

Report on the work of the UNECE Task Force on measuring hazardous events and disasters

Angela Ferruzza (Istat, Chair of the Task Force)

Michael Nagy (United Nations Economic Commission for Europe)





- Main objectives of the Task Force:
 1. Support the statistical operationalisation of terms, definitions and classifications used in disaster risk management (e.g. statistical review of UNDRR/ISC Hazard Information Profiles)
 2. Development of a set of core statistics and indicators
 3. Draft implementation Guidelines
 4. Organisation of Global Expert Fora in collaboration with IAEG-DRS and other partners. Next EF: Addis Ababa, 28 October – 1 November 2024
- Current TF members:
 - National experts of Belgium, Italy (chair), Kazakhstan, Mexico, Netherlands, New Zealand, Türkiye and UK, as well as from University of Extremadura, ECLAC, ESCAP, IMF, OECD, UNDRR and WMO

Why do we need a set of “Core disaster-risk related Indicators”

Main benefits for countries by implementing these indicators:

- Strengthen evidence for disaster risk;
- Regular production and dissemination of disaster risk information by all national statistical systems;
- Inform about the state of disaster risk in an internationally comparable way;
- Support monitoring and reporting against international policy agreements (SDGs, Sendai framework, Paris agreement, etc.);
- Ensure consistency and coherence of information across administrative boundaries at the national and sub-national levels;
- Promote data exchange and harmonization, through interoperability and standardization;
- Add value to existing statistics to have regular statistics on disaster risk, support production of long-term data series;
- Complement other recommended indicator sets (e.g. CES core CC-related indicators).

Types of hazards (UNDRR/ISC hazard classification)

Current focus is on

- Main hazards driven by climate change
- Geohazards
- Environmental hazards
- Biological hazards
- Chemical and technological hazards

as far as monitoring systems are generally available

DRSF elements

- Frequency and dimension of hazardous events
- Disaster risk: Exposure, vulnerability, coping capacity
- Disaster-risk reduction activities
- Disaster impacts

Elements at risk

- People
- Housing
- Basic services
- Critical infrastructure
- Economic activity
- Ecosystems
- Food security and agriculture
- Water security
- Energy security
- Health care
- Cultural heritage
- Governance

Frequency and dimension of hazardous events (3)

- ☐ Proportion of hazardous events with deaths per year (per type of hazard)

Exposure (6)

- ☐ % of population living in hazard-prone areas
- ☐ % of farmland in hazard-prone areas

Vulnerability (6)

- ☐ % of population living below the national poverty line, by sex and age (SDG 1.1.1)
- ☐ % of world heritage sites without an emergency preparedness plan

Coping capacity (12)

- ☐ % of agricultural area under productive and sustainable agriculture (SDG 2.4.1)
- ☐ Health worker density (SDG 3.c.1)

Disaster-risk-reduction activities (6)

- ☐ Proportion of government expenditure on DRR in relation to GDP

Direct impacts (20)

- ☐ Number of disasters (per hazard type) declared by government per year
- ☐ Direct economic loss attributed to disasters in relation to GDP (SDG 1.5.2, SF C-1))

Indirect impacts
Research item

Purposes of the e-consultation:

1. Detailed feedback on pilot set of indicators for further refinement
2. Input for development of implementation guidelines:
 - Main challenges to be addressed in the Guidelines
 - Identification of national case studies that can serve as examples

Responses:

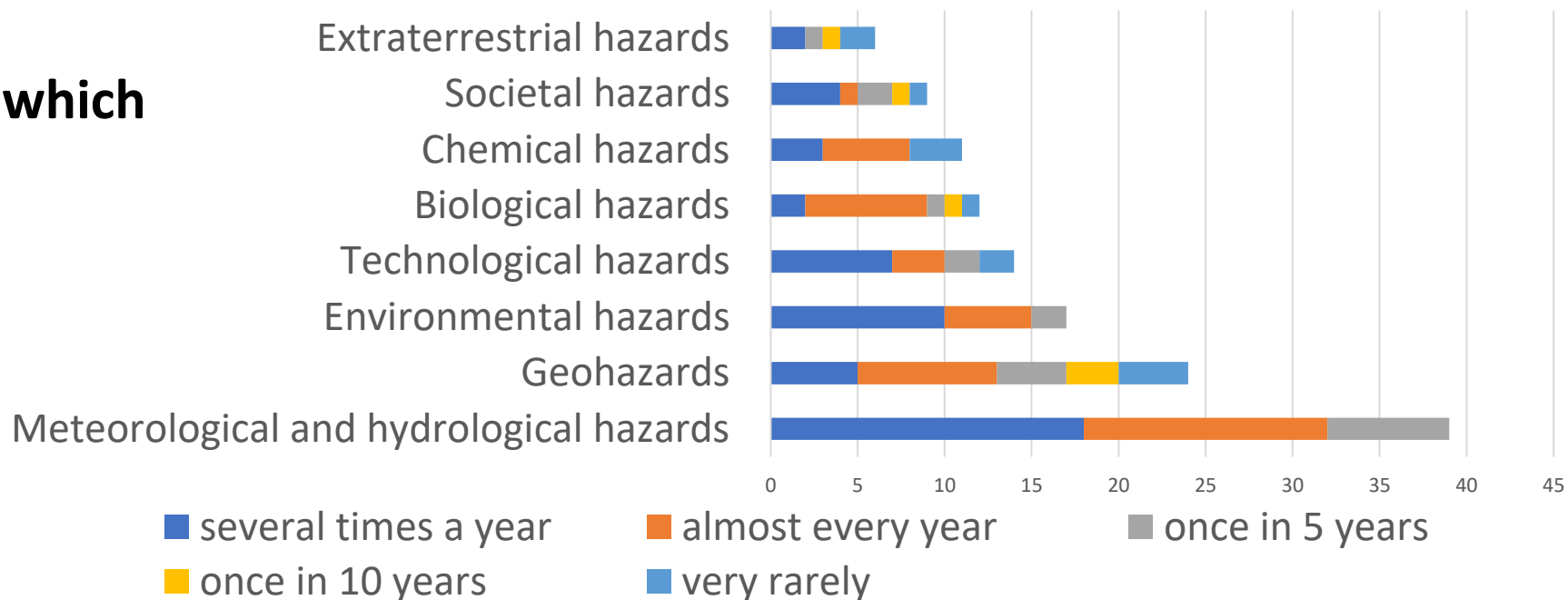
- **28 countries:** Armenia, Australia, Austria, Belarus, Brazil, Bulgaria, Chile, Dominican Republic, Ecuador, Finland, France, Hungary, Indonesia, Italy, Japan, Kazakhstan, Lithuania, Mexico, Netherlands, Poland, Portugal, Romania, Russian Federation, Slovakia, Sweden (empty), Ukraine, USA, Switzerland
- **UNSD**

Initial results of the e-consultation



Occurance of hazardous events in your country

Meteorological and hydrological hazards, which are related to climate change, occur most frequently.



Selected interesting comments and observations:

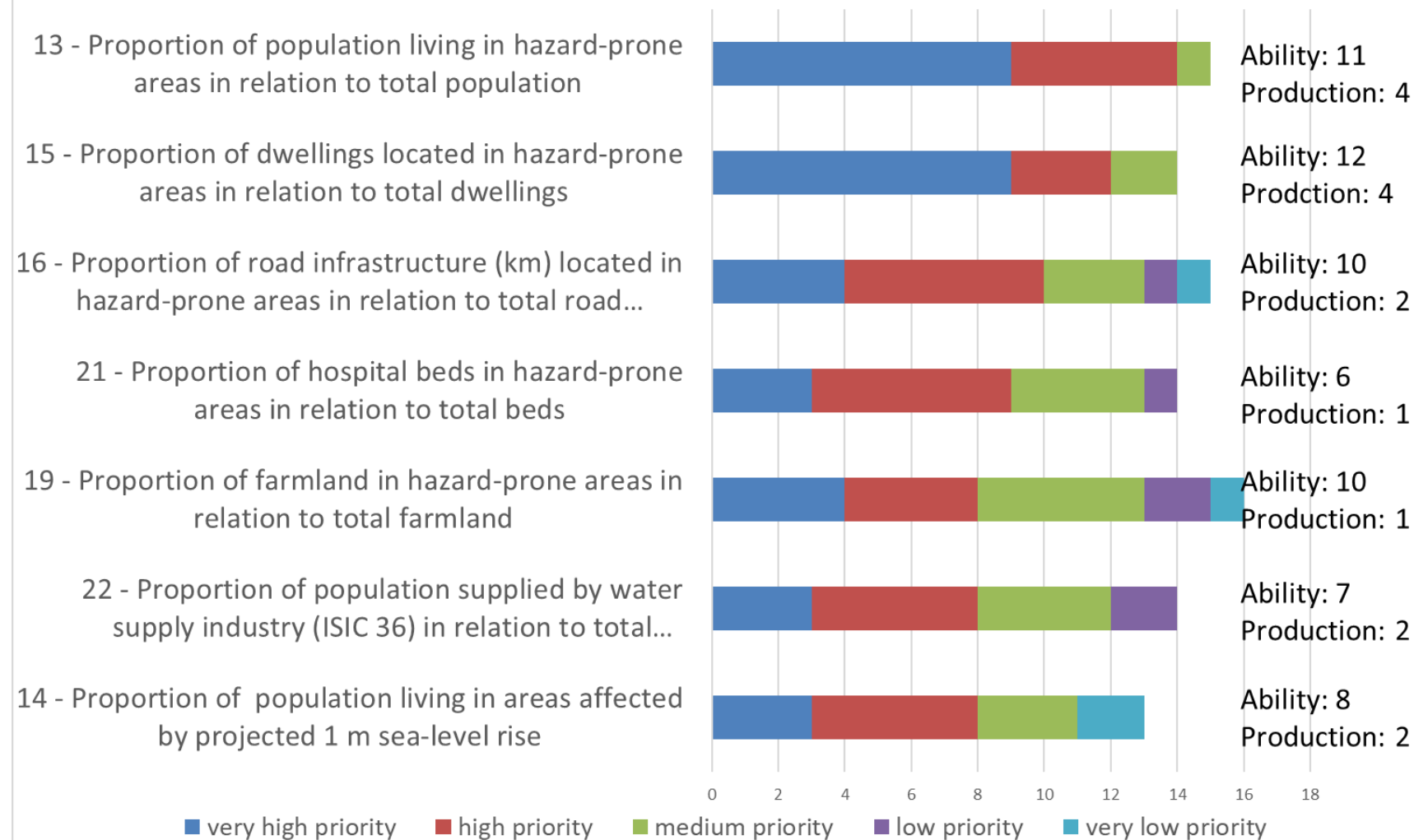
- Guidance on the scope of hazardous events to be measured is needed, e.g. whether traffic accidents are included**
- Comment on forest fires:** *In Portugal we classify this kind of risk as a mix risk. In our point of view it's the result of meteorological, environmental and societal factors.*

Initial results of the e-consultation



Production priority (information demand) does not always match indicator production.

Production priority: Exposure



For example, 14 countries believe that statistics about *Population living in hazard-prone areas* (indicator no. 13) is of very high or high priority.

