

CONFERENCE OF EUROPEAN STATISTICIANS

For discussion and
recommendations

Meeting of the 2014/2015 Bureau
Geneva (Switzerland), 21-22 October 2014

Item 2 (b) of the Provisional
Agenda

**COMMENTS ON THE IN-DEPTH REVIEW OF MEASURING DISASTERS AND
EXTREME EVENTS**

Prepared by the Secretariat

*The note provides the comments from UNECE as input to the in-depth review of
measuring extreme events and disasters.*

I. INTRODUCTION

1. The note is prepared based on an internal brainstorming in the UNECE Statistical Division on measuring extreme events and disasters.
2. The document “In-depth review of measuring extreme events and disasters” (ECE/CES/BUR/2014/OCT/3), prepared by Mexico provides a very good overview of the activities in this area at international level.
3. There are many similarities between the work on measuring extreme events and disasters and the work on climate change related statistics:
 - (a) First, it is important to define what is the role of official statistics in this area. The paper by Mexico notes that in case of disasters, statistical offices are one of the first sources asked to provide data on the persons, businesses and areas affected;
 - (b) Next, we should define the scope of statistics related to extreme events and disasters, what statistical offices can contribute and what users need, which statistics could be readily available and what would need to be developed in future;
 - (c) There is a need for collaboration with other institutions, such as the UN agencies dealing with the issue, World Bank, CRED, etc.
 - (d) Para 101 of the paper by Mexico lists well the issues to be tackled, such as agreeing on common classification and definitions, defining a typology of disasters for statistical purposes, etc.;
 - (e) The role of geospatial information is very important in relation to extreme events and disasters. UNECE has been asked to be involved in the recently established Global Geo-spatial information Management (GGIM)-Europe.
4. UNECE has experience from the Task Force on climate change related statistics how to deal with such issues and how to involve the other international players. Any further work

in this area should be undertaken in collaboration with other involved international agencies, including the regional commissions (ESCAP and ECLAC).

5. The UN International Strategy for Disaster Risk Reduction (UNISDR) is currently consulting with countries a pre-zero draft of the post-2015 framework for Disaster Risk Reduction (DRR), in preparation for the Third World Conference on this topic (to be held 14-18 March 2015). An informal working group on targets and indicators has been set up. The following five global targets in the post-2015 framework are related to DRR:

- (a) reduce disaster mortality by [a given percentage in function of number of hazardous events] by 20[xx];
- (b) reduce the number of affected people by [a given percentage in function of number of hazardous events] by 20[xx];
- (c) reduce disaster economic loss by [a given percentage in function of number of hazardous events] by 20[xx];
- (d) reduce disaster damage to health and educational facilities by [a given percentage in function of number of hazardous events] by 20[xx], and
- (e) increase number of countries with national and local strategies by [a given percentage] by 20[xx].

6. The aim of the informal working group on targets and indicators is to provide advice on the indicators for monitoring and reporting, on the exact percentages and dates to be included in the targets, and on the linkages with sustainable development goals, and climate change. A system of indicators which is currently used does not include statistical indicators but indicators on the existence of specific policies, monitoring systems, etc. (input indicators). Outcome and output indicators will be needed to measure the achievement of four of the five targets above. Cooperation with statistical systems will be important to avoid duplication of effort in providing these data.

7. Some other comments from the internal brainstorming of the UNECE Statistical Division are provided below:

- There is no common terminology in this area. Even the term “disaster” can have different interpretations. Some UN documents do not recommend using the term “natural disaster” “as it conveys the mistaken assumption that disasters occurring as a result of natural hazards are wholly “natural”, and therefore inevitable and outside human control. Instead, it is widely recognized that such disasters are the result of the way individuals and societies relate to threats originating from natural hazards.[..] The expression “disasters associated with natural hazards” should therefore be used.”¹
- There is no common typology of disasters. The paper refers to a disaster classification used by ECLAC, based on the UNISDR classification (p.4). However, the Framework for the Development of Environment Statistics (FDES) which was adopted as a standard in 2014, recommends using the classification of the CRED EM-DAT database (<http://www.emdat.be/classification>).

¹ WHO glossary of Humanitarian Terms: www.who.int/hac/about/definitions/en/

- Measurement of disasters has implications and links with different areas of statistics, for example national accounts (how to take into account the impact of disasters), population and housing censuses (collecting information on dwellings or buildings). Exchange of experience of how different countries are dealing with these issues in their official statistics would be useful.
- On the one hand, there is duplication of information between different agencies, at the same time lack of adequate and timely data.
- The UN Global Pulse initiative can be added to the list of UN organizations dealing with issues related to measuring disasters and extreme events (see Annex).

ANNEX

UN Global Pulse initiative

7. A United Nations Global Pulse initiative, launched in 2009, is exploring innovative methods and frameworks for combining new types of digital data with traditional indicators to track global development in real-time. In collaboration with UN partners and public sector institutions, Global Pulse identifies problems that could be addressed through real-time monitoring of digital data. It conducts applied research projects to discover practical uses of Big Data to solve these challenges and prototype technology tools for monitoring development progress and tracking emerging vulnerabilities.

The initiative is partially related to improving disaster preparedness as it attempts to bring real-time monitoring and prediction to development and aid programs.

In 2014, the Global Pulse was seeking recently implemented or published projects and initiatives that use Big Data and analytics to show the economic implications of climate impact and opportunities to manage climate risks. The Global Forest Watch², a dynamic online forest monitoring and alert system developed by the World Resources Institute with over 40 partners, was selected as one of two winners of the Big Data Climate Challenge. The second winner was a tool for climate-smart agriculture³ developed by the International Center for Tropical Agriculture (CIAT) that uses harvest monitoring data with climate data and seasonal forecasts. The tool generates farming recommendations for rice growers in Colombia.

The Global Pulse often launches similar innovation programmes focusing on sectors such as food security, agriculture, employment, infectious disease, urbanization and disaster response. The work is done in partnership with organisations having the relevant data sources, data analytics and data science expertise, and in collaboration with the UN agencies and government ministries who could benefit from new insights and real-time measurement tools.

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² Global Forest Watch: www.globalforestwatch.org

³ www.aclimatecolombia.org/