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## Economic Commission for Europe

### Conference of European Statisticians

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Item 8 (a) of the provisional agenda

#### **Programme of work of the Statistics subprogramme of the United Nations Economic Commission for Europe**

#### **Reports on the work of the Conference of European Statisticians, its Bureau and Teams of Specialists**

## **Implementation of the United Nations Economic Commission for Europe Statistical Programme 2020**

### **Addendum**

### **Report of the First Expert Forum for Producers and Users of Disaster- related Statistics**

### **Note by the Secretariat<sup>1</sup>**

#### *Summary*

The document presents the key outcomes of the Expert Forum for Producers and Users of Disaster-related Statistics which took place as an online meeting on 7, 8 and 10 June 2021.

The report is submitted to the Conference of European Statisticians for information.

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<sup>1</sup> This document was submitted late for document processing as clearances from relevant parties were received late.



## I. Attendance

1. The Expert Forum was attended by Albania, Algeria, Antigua and Barbuda, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Brazil, Bulgaria, Cabo Verde, Cameroon, Canada, Costa Rica, Côte d'Ivoire, Croatia, Chile, Czechia, Colombia, Cyprus, Denmark, Dominican Republic, Egypt, Equatorial Guinea, Eswatini, France, Gambia, Ghana, Greece, Hungary, India, Iran (Islamic Republic of), Ireland, Israel, Italy, Japan, Kuwait, Lebanon, Lithuania, Libya, Mauritius, Mongolia, Montenegro, Morocco, Mexico, Nepal, Netherlands, New Zealand, Oman, Philippines, Poland, Qatar, Republic of Korea, Republic of Moldova, Russian Federation, Saudi Arabia, Senegal, Serbia, Seychelles, Spain, Sri Lanka, Suriname, Sweden, Thailand, Togo, Tunisia, Tuvalu, Uganda, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, United States of America, Uzbekistan and Yemen.

2. The Expert Forum was also attended by representatives from the Inter-Secretariat Working Group on Household Surveys, Office for the Coordination of Humanitarian Affairs (OCHA), UN Office for Disaster Risk Reduction (UNDRR), United Nations Statistics Division (UNSD), UN Economic Commission for Africa (UN ECA), UN Economic Commission for Latin America and the Caribbean (UN ECLAC), UN Economic and Social Commission for Western Asia (UN ESCWA), United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP), United Nations Development Programme (UNDP), UN Women, United Nations High Commissioner for Refugees (UNHCR), United Nations Population Fund (UNFPA), Food and Agriculture Organization (FAO), International Institute for Educational Planning-UNESCO, United Nations Industrial Development Organisation (UNIDO), World Health Organization (WHO), World Meteorological Organization (WMO), International Monetary Fund (IMF), Asian Disaster Reduction Centre, Eurostat, European Central Bank (ECB), European Commission, DG-CLIMA, Caribbean Development Bank, Comisión Nacional de Prevención de Riesgos y Atención de Emergencias (CNE), Coordination Center for Prevention of disasters in Central America (CEPREDENAC), GCC-STAT, Group on Earth Observations (GEO), International Committee of the Red Cross (ICRC), Interstate Statistical Committee of the Commonwealth of Independent States (CIS-STAT), Japan International Cooperation Agency (JICA), Organisation for Economic Cooperation and Development (OECD), the Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC), and the World Bank Group.

3. Participants from the following NGOs also took part in the Expert Forum: Coastal Area Disaster Mitigation Efforts (CADME), Club Ohada Thies, EVRESKO / EKAPRAEKT, Génération Maastricht, and Scientific Research Institution "Scientific Research Institute of Ecological Problems". Participants from other sectors include All-Russia Scientific Research Institute of Civil Defense and Emergency, Austrian Weather and Geophysical Service (ZAMG), Coordination Center for the Prevention of Natural Disasters in Central America (CEPREDENAC), Eastern Africa Statistical Training Centre (EASTC), Future Party, Institute of Geography, National Autonomous University of Mexico (UNAM), Instituto de Direito, Economia Criativa e Artes, Indonesian Statistics Society Forum, International Institute of Earthquake Engineering and Seismology, Mahia de Kognita, Tohoku University, Universitas Pembangunan Nasional Veteran Yogyakarta, University of Coimbra, and University of Porto - Faculty of Engineering, Midsummer Analytics, Research in Environmental Accounting and Statistics, SINAPROC, Swiss Sendai Framework Focal Point, Euro-Mediterranean Centre on Climate Change, National Unit for Disaster Risk Management – UNGRD, Palestinian Central Bureau of Statistics, and Ukrainian HydroMeteorological Center (UHMC).

