup> [www.unece.org/publications/ces\\_climatechange.html](http://www.unece.org/publications/ces_climatechange.html)

Risk Reduction (UNISDR), the United Nations Population Fund (UNFPA) and the United Nations Statistics Division (UNSD).

## II. The CES Recommendations – A Summary

5. The *CES Recommendations on climate change-related statistics* were developed at countries' request in response to the growing data needs challenging both statistical and climate communities. In the course of work, a close link was established between statisticians and key climate organizations, such as UNFCCC, IPCC and WMO. These organizations actively contributed to the drafting of the *CES Recommendations*. They also participate in and contribute to the follow-up work related to climate change.

6. The *CES Recommendations* define what is meant by climate change-related statistics. The scope includes statistics that measure emissions and the drivers of climate change, impacts of climate change on human and natural systems, efforts to avoid the consequences (mitigation) as well as efforts to adapt to the consequences (adaptation). The conclusion is that a wide range of existing basic statistics can be used for analyzing climate change.

7. The *Recommendations* highlight three areas where official statisticians could contribute with concrete actions:

- First, official statistics need to be improved as they may provide a substantial part of the activity data needed for greenhouse gas inventory calculation. For this purpose, national statistical offices should collaborate with national agencies responsible for greenhouse gas inventories and be included as formal partners in national greenhouse gas inventory systems. At the international level, the statistical community should actively contribute to the development of the global emission inventory process.
- Second, to support the analysis of impacts of climate change as well as mitigation and adaptation efforts, statistical offices should facilitate access to existing data and could offer their web portals as gateways to climate information collected elsewhere. For effective analysis of risks and vulnerabilities, data linking should be made easier to analyze interconnections of population, infrastructure, enterprises, emissions, land use, etc., and these data should be georeferenced more widely. New statistics are also required (for example, data on population vulnerability to climate change impacts);
- Third, current statistical infrastructure – classifications, definitions, data collections, organizational structures, knowledge, products and services – should be enhanced so that they provide a suitable context for compiling climate change-related statistics. This calls for new partnerships and transfer of knowledge among the relevant data producers nationally and internationally.

### III. Current work strands

8. Following the endorsement of the *CES Recommendations*, the CES work currently focuses on implementing the *CES Recommendations*. The work involves three strands:

9. First, the CES Bureau set up a UNECE Steering Group<sup>3</sup> (led by Norway) in October 2014 to provide direction to countries in implementing the *CES Recommendations* and promote further harmonization and coherence between the greenhouse gas inventory data and official statistics.

10. The Steering Group will organize regular expert forums for producers and users of climate change-related statistics to share experience, advance work on conceptual and measurement issues and collaborate among key organizations involved in the measurement of climate change. The first such forum was held in Geneva on 2-3 September 2015 – section IV gives further details on the forum.

11. Second, the CES Bureau set up a UNECE Task Force on a Set of Key Climate Change-related Statistics and Indicators, chaired by Italy, to identify an internationally comparable set of climate change-related statistics and indicators using the *System of Environmental-Economic Accounting – Central Framework*, the *Framework for the Development of Environment Statistics* and other statistical frameworks as a source of information. The work takes into account the relevant indicators for the monitoring of progress towards Sustainable Development Goals and the related targets.

12. Third, in June 2015, the CES plenary session discussed measuring extreme events and disasters. CES noted the policy relevance of this topic and the need for national statistical offices to have a clear role in the measurement of extreme events and disasters. CES established a UNECE Task Force on Measuring Extreme Events and Disasters, chaired by Italy, to clarify the role of official statistics in this area, and identify practical steps how national statistical offices can support the measurement of disaster management and risk reduction. The work is carried out in coordination with national agencies responsible for disaster management. The Task Force is cooperating closely with the UNESCAP Expert Group on Disaster-related statistics. The work will feed into the monitoring of progress towards the Sendai Framework for Disaster Risk Reduction, agreed upon in March 2015.

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<sup>3</sup> Steering Group members: Norway (chair), Italy, Mexico, Netherlands, Kyrgyzstan, Russian Federation, Directorate-General for Climate Action of the European Commission, EEA, Eurostat, FAO, IEA, Midsummer Analytics, UNFCCC and UNECE.

