Key outcomes of the Expert Forum for Producers and Users of Climate Change-related Statistics

2-3 September 2015

Summary

This document presents the key outcome of the Expert Forum for Producers and Users of Climate Change-related Statistics, which took place from 2 to 3 September 2015 in Geneva. The meeting discussed emerging information needs that relate to climate change, and considered how data producers can best respond to them. The Expert Forum was comprised of seven sessions: (a) Setting the scene; (b) Responding to the needs of the new global climate change agreement; (c) Road map towards better climate change-related statistics; (d) Building capacity to provide climate change-related statistics; (e) Climate change indicators and SDG indicators; (f) Emerging areas – Measuring extreme events; and (g) The way forward. The conclusions of the meeting will provide input to the work of the UNECE Steering Group on climate change-related statistics and two Task Forces one of which is developing a set of key climate change-related indicators and the other defining the role of national statistical offices in measuring extreme events and disasters.

Session 1 – Setting the scene

Key note speech: Dr. M. Beniston (University of Geneva)

Presentations: Ms. N. Holmengen (Norway) and Mr. R. Smith (Midsummer analytics)

The first session was organized by chair of the Expert Forum, Ms. N. Holmengen (Norway). The session set the scene reflecting the data needs arising from global initiatives relating to climate change, and introduced the topics of the Expert Forum as well as the *CES Recommendations on Climate Change-Related Statistics*, released by UNECE in 2014. The following key issues were raised during the session:

- Data are urgently needed for monitoring of climate change, its impacts, adaptation and mitigation. New data are required to report on progress towards:
    - Sustainable Development Goals (SDGs) some of which relate to climate change,
    - Sendai Framework for Disaster Risk Reduction with seven global targets and
    - Targets to be agreed in the upcoming Paris Climate Agreement.
- It is time to move forward in implementing the *CES Recommendations on climate change-related statistics* and identify priorities nationally and internationally.
- Researchers experience difficulties in linking environmental data (which are often based on grids) with socio-economic data (often produced by administrative area). NSOs should coordinate harmonization of these data to enable important climate research projects. Furthermore, access to data needed for research should be improved, where possible allowing free access for researchers.

Session 2 - Responding to the needs of the new global climate agreement

Papers: [NSOs' entry points to the greenhouse gas (GHG) inventory system](#)

Presentations: Mr. S. Kononov (UNFCCC), Dr. R. Pipatti (Finland) and Ms. S. Korajcevic (Bosnia and Herzegovina)

The second session was organized by Mr. S. Kononov (UNFCCC) to discuss how official statisticians could contribute to the information needs of the international climate change regime, including new needs arising from the Paris Climate Summit. In December 2015, 196 countries will meet in Paris to agree on the new global climate agreement. The agreement aims at ambitious action before and after 2020 when the new agreement will come into force.

The key outcomes of the session:

- There is a need to increase collaboration between the NSOs, agencies responsible for GHG inventories and other data producers that prepare data for reporting under UNFCCC. In some countries, such collaboration is already well established but in many cases it needs improvement and/or strengthening, in particular in view of more complex data needs.
- Of particular value is engagement of NSOs in the preparation and quality control of activity data needed for the preparation of GHG inventories, energy balances being a typical example.
- The engagement of NSOs in the work on GHG inventories and other climate-related data can take different forms; for the engagement to be effective, it is important to tailor the engagement model to the particular national circumstances and the existing practices in the country. In any case, it is important to establish a dialogue between the NSOs and the national climate community. Practical ways to work together should be found and implemented in a sustainable manner, with a clear understanding of responsibilities and information flows. Both sides should reach out to enable that.
- High-level support to the strengthening of the NSOs' role in the preparation and use of climate change-related statistics is often critical, especially when that role is not yet well established in the country and collaboration at working levels faces challenges. Such support is particularly important when several national ministries or agencies need to be involved and when additional resources are required.
- All this becomes more and more important in view of the likely new or additional data needs because of the emerging new global agreement in the international climate change regime.