## II. Organization of the meeting

4. The expert forum was organised in form of two similar online sessions each day to accommodate different time zones. The morning sessions were held from 9:00 – 12:00 CEST

with English-Russian interpretation, and the afternoon sessions were held from 15:00 – 18:00 CEST in English only.

5. The event was structured as follows:
  - (a) Session 1: Disaster-risk reduction: The role of official statistics (7 June 2021);
  - (b) Session 2: Managing health and climate change-related hazards with official statistics (8 June 2021);
  - (c) Session 3: The geospatial dimension (10 June 2021);
  - (d) Session 4: Informing disaster-risk reduction with official statistics: need for action (10 June 2021).
6. Chairs of the expert forum were Mr. Puji Pujiono (Indonesian Statistics Society Forum) and Ms. Angela Ferruzza (Italian National Institute of Statistics).
7. All documents and video recordings of the sessions are available at: <https://unece.org/info/Statistics/events/354927>.

#### **A. Session 1 – Disaster risk reduction: the role of official statistics**

8. The morning session was chaired by Mr. Puji Pujiono (Indonesian Statistics Society Forum) and the afternoon session by Ms. Angela Ferruzza (Italian National Institute of Statistics).
9. The panel discussions of that session were moderated by Mr. Daniel Clarke (OECD, morning session) and by Ms. Alda Lisbeth Diaz Cavallo (ECLAC, afternoon session).
10. The main objective of the session was to facilitate the communication between producers and users of disaster-risk-related information. This should help to understand user’s needs and to showcase what Official Statistics can offer, what different communities can contribute to official statistics, and to identify synergies and possible shortcomings.
11. In their opening remarks the Directors of the Statistics Divisions of all five United Nations (UN) Regional Commissions, the Director of UNSD and the Chief of the United Nations Office for Disaster Risk Reduction (UNDRR) Risk Knowledge, Monitoring and Capacity Development Branch highlighted the importance of high-quality statistics for managing disaster risk, and the need for closer collaboration among statisticians, disaster-risk experts and research. The high-level speakers from UN Regional Commissions and UNDRR expressed their commitment for supporting also future efforts to strengthening collaboration among these expert communities. They welcomed the organisation of this first global expert forum for producers and users of disaster-related statistics, which is planned to become a regular event organised by another Regional Commission each year.
12. The keynote speech was given by Ambassador Wayne McCook, the former Chair of the “Open-ended Intergovernmental Expert Working Group (OIEWG) on Indicators and Terminology Relating to Disaster Risk Reduction” and former Ambassador of Jamaica to the United Nations and its specialised agencies in Geneva. In his speech Ambassador McCook mentioned the critical role of statistical authorities and their expertise which has been recognised throughout the process of developing the Sendai Framework indicators. He reminded participants that the OEIWG recognised the crucial role of National Statistical Offices (NSOs) in data collection, processing and disaggregation in its report, which was endorsed by the UN General Assembly in February 2017.
13. The substantive part of the session was opened with short presentations on important international frameworks, recommendations and classifications for producers of disaster-related statistics. This included the “Disaster-related Statistics Framework” developed by an ESCAP expert group, the “CES Recommendations on the Role of Official Statistics in Measuring Hazardous Events and Disasters” drafted by an UNECE task force, and the “Reviewed Hazard Classification and Terminology” of UNDRR/ISC. Longer versions discussing these normative documents in more detail were available as pre-recorded presentations on the meeting webpage.

14. The session was concluded with a discussion about the main gaps between demand and availability of official statistics for disaster-risk management. Panellists of the morning session represented the Indonesian Statistics Society Forum, the Central Statistics Office of Ireland, the National Emergency Agency of Mongolia, the Ministry of Emergency Situations of the Russian Federation and UNDRR. Panellists of the afternoon session were representatives of the Disaster-Risk Management Authority of Colombia, Public Health England, Statistics Netherlands, the Coordination Center for the Prevention of Natural Disasters in Central America (CEPREDENAC), and a consultant to the World Bank Pandemic Preparedness and Response Project.

15. One important conclusion of the session was that there is still a need to match better the disaster-risk management (DRM) information demand with available official statistics to produce comparable information for all phases of DRM. DRM experts often are not aware of the benefits of using official statistics, and official statistics sometimes is not fit for purpose. This is mainly in terms of data disaggregation (e.g. vulnerable population groups) and timeliness. The efforts of international working groups to review classifications, to provide practical guidance and to establish platforms for exchange of knowledge and experience are seen as very important. Several countries have already established national expert groups and/or coordination bodies allowing collaboration among the relevant governmental bodies. This also helps NSOs to better understanding the user demand and to make official statistics fitter for DRM.