## IV. Expert Forum in 2015 and its follow-up

13. The first UNECE Expert Forum for Producers and Users of Climate Change-Related Statistics<sup>4</sup> was held on 2-3 September 2015, in Geneva. In total, 84 participants attended the forum from 36 countries and 18 international organizations representing national statistical offices, environment agencies and ministries, meteorological services, disaster risk agencies, research institutes and international organizations.

14. The Expert Forum focused on how to implement the *CES Recommendations*. Countries presented many good practices, but also requested support in preparing national plans to implement the *CES Recommendations*. A number of countries asked for capacity building to meet the increasing demands for climate-relevant data.

15. The Expert Forum emphasized the central role of official statistics in high quality reporting to the UNFCCC. In addition to delivering data for emission inventories, official statistics should be used much more widely as baseline data for emission projections and for reporting on national circumstances, climate change adaptation and mitigation, technological exchange, financial resources and education.

16. The Expert Forum concluded that statistical offices and stakeholders, including the government and policy makers, should recognize the added value of official statisticians' involvement in providing independent and high quality data for climate research, climate policies and the monitoring of progress towards Global Climate Agreements.

17. Following the Expert Forum, the UNECE Steering Group is currently working to:

- Develop a road map to assist countries in prioritizing their actions to implement the *CES Recommendations* and improve their climate change-related statistics;
- Establish a web repository of countries' good practices and innovative services to better inform climate policies;
- Prepare a narrative for communication with various stakeholders to demonstrate the added value that official statistics could offer to the monitoring of climate change and in support of climate policies;
- Carry out a review of the challenges of countries with developing statistical systems in the UNECE region and consider mechanisms for capacity building.

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<sup>4</sup> For the meeting report, see the meeting web page: [www.unece.org/index.php?id=37898#/](http://www.unece.org/index.php?id=37898#/)

18. The UNECE Task Force on a Set of Key Climate Change-Related Statistics and Indicators has analyzed the use of SEEA, the FDES and other statistical frameworks for climate change indicators and prepared an inventory of climate policy questions which could help identify key indicators. The Task Force will develop a set of key indicators for discussion at the next Expert Forum in 2016.

19. The UNECE Task Force on Measuring Extreme Events and Disasters is reviewing available official statistics and current practices, and discussing conceptual issues, taking as a starting point the recommendations of the ESCAP Expert Group on Disaster-related Statistics. The first results will be discussed in an expert meeting in 2016.

20. The two Task Forces are expected to report on their recommendations to the Conference of European Statisticians in June 2017. The Steering Group will focus its efforts on key priorities identified at the Expert Forums each year.

## **V. Next steps**

21. The CES activities on climate change-related statistics are carried out in close coordination with various international organizations and initiatives. A recurring issue at the September 2015 Expert Forum was the importance of joint international work across statistical, climate, spatial, disaster risk and user communities. The need for effective international coordination is growing as new initiatives arise, particularly in the context of global climate agreements, the Sustainable Development Goals that relate to climate change and the Sendai Framework for Disaster Risk Reduction. The Expert Forum and the activities of the UNECE Steering Group and Task Forces provide a platform for collaboration, and such work should be further reinforced globally.

22. Given the volume and complexity of work facing the statistical community, new skills, capacities and methods are needed. The CES activities on climate change-related statistics aim to enhance official statisticians' contribution to the monitoring and analysis of climate change. Exchange of experience and capacity building are important for making use of the potential of official statistics in this area.

23. Countries beyond the UNECE region are participating in the CES work, such as Chile, Qatar, China, Colombia, Mexico and South Africa. At the 2015 Expert Forum, the countries emphasized the need for sharing experience and good practices widely as all countries are faced with the challenge of climate change and will benefit from the collaboration.

24. The *CES Recommendations on Climate Change-Related Statistics* could be useful for the global statistical community. The UNECE could submit regular reports to the United Nations Statistical Commission to inform the global statistical community of the new developments and to collect input for future work.

25. The CES work would benefit from feedback by the members of the United Nations Statistical Commission in developing climate change-related statistics for key users and uses, in particular climate research, policy making and reporting on progress towards the goals set in international climate agreements.