Session 3 - Road map towards better climate change-related statistics

Papers: [CES Recommendations on Climate Change-Related Statistics](#)

Presentations: Mr. R. Smith (Midsummer Analytics), Ms. C. Cahill (Canada), Mr. S. Schenau (Netherlands) and Mr. G. Brady (Ireland)

The third session was organized by Mr. R. Smith (Midsummer Analytics) to discuss the implementation of the CES Recommendations and identify practical priorities and first steps for

improving climate change-related statistics. UNECE published the *CES Recommendations on Climate Change-Related Statistics* in December 2014. These were the first ever recommendations aimed at improving official statistics to support climate change analysis and reporting on GHG emissions under UNFCCC.

The key outcomes of the session:

- The Expert Forum reconfirmed the 9 main CES recommendations on the climate change-related statistics and the need for NSOs' actions to implement those recommendations.
- Prioritizing the CES recommendations based on costs, time required for implementation and expected impact was considered useful as a tool for prioritization recognizing that priorities differ across countries. A road map should be developed to illustrate the use of the prioritization table for selecting national priorities for improving climate change-related statistics. The road map could explain the recommended actions and provide examples of prioritization in countries at different stages of developing their climate change-related statistics.
- NSOs would need tools to demonstrate to the general government and policy makers why NSOs should be involved in climate change-related statistics.
- Examples of good practices and innovations in the area of climate change-related statistics, shared during the Expert Forum and reflected in the CES Recommendations, should be collected and made available in a web repository with links to the respective CES recommendations. Countries were willing to provide additional examples if needed.
- The participants asked the Steering Group to assess progress made by countries to be discussed at future Expert Forums.

Session 4 - Building capacity to provide climate change-related statistics

Papers: Capacity gaps in climate change-related statistics

Presentations: Mr. K. Tanabe (IPCC), Ms. M. Haldorson (Sweden) and Mr. F. Tubiello (FAO)

The fourth session was organized by Ms. A. Ferruzza (Italy) to consider how statistical offices' and inventory agencies' networks could help in sharing of knowledge and good practices to improve the required statistics. Currently, there are no specific mechanisms for building the capacity of statistical systems to provide climate change-related statistics. The *CES Recommendations* note that there are gaps in countries' capacity that make it difficult to provide statistics to assess the impacts and costs of climate change and effectiveness of adaptation and mitigation. Moreover, developing countries will be required to provide new data on climate change mitigation and adaptation to UNFCCC, and new countries are developing their greenhouse gas inventory systems.

The key outcomes of the session:

- Increased awareness, resources and capacity at NSOs could allow better use of data already collected for the purposes of monitoring issues related to climate change and for GHG inventory compilation. Also, ongoing data collection efforts by statistical offices could be adjusted by taking into account the needs of national GHG inventories.

- The UNECE Expert Forum is very useful for countries and international organizations to discuss common work, and should be organized regularly as a key tool to:
  - Share experience and good practices in the UNECE region and beyond as all countries are facing challenges due to climate change and will benefit from the collaboration.
  - Share information between involved organizations and communities, such as national statistical offices, agencies responsible for GHG inventories and international organizations.
  - Support UNECE Task Forces by providing feedback from the wider expert community before reporting back to the CES and its Bureau.
- The participants asked for reviewing the need for capacity building in the area of climate change-related statistics, particularly the current situation and challenges of the countries of Eastern Europe, Caucasus and Central Asia.
- Countries suggested that international organizations, within the Steering Group, could consider possible capacity building actions and mechanisms, for example training workshops, advisory missions and study visits.
- One option would be to organize a special session for the countries of Eastern Europe, Caucasus and Central Asia on the occasion of the next Expert Forum. Based on the regional road map, countries could draft their national road maps for the development of their capacity for climate change-related statistics.
- Capacity building activities should target NSOs and other data providers to help them improve data for reporting under UNFCCC and national uses.
- The activities should also target other organizations, including agencies responsible for GHG inventories and other agencies that produce climate information to build their knowledge on the statistical data in order to support use of these data for their work.