## **B. Session 2 – Managing health and climate change-related hazards with official statistics**

16. The morning session was chaired by Ms. Wafa Aboul Hosn (ESCWA) and the afternoon session by Ms. Alda Lisbeth Diaz Cavallo (ECLAC).

17. The panel discussions were moderated by Ms. Rikke Munk Hansen (ESCAP, morning session) and by Prof. Virginia Murray (Public Health England, afternoon session).

18. One main objective of the session was to learn from good practices on the production and use of disaster-related statistics.

19. The substantive part of the morning session started with a joint presentation on activities related to measuring climate change and health in the ECA, ECE, ESCAP and ESCWA regions:

(a) ECA has established the African Climate Policy Centre (ACPC), as a hub for knowledge generation on climate change in Africa. The Centre implements the Climate for Development in Africa Programme (ClimDev-Africa) which is a joint initiative of the African Union Commission (AUC), the United Nations Economic Commission for Africa (ECA) and the African Development Bank (AfDB). The programme aims at coordinating and strengthening the policy response to climate change, building the capacities of sub-regional and national organizations, and improving the analytical capacity, knowledge management and dissemination of information on climate change. Furthermore, ECA is building a monitoring, evaluation and response management system to direct response teams to critical and vulnerable areas.

(b) ECE has two main work streams related to measuring climate change and health. The Task Force on Measuring Hazardous Events and Disasters which was established in 2015, and the Steering Group on Climate Change-related Statistics, which was established in 2012. The main objectives of that expert groups are developing guidelines for NSOs to producing the related statistics (methodological work), providing platforms for sharing experience and knowledge and capacity development. Important outputs of work include the CES Recommendations on CC-Related Statistics (2014), the CES Core Set of CC-Related Statistics and Indicators (2020) and the CES Recommendations on the role of official statistics in measuring hazardous events and disasters (2019).

(c) ESCAP has prepared several reports, discussion papers and guidance documents in response to measurement challenges related to climate change, health, and in particular to addressing the COVID-19 pandemic. Examples for this include the “Socio-

Economic Response to COVID-19: ESCAP Framework” developed to support countries and provide policy advice and tailored capacity building activities at the regional, subregional and country levels for the immediate socio-economic response to COVID-19. Another example is the “Asia-Pacific Plan of Action on Space Application for Sustainable Development (2018–2030)” a regionally-coordinated, inclusive and country-needs driven blueprint that harnesses space and geospatial applications and digital innovation to support countries, especially those with special needs, to achieve the 2030 Agenda. ESCAP also published the “Accelerating Implementation of the Paris Agreement in Asia-Pacific: A Guide for Policymakers” which provides tools, measures, policies, actions, and case studies that could be applied to their national circumstances and update of their NDCs during the review process.

(d) ESCWA implemented the United Nations Development Account (UNDA) project on “Developing the Capacities of the Arab Countries for Climate Change Adaptation by Applying IWRM Tools”. It furthermore developed Training modules built upon the Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR) to assist Arab countries in developing their adaptive capacity by applying IWRM tools in five strategic sectors, namely: Agriculture, environment, health, human settlement and economic development.

20. The substantive part of the afternoon session started with an overview on activities related to measuring climate change and health in the ECLAC region, including a presentation of the Damage and Loss Assessment (DALA) database. ECLAC has been a pioneer in the field of disaster assessment and in the development and dissemination of a disaster assessment methodology, starting already in 1973 with assessments of the social, environmental and economic effects and impacts of disasters in 28 countries in the region. ECLAC developed a Handbook for disaster assessment in 1991, its last edition was published in 2014.

21. These presentations were followed by a sub-session on managing health related hazards with official statistics. It was opened in both the morning and afternoon sessions by a presentation of the World Health Organization (WHO) on using official statistics in managing health emergencies and disaster including climate change impacts. The WHO representative showed how much the entire Health Risk Management Cycle builds on statistics. Considerations for statistics needed in health include the disaggregation by gender and age, to be inclusive, to be accessible, confidential as well as validated by appropriate authorities.

22. In the morning session Austria presented some of the contributions Statistics Austria made to support managing the COVID-19 disaster. This included the production and publication of weekly, monthly and quarterly data on the economic and social impacts of the pandemic. Furthermore, Statistics Austria carried out several COVID-19 prevalence studies and has established the “Austrian Recovery Barometer”.

23. Also in the morning session, Bhutan presented their “Rapid Socioeconomic Impact Assessment of COVID-19 on Tourism and Allied Sectors”. The survey has revealed useful data and insights into the immediate change in livelihoods, but it had limitations in terms of fully understanding the extent and nature of vulnerability due to its narrow scope.

