

CONFERENCE OF EUROPEAN STATISTICIANS

Approved

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Geneva (Switzerland), 16-17 October 2019

Item 4 (d) of the Provisional  
Agenda

**MEASURING HAZARDOUS EVENTS AND DISASTERS –  
PROPOSAL FOR FURTHER WORK**

**Prepared by the Task Force and the Secretariat**

*In June 2019, the Conference of European Statisticians (CES) endorsed the “Recommendations on the role of official statistics in measuring hazardous events and disasters”, subject to the comments received through an electronic consultation with CES members in May this year.*

*The Recommendations identified a number of issues which should be addressed in further work.*

*The Bureau discussed and provided feedback on the suggested action points for further work and a proposal to renew the mandate of the existing Task Force to address some of these issues. The Secretariat will prepare new terms of reference for the Task Force on Measuring Hazardous Events and Disasters and present them to the Bureau at its next meeting.*

**I. BACKGROUND**

1. The Bureau of the Conference of European Statisticians (CES) set up the Task Force on Measuring Extreme Events and Disasters in February 2015 as a follow-up to an in-depth review of this topic carried out in October 2014. The main objective of the Task Force was (i) to clarify the role of official statistics in providing data related to extreme (a term later replaced by ‘hazardous’) events and disasters, and (ii) to identify practical steps for NSOs, in coordination with national Disaster Risk Management Agencies (DRMA), to support disaster risk reduction.

2. The Task Force comprised experts from the statistical offices of Armenia, Italy (Chair), New Zealand, Republic of Moldova, Mexico, South Africa and Turkey, and the following international organisations: Economic Commission for Latin America and the Caribbean (ECLAC); European Space Agency (ESA), Eurostat, Food and Agriculture Organization of the United Nations (FAO), United Nations Office for Disaster Risk Reduction (UNDRR), Joint Research Centre of the European Commission, United Nations Economic Commission for Europe (UNECE), United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), World Health Organization (WHO) and the World Meteorological Organization (WMO). Furthermore, the Group on Earth Observations (GEO) participated in the work of the Task Force.

3. CES endorsed in June 2019 the *Recommendations on the role of official statistics in measuring hazardous events and disasters* prepared by the Task Force, subject to comments received from the CES members during an electronic consultation in May 2019.

4. The document presents recommendations for those national statistical offices (NSOs) and other organisations within national statistical systems (NSS), who would like to engage more in the emerging topic of statistics related to hazardous events and disasters (HED). NSS in every country holds a wealth of information that may be applied in all phases of disaster risk management. In addition, national statistical systems have other competencies that are useful in the work in this area; notably, experience in coordinating different data producers; use of common standards and classifications; and adherence to strict professional principles and quality criteria. However, national statistical systems are often not involved in supporting disaster risk management to the extent they could be.

5. The Task Force identified a list of issues for further work, presented in Chapter 9 of the Recommendations. The proposals are summarised below. The additional proposals for future work coming through the CES electronic consultation have been taken into account.

6. The Conference in June 2019 supported the continuation of the work on statistical operationalisation of measuring hazardous events and disasters, as well as on other issues for further work listed in chapter 9 of the Recommendations.

## II. RECOMMENDATIONS FOR FURTHER WORK

7. The *Task Force on Measuring Extreme Events and Disasters* identified the following issues that should be addressed to further improve statistics for measuring hazardous events and disasters:

### A. Implementation guidelines

8. The *Recommendations*, together with the *Disaster-related Statistics Framework* (DRSF) developed by ESCAP, provide a useful tool helping to begin or to improve producing official statistics related to hazardous events and disasters. However, more **practical guidance for implementation** is needed, taking into account the different national priorities, institutional settings and already available data. This guidance could be in a form of a road map and it should help to prioritise the required actions.

9. The implementation guidelines should also address which measures can be taken to use the required statistical information for disaster-risk management while preserving statistical confidentiality. National cases studies could be useful for that purpose.

### B. Statistical operationalization of terms, definitions and classifications used in disaster risk management

10. Many of the terms, definitions and classifications used in disaster-risk management and in the Sendai Framework are not fully operational from a statistical perspective. During the electronic consultation on the Recommendations before their endorsement by CES, a number of countries emphasised the importance of statistical operationalization of the key terms, definitions and classifications used in disaster risk management. DRSF developed by ESCAP addresses some of these issues, but further work is needed, for example to:

- a) develop a single internationally agreed hazard classification, following the principles of a statistical classification;
- b) define the spatial and temporal dimension of hazards and disasters;
- c) develop an internationally comparable way of scaling of hazards and disasters;
- d) draft recommendations for measuring multiple-hazard events;
- e) further develop a globally unified coding of hazardous events, which could be based on the *Identifiers for Cataloguing Extreme Weather, Water and Climate Events*. These identifiers were developed by WMO based on a decision of the Seventeenth Session of the World Meteorological Congress in 2015.