Session 5 - Climate change and SDG indicators

Papers: Developing a Set of Key Climate Change-Related Statistics: the UNECE Task Force approach

Presentations: Ms. T. Luige (UNECE) and Mr. O. Thunus (Luxembourg)

The fifth session was organized by Ms. A. Tudini (Italy) to discuss selecting the set of key climate change-related indicators and its links to the planned SDG indicators. In October 2014, a UNECE Task Force started to develop a set of key climate change-related indicators using existing statistical frameworks, such as the System of Environmental-Economic Accounting (SEEA). The set will be built around the scope of climate change-related statistics of the CES Recommendations to include: emissions, drivers, impacts, mitigation and adaptation.

The key outcomes of the session:

- The Task Force was encouraged to take into account the SDG process and the Sendai Framework for Disaster Risk Reduction. The Task Force could include indicators suggested for monitoring of these frameworks, but complement them with indicators to cover all key aspects related to climate change. It would be useful to provide a cross-reference to other global indicators related to climate change.

- The set of key indicators should also take into account the reporting requirements under UNFCCC, such as possible mitigation progress indicators and other relevant issues that are reported as part of national communications regularly.
- When selecting indicators, the Task Force should pay particular attention to measurability and focus on the use of existing data and statistical frameworks, such as SEEA.
- It is likely that the set of climate change-related indicators will require data that from various different producers. Similarly to the SDG reporting, the compilation of a set of key climate change-related indicators would benefit greatly from efficient coordination by NSOs and collaboration with the private sector, academia and NGOs that produce relevant data.
- The ranking of policy questions carried out among the participants of the Expert Forum shows that the priority indicators differ significantly from those selected for the SDG monitoring. The set of key climate change-related statistics may thus complement the SDG indicators that relate to climate change.
- The Expert Forum asked the UNECE Task Force to convey a concern to the IAEG-SDG relating to the fact that GHG emissions are not included in the draft SDG indicator framework and make a proposal to include such an indicator.
- In the interest of efficiency it would be useful to review the consistency of proposed SDG indicators with existing global conventions and frameworks that require reporting and monitoring.

Session 6 – Emerging issues – measuring extreme events

Presentations: Ms. A. Ferruzza (Italy), Mr. D. Clarke (ESCAP), Ms. K. Ishigaki (UNISDR), Ms. M. Körber (Deutcher Wetterdienst) and Mr. T. De Groeve (Joint Research Centre of European Commission)

The sixth session was chaired by Mr. M. Dilley (WMO) and focused on measuring extreme events and associated disasters using official statistics. UNECE established a new Task Force in 2015 to define the role of national statistical offices and their data in measuring extreme events and disasters to support the work of national agencies responsible for disaster management and risk reduction. The session explored demands for data for analysing extreme events and disasters and reflected on the outcomes of the World Conference on Disaster Risk Reduction, held in Sendai, Japan in March 2015.

The key outcomes of the session:

- Measuring extreme events and disasters is on the top of policy agenda. It is encouraging to see the active involvement of many stakeholders measuring disaster risks and losses or using these data.
- Having relevant and consistent data requires that all stakeholders work in an aligned way sharing data starting from national level up to European and international levels. An active national multi-stakeholder process is needed to bring together data and expertise from NSOs, the private sector, academia and NGOs.
- All presentations reflected the importance of standardization of concepts and classifications to provide useful, internationally comparable data. The World

Meteorological Congress has agreed to standardize hydro-meteorological extreme event data, which will facilitate cataloguing of extreme events by National Meteorological and Hydrological Services and Regional Climate Centers. International organizations should work with national authorities and in wide collaboration across statistical, meteorological and other climate communities to agree on uniform standards for collecting and reporting data on associated losses and damage.