24. In the afternoon session United Kingdom presented their COVID-19 infection survey and what was learned from it. The main aim of the survey was to measure rates of infection and how many people have developed antibodies to the virus over time.

25. Also in the afternoon session, Canada presented Statistics Canada’s responses to COVID-19 information needs. Key principles and lessons learned from their various activities are: Be relevant and timely (speed trumps perfection); Use innovative methods; Take decisions rapidly; Use external partnerships; and act within the legislative framework.

26. The main lessons learned from countries presenting in this sub-session are the importance of reliable information as provided by official statistics, the need to speeding up processes to produce short-term data (speed trumps perfection), to focus on the strengths of the NSO, and to establish good cooperation mechanisms within the NSO and with other government entities.

27. The second sub-session discussed how climate change-related hazards can be managed with official statistics. It was opened in both the morning and the afternoon sessions with a presentation of the World Meteorological Organization (WMO) on the “WMO Cataloguing of Hazardous Events (WMO-CHE)”.

28. After that, in the morning session national examples of Bangladesh and the Netherlands, and in the afternoon session examples of Suriname and the Arab Region were presented.

29. Bangladesh conducted a household survey in 2015 which already included questions on disaster-induced losses, health conditions, status of vulnerable populations as well as on knowledge about disasters and climate change. The data were updated with a specific disaster-related statistics survey in 2020. New features of the 2020 survey included information about disaster-related affected population, climate induced migration and unemployment etc.. Main challenges were issues related to data accessibility, quality and timeliness as well as the complex accountability among NSO and other governmental agencies.

30. The Netherlands gave an overview on several activities related to measuring hazardous events in general and climate change-related hazards in particular. An important distinction the Netherlands is made between sudden disasters, such as flooding, and slow-onset disasters, such as droughts. The statistics are produced in partnership of Statistics Netherlands with the other governmental agencies and the Wageningen University. Statistics Netherlands applies the Disaster-related Statistics Framework developed by ESCAP. Disaster-related statistics are used in different key publications, such as the “Monitor of Well-being and SDGs”, the “Environmental Data Compendium” or the “COVID-19 impact dashboard”. Netherlands also uses SEEA Ecosystem Accounting for assessing the monetary loss of ecosystem services and ecosystem assets caused by disasters.

31. Suriname presented its experience in using official statistics for managing climate change-related hazards. One specific focus is in measuring population affected by climate-related disasters. For that the NSO uses official population data from the population census, mid-year estimates and data from the Central Registry Office (population by location, age, sex and age/household size) in combination with data from the National Coordination Center for Disaster Relief and the fire department. The data is published in the regular environment statistics publications. For 2022 a special climate change statistics report for Suriname is planned.

32. ESCWA presented their work and experience in using official statistics in the preparation of the vulnerability assessments under the Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR). The main objective is to assess the impact of climate change on freshwater resources in the Arab Region through a consultative and integrated regional initiative that seeks to identify the socio-economic and environmental vulnerability caused by climate change impacts on water resources based on regional specificities. The Essential Climate Variables (ECV) datasets produced by the project provide the empirical evidence needed to understand and predict the evolution of climate. The ECV datasets are observed data that inform official statistics. They are available via the regional knowledge hub and in form of a publication series.

33. The session was concluded with a panel discussion with producers and users of statistics on climate change and health-related hazards. Participants of the panel discussion in the morning session were from Statistics Austria, Bangladesh Bureau of Statistics, National Statistics Bureau of Bhutan, WHO, WMO and Tonkin + Taylor from New Zealand. Participants of the panel discussion in the afternoon session were from Statistics Canada, General Bureau of Statistics Suriname, ONS UK, the National Oceanic and Atmospheric Administration of the United States of America (US NOAA), WHO and WMO.

34. From the presentations and discussions at the session the following key themes were arising:

- (a) Data standards and classifications including data harmonisation and quality;

- (b) Clearer understanding of wider impacts (e.g.: social/economic/political) on data;
- (c) Stronger leadership and governance for use of the “right” information in disaster risk management and how to keep the trust in official information, specifically in emergency situations;
- (d) Communication to policymakers and the wider public and communication between statisticians and health experts;
- (e) Generalisability: Methodology to enable successful transfer of international learning to a national level;
- (f) Partnerships: How to make Statisticians and Health- CC experts make speak together in countries, coordinate their communication, streamline their information flows?