11. The Task Force concluded that more work is needed towards aligning the DRSF and Sendai Framework indicator methodologies with the existing classification systems and statistical frameworks, such as the System of National Accounts (SNA), the System of Environmental-Economic Accounting (SEEA), the International Statistical Classification of Diseases and Related Health Problems (ICD) and the International Standard Classification of Occupations (ISCO).

12. A review of the statistical standards, methods and classifications could be also needed from the viewpoint of better supporting the production of hazardous events and disaster related information.

### **C. Set of core statistics and indicators**

13. Several countries are developing indicator sets for HED policy purposes. This work should be internationally coordinated to ensure availability of comparable official statistics and to maximise its use. A recommended **set of core statistics and indicators** could help countries to prioritise their implementation efforts and to have an internationally comparable set of information on hazardous events and disasters. The set of statistics and indicators should be complementary with the already existing UNECE set of core climate change-related statistics and indicators.

14. The set of core statistics should also include the official statistics required quickly and in sufficient quality in emergency situations (“**emergency data kit**”). The disaggregations of information needed for the different uses, such as disaggregation by sex, age-group, income, economic activity, etc., should be identified and taken into account.

### **D. Establishing a community of practice, exchange of experience and knowledge**

15. During the course of its work, the Task Force has established good working relationships with ECLAC, ESCAP, Eurostat, FAO, WMO, UNDRR, UNFCCC, UNSD, UN-GGIM and other key players working on this emerging issue. NSOs and other members of NSS need to continue engaging with these and other organisations to further define and establish the role of official statistics in this area. However, as noted in the report on disaster-related statistics to the 2019 meeting of the UN Statistical Commission (UNSD et.al., 2019), there is currently no formalised mechanism in place to ensure long-lasting cooperation across disciplines and organisations for this kind of information. Presently, coordination and cooperation occur on an ad-hoc basis within technical expert groups with different mandates. Formalisation of the coordination and cooperation efforts may be needed to develop common strategies, to address the diverse community of practice, to jointly develop methodologies and terminologies, and to efficiently support sustainable implementation.

16. To support these efforts the Task Force suggests creation of a forum for regular exchange of knowledge and experience on HED-related information similar to the UNECE Expert Forum for Producers and Users of Climate Change Related Statistics.<sup>1</sup> Such a forum would provide an opportunity for sharing ideas, experience and good practices, identifying challenges and possible solutions, and discussing collaboration, coordination and roles among the statistical community, other involved agencies and the relevant international organizations.

### III. POSSIBLE NEXT STEPS

17. The Task Force that prepared the Recommendation was set up in 2015. Its members would be interested to continue the work to help implement some of the Recommendations that they have developed. Therefore, it is proposed to renew the mandate of the existing Task Force.

18. Under a renewed mandate, the Task Force could address several of the issues listed above as follows:

- (a) Drafting implementation guidelines;
- (b) Recommending a set of core statistics and indicators for measuring hazardous events and disasters, including an “emergency data kit”;
- (c) Organizing an expert meeting for exchange of experience and knowledge across different communities (e.g. statisticians, DRM experts, international organisations, academia, NGOs etc.), possibly jointly with other Regional Commissions, UNSD and UNDRR;
- (d) Providing contributions to global efforts to improve the statistical operationalisation of Sendai Framework terminology and indicator methodologies.

19. A close collaboration of the Task Force with other Regional Commissions, UNDRR, UNSD and other key players is needed to use synergies, ensure complementarity of work and to avoid duplication.

### IV. ACTION REQUESTED FROM THE BUREAU

20. **The Bureau is invited to discuss and provide feedback on the suggested way forward.**

21. Subject to the agreement and comments by the Bureau, the Secretariat will prepare new terms of reference for the Task Force on Measuring Hazardous Events and Disasters and present them to the Bureau at its next meeting.

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<sup>1</sup> See <http://www.unece.org/statistics/meetings-and-events.html?id=3214#/0/0/0/41189/>.