- It is difficult to distinguish between events attributable to climate change and other causes. For doing so scientist will require long time series of consistent data on the frequency of extreme events, their magnitude, location, duration and timing. Data on the people or assets exposed to each event, as well as the related losses would allow scientists to better assess changes in extreme events attributable to climate change. These data would also allow scientist to estimate the hazardousness, exposure and vulnerability to disaster losses and attribute losses and damage to climate change, calibrate investment in risk reduction and adaptation, and evaluate the efficiency of measures.

- OEIWG is working on a set of core indicators to monitor the global targets of the Sendai Framework. The group is building collaboration between NSOs and disaster risk agencies.

- The first discussion on measuring extreme events among statistical, meteorological and other climate communities highlighted the need to continue to work together to respond to the increasing need for better data on extreme events and disasters. NSOs could help coordinate and bring together the relevant data needed for disaster management at the national level, and provide guidance on the standardization of data in line with internationally agreed statistical standards.

Session 7 – The way forward

The session was organized by chair of the Expert Forum, Ms. N. Holmengen (Norway). The aim was to identify concrete steps to be taken in implementing the *CES Recommendations* and carrying out further work in climate change-related statistics.

The key outcomes of the Expert Forum:

- **New data needs are arising** from various global initiatives of high political importance, in particular the existing and new climate agreements, SDGs and the Sendai framework for disaster risk reduction.

- **High-level support** from the management of NSOs, inventory agencies, other stakeholders and policy makers is crucial for developing climate change-related statistics. The UNECE Steering Group will consider how to demonstrate to stakeholders the benefits from collaboration with statisticians and from using official statistics for the monitoring of climate change.

- **Increased collaboration** involving NSOs, agencies responsible for GHG inventories and other data producers is crucial for ensuring high quality reporting under UNFCCC. In addition to GHG inventories, national statistical offices' data are needed much more widely under the UNFCCC reporting as baseline data for emission projections and reporting on national circumstances, climate change adaptation and mitigation,

technological exchange, financial resources and education. The UNECE Steering Group will identify actions to align work among different communities producing these data.

- The statistical community is **developing good practices** in the field of climate change-related statistics: The Expert Forum provided examples of new statistics on issues related to climate change and arrangements for better collaboration among agencies involved in compiling GHG inventories. Countries asked the UNECE Steering Group to collect examples of good practices and make them available as a web repository to illustrate how the *CES Recommendations* could be implemented.

- Countries asked for support for preparing national development plans to develop climate change-related statistics. The UNECE Steering Group will **develop a road map** with a tool for **prioritizing national actions**.

- **The UNECE Expert Forum should be continued** to share experience and good practices and increase collaboration between NSOs, agencies responsible for GHG inventories and international organizations. The Expert Forums also guide the work of UNECE Task Forces by providing feedback from the wider expert community.

- **Capacity building will be necessary** to meet the increasing demand, e.g. to improve data for GHG inventories, increase availability of more disaggregated and geo-referenced climate-relevant data, and develop new statistics to fill gaps. The UNECE Steering Group will consider possible mechanisms to provide such support to countries. The countries of Eastern Europe, Caucasus and Central Asia asked for a review of their challenges and suggested organizing special sessions at future Expert Forums.

- The Expert Forum provided input to the **UNECE Task Force on a set of key indicators** by ranking policy questions. The Task Force will use the result for selecting the key indicators and take into account the related data needs of SDGs, the Sendai framework and reporting under UNFCCC. The Task Force will present the initial indicator set for discussion at the next Expert Forum.

- A recurring issue at the Expert Forum was the importance of **joint international work across statistical, climate, spatial, disaster risk and user communities**. There is a need for clear definition of roles and responsibilities, especially in the measurement of extreme events and disasters. The UNECE Task Force is reviewing the possible role of NSOs and their data in this area, and will report back to the Expert Forum in 2016.

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