### C. Session 3 – The geospatial dimension

35. The morning session was chaired by Ms. Rikke Munk Hansen (ESCAP) and the afternoons session by Ms. Wafa Aboul Hosn (ESCWA). The chairs also moderated the panel discussions of that session.

36. The main objective of the session was to showcase how geospatial data and Earth observations can be used in the production of official statistics that integrate the spatial dimension of disaster risk, exposure and impact.

37. Both the morning and afternoon sessions were opened with short updates on related activities of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) and the Group on Earth Observations (GEO). Longer versions of these presentations are available in form of pre-recorded videos at the meeting webpage.

38. In the morning session Statistics Ireland presented Ireland’s integrated response to COVID-19, which builds upon the existing SDG reporting ecosystem and its geospatial datasets. The Irish SDG team refocussed its work to COVID-19. In its internal hub sensitive data is maintained. This internal site is only accessible in a secure manner by authorized individuals. Some examples of the data on this internal hub are:

- Hospital admissions and discharges, by date, age and gender of patients
- ICU beds - occupied, by age, gender, dates of admission and discharge of patients, and this data is available for each hospital in Ireland
- Infections reported by geography, date, age, and gender
- Testing, dates of referral, test, lab results. Also the geography of the individuals tested
- Throughput of testing labs by date.

39. In the afternoon session United Nations Office for the Coordination of Humanitarian Affairs (OCHA) Lebanon reported about the use of geo-data after the Beirut Port Explosions on 4 August 2020. Remote sensing data coupled with ground checking was used for several purposes, including the assessment of the damage impact, the development of operational zones to help coordinate and collaborate on relief efforts at the operational level and the assessment of the socio-economic vulnerability of the population. Official statistics, e.g. from the Labour Force and Household Living Condition Survey provided an important foundation for the quick assessments done with the help of remote sensing data.

40. The presentations were followed by a panel discussion. Panellists discussed their experience in using geospatial data and how they leveraged guiding frameworks, like the “Strategic Framework on Geospatial Information and Services for Disasters” to strengthen the use of geospatial information within their national ecosystems. Panellists of the morning session represented the Jucar River Authority (Spain), Central Statistics Office of Ireland, the Group on Earth Observations and the National Mapping and Resource Information Authority (NAMRIA) of the Philippines. Panellists of the afternoon session represented

DANE Colombia, the Office of Disaster Preparedness and Emergency Management (OPEDEM) Jamaica, the Central Administration of Statistics of Lebanon and the World Bank.

#### **D. Session 4 – Informing disaster risk reduction policy with official statistics: need for action**

41. The session was chaired by Mr. Puji Pujiono (Indonesian Statistics Society Forum) in the morning and by Ms. Angela Ferruzza (Italian National Institute of Statistics) in the afternoon.

42. The main objective of the session was to identify priority topics which could be addressed by the IAEG on Disaster-related Statistics and/or discussed at the next Expert Forum.

43. Participants of the Expert Forum concluded that work has to continue on national and international levels to match better DRM information demand with available official statistics to produce comparable information for all phases of DRM. DRM experts often are not aware of the benefits of using official statistics, and official statistics sometimes is not fit for purpose.

44. The most important areas of work are to:

(a) Establish and maintain a community of practice, including Statisticians, DRM experts, researchers and NGOs;

(b) Improve quality of key statistics (demographic, social, business etc.), and in particular timeliness of data;

(c) Develop methods to fill data gaps;

(d) Review existing statistical classifications.

45. Possible research topics identified by participants include:

(a) Theme 1: Data Standards

i. What official and unofficial data is currently available to inform DRM? What is the quality of this data? How can we use the data better?

ii. When do emergency and disaster (hazardous events) start and stop?

iii. What should a data and statistical framework look like?

(b) Theme 2: Clearer Understanding of Wider Impacts

iv. How do we measure social/economic/political impact on disaster related statistics and mortality/morbidity?

(c) Theme 3: Stronger Leadership and Governance

v. How do we develop transparency, quality and trust as a tapestry of ONS roles?

vi. How to keep the trust in official information, specifically in emergency situations?

(d) Theme 4: Communication

vii. How do we develop effective communication with policymakers and the wider public?

viii. How do we develop effective communication between statisticians and health experts?

(e) Theme 5: Generalisability

ix. What methodology do we need to enable successful transfer of international learning to a national level?

(f) Theme 6: Partnerships and data ecosystems

- x. How do we create an environment where statisticians, ministries, producers of Earth Observations, healthcare staff, etc. coordinate their communication and streamline their information flows in a harmonised manner?

46. ESCWA offered to host the next Expert Forum for Producers and Users of Disaster-related Statistics in Beirut in 2022.

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