

Statistical Offices Role in measuring extreme Events and Disasters

CES Task Force on Measuring extreme Events and Disasters

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Task Force on measuring extreme events and disasters (started 2015)

Conference of European Statisticians (CES) decided to launch this work based on the in-depth review.

Members:

Italy (Chair)

Armenia

Kazakhstan

Mexico

Moldova

New Zealand

Nigeria

South Africa

Turkey

Eurostat

Joint Research Centre of the European Union (JRC)

UN Office for Disaster Risk Reduction (UNISDR)

Economic and Social Commission for Asia and the Pacific (UN-ESCAP)

World Health Organization (WHO)

World Meteorological Organization (WMO)

Terms of Reference

http://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/bur/2015/February/05-ToR_TF_on_Measuring_Extreme_Events_and_Disasters.pdf

Objectives:

- Clarify the role of official statistics.
- Identify practical steps how NSOs can support disaster management and risk reduction.
- Identify main data needs and data sources. Take into account SDGs.
- Identify needs for harmonisation of classifications, terms and definitions
- Cooperate with the UN agencies and other international organisations working in this area.
- Draft recommendations

Important related process: OEIWG on Indicators and Terminology – which developed the indicators and the related terminology to measure progress in the achievement of the Sendai Framework Targets

Substantive chapters of the final document (Recommendations)

- **3 Scope and conceptual understanding of Extreme Events and Disaster-related Statistics**
 - 3.1 Defining extreme events and disasters, and other relevant terms
 - 3.2 Policy frameworks defining the needs for statistics on extreme events and disasters
- **4 Defining the role of National Statistical Offices**
 - 4.1 Main results of the survey to NSOs
 - 4.2 Roles of National Statistical Offices within the national institutional setting
 - 4.3 What kind of information is needed from NSOs for measuring extreme events and disasters
 - 4.4 Conclusions
- **5 Statistical tools for EED-related statistics**
 - 5.1 Surveys
 - 5.2 Registers
 - 5.3 Big data
 - 5.4 Geospatial information
- **6 Conclusions: recommendations to NSOs**
 - 6.1 Main benefits of strengthening the role of NSOs in measuring extreme events and disasters
 - 6.2 Major challenges and opportunities in developing statistics on extreme events and disasters
 - 6.3 What should be the NSO role within the national setting?
 - 6.4 Which official statistics should be produced with priority?
- **7 Proposed follow up work**
- **8 Glossary of important terms**

**STATISTICS RELATED TO EXTREME EVENTS AND DISASTERS (EED)
SURVEY FOR NATIONAL STATISTICAL OFFICES (APRIL 2016)**

39 countries replied to the survey:

Australia, Azerbaijan, Belarus, Bosnia and Herzegovina, Brazil, Canada, Chile, Colombia, Croatia, Czech Republic, Finland, France, Georgia, Hungary, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Malta, Mauritius, Mexico, Mongolia, New Zealand, Norway, Philippines, Poland, Portugal, Republic of Armenia, Republic of Moldova, Romania, Russian Federation, Serbia, Sweden, Switzerland, Turkey, UK, Ukraine.

The survey consisted of 5 parts:

Part A - General questions: institutions /agencies responsible for producing EED statistics ; role of NSOs