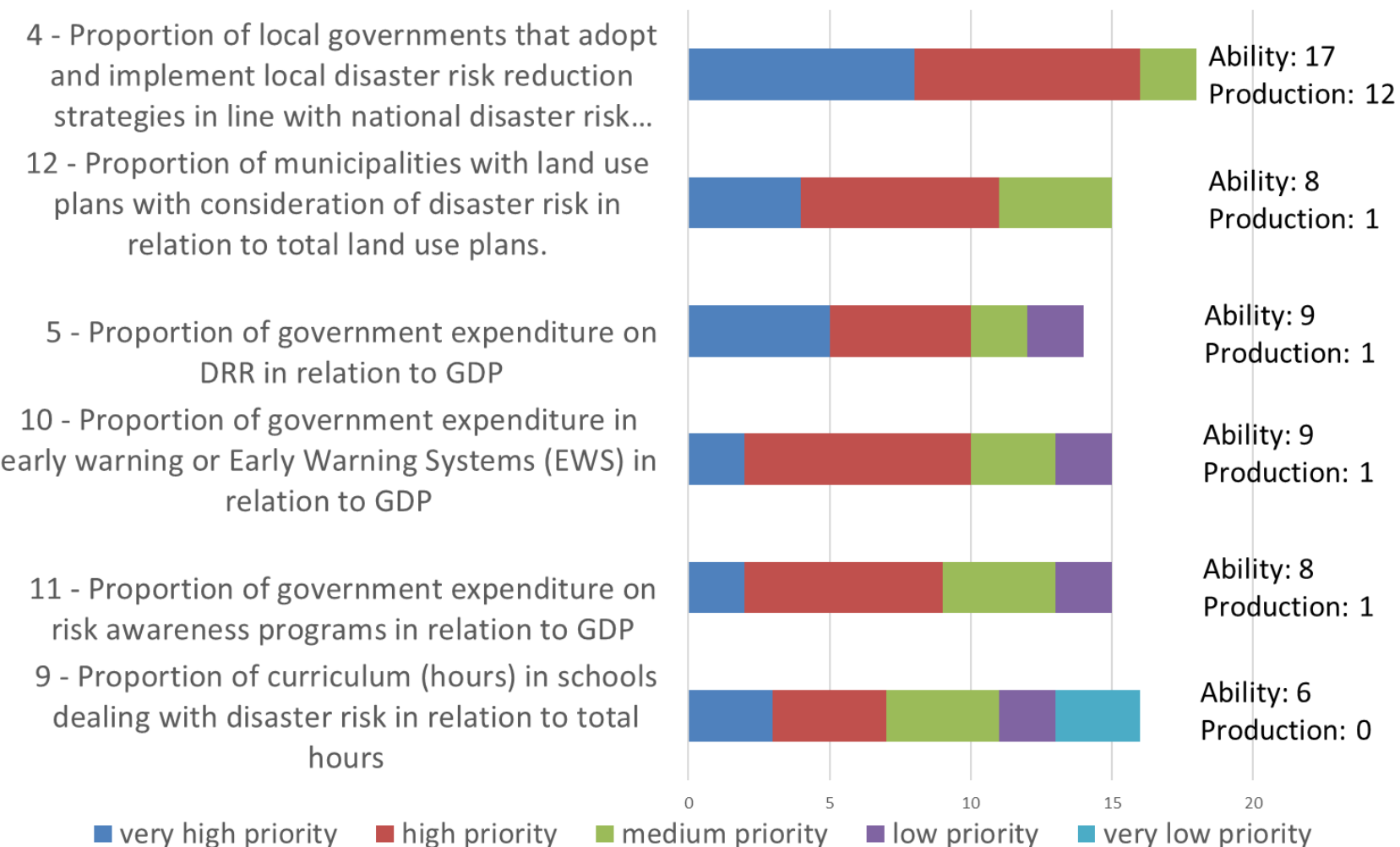
11 countries indicated that they are able to produce the indicator, of which 4 already produce it.

Initial results of the e-consultation



Production priority (information demand) does not always match indicator production.

Production priority: DRR activity



For example, 10 countries believe that statistics about *Government Expenditure on Disaster-Risk-Reduction* (indicator no. 5) is of very high or high priority.

9 countries indicated that they are able to produce the indicator, of which only 1 already produces it.



Which other indicators (other than the Pilot Core Indicators) do you consider as relevant from your point of view for DRM, and why?

Selected comments:

- *We think this indicator set gives a good overview about hazard situations. We would not supplement this with any other indicators.*
- *The vulnerability indicators are strongly oriented for developing countries; for our country others would be relevant (age structure in general, education levels or similar)*

Suggestions of indicators to be added:

- *Community preparedness levels*
- *Loss of livestock*
- *Livestock at risk*
- *Number of displaced people in temporary accommodation*
- *Business interruption duration*
- *Transport and supply chain disruption (monetary values)*

9 countries offered case studies (or sent links to existing examples)



Guidelines: first version in building considering case studies

Set of core indicators was endorsed by CES in June 2023 as a **Pilot Set**:

- ✓ Consultation of Pilot Set with Member Countries has been finished in June and there are first results; will be presented at the Global Expert Forum on Disaster-related Statistics end of October in Addis Abba.
- ✓ Set of Core Indicators will be refined – only minor changes expected; and publication planned later this year
- ✓ Identification of core statistics
- ✓ Countries will be invited to provide case studies
- ✓ Drafting of implementation guidelines continues, expected to be completed in 2025



Thank you very much for your attention!

If you still want to contribute to the work of the TF with feedback on the indicator list and/or national case examples, please contact m michael.nagy@un.org