Part B - Occurrence of EED

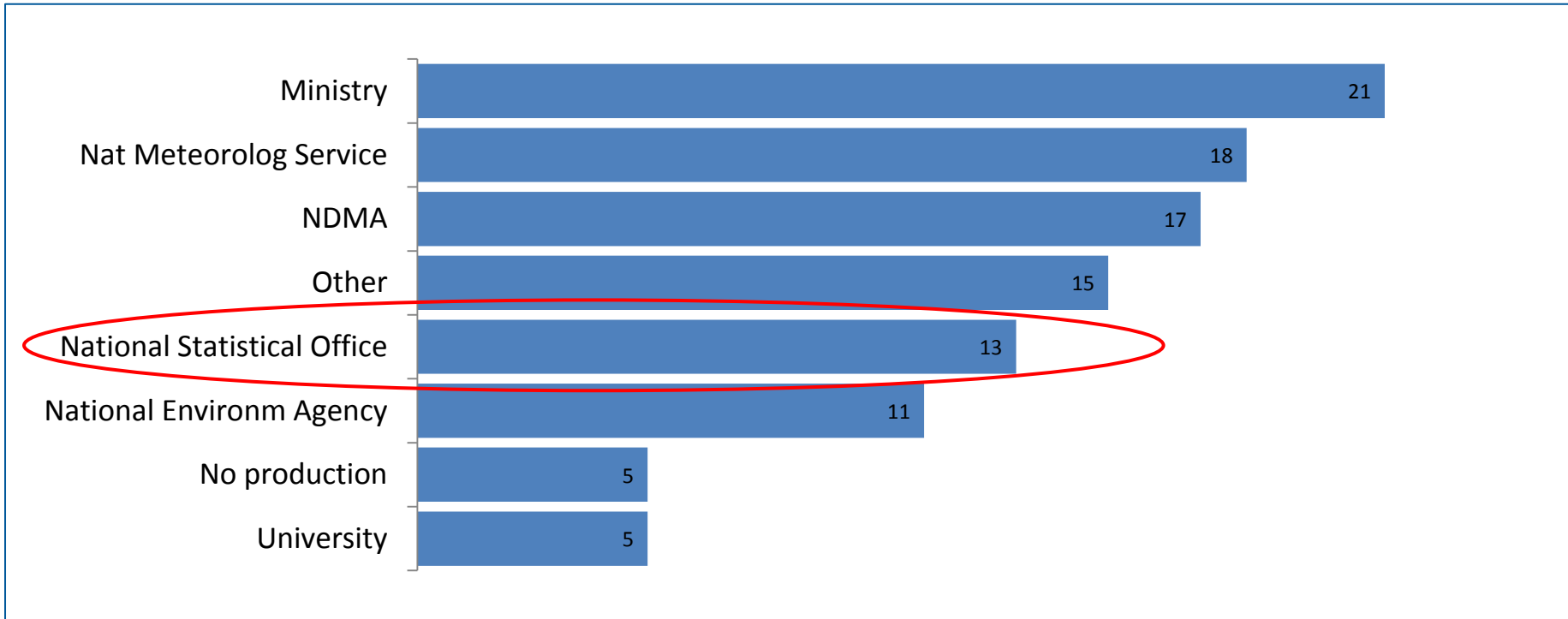
Part C - Impact indicators of EED

Part D - Geospatial information related to EED and confidentiality

Part E - Challenges, outlook

MAIN RESULTS from parts A, E

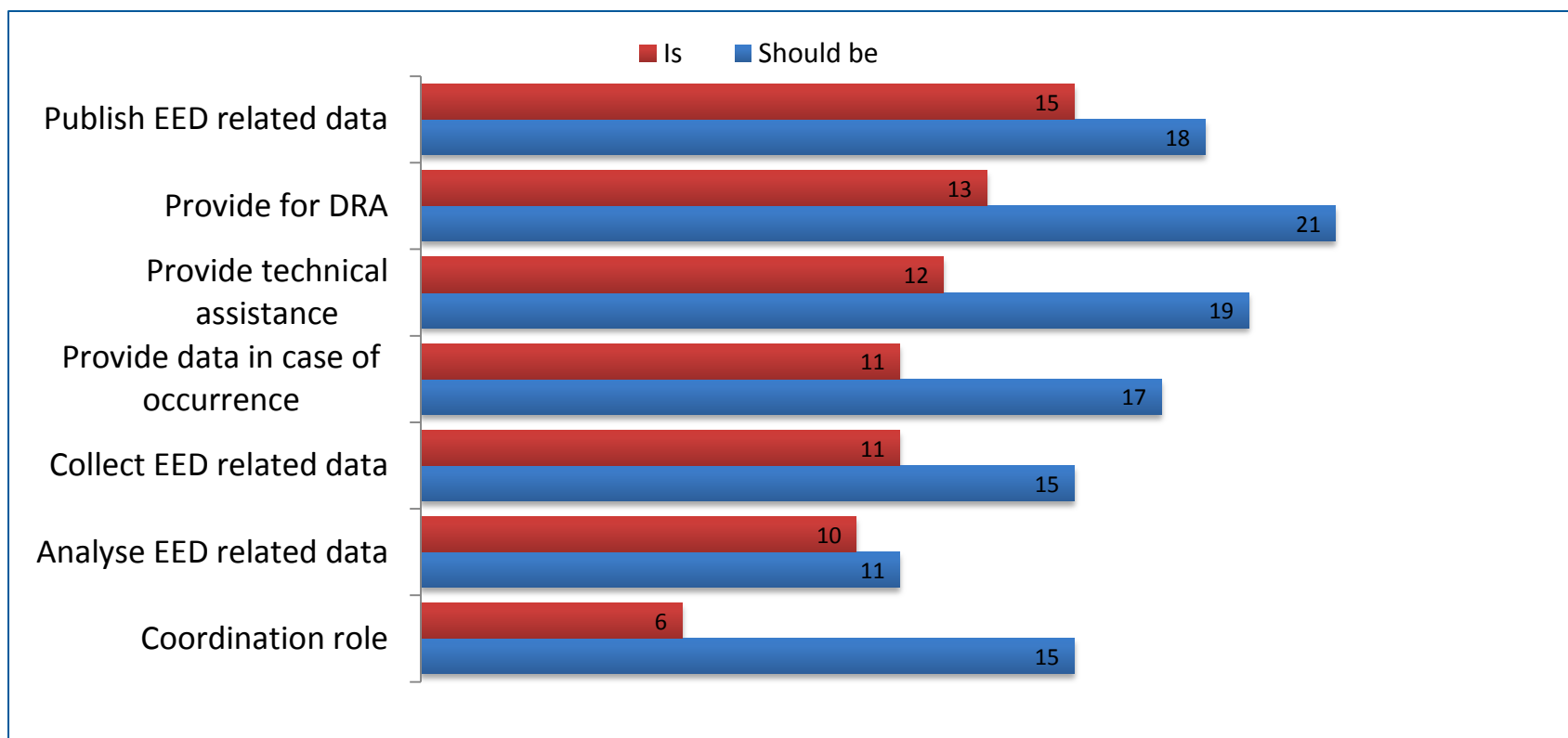
A1. Which institutions/agencies are responsible for producing EED-related statistics in your country?



Of the 31 countries (of 39) replying they have production of EED statistics:

N. of institutes producing EED:	1	2	3	4	5	6	7	TOTAL
Frequency	10	4	5	6	2	3	1	31

A3/4. What is/should be the role of the NSO in EED-related statistics in your country?



10 countries answer that their NSO doesn't have any role in their country

25 countries have almost a role, even if 'only' publishing EED-related data/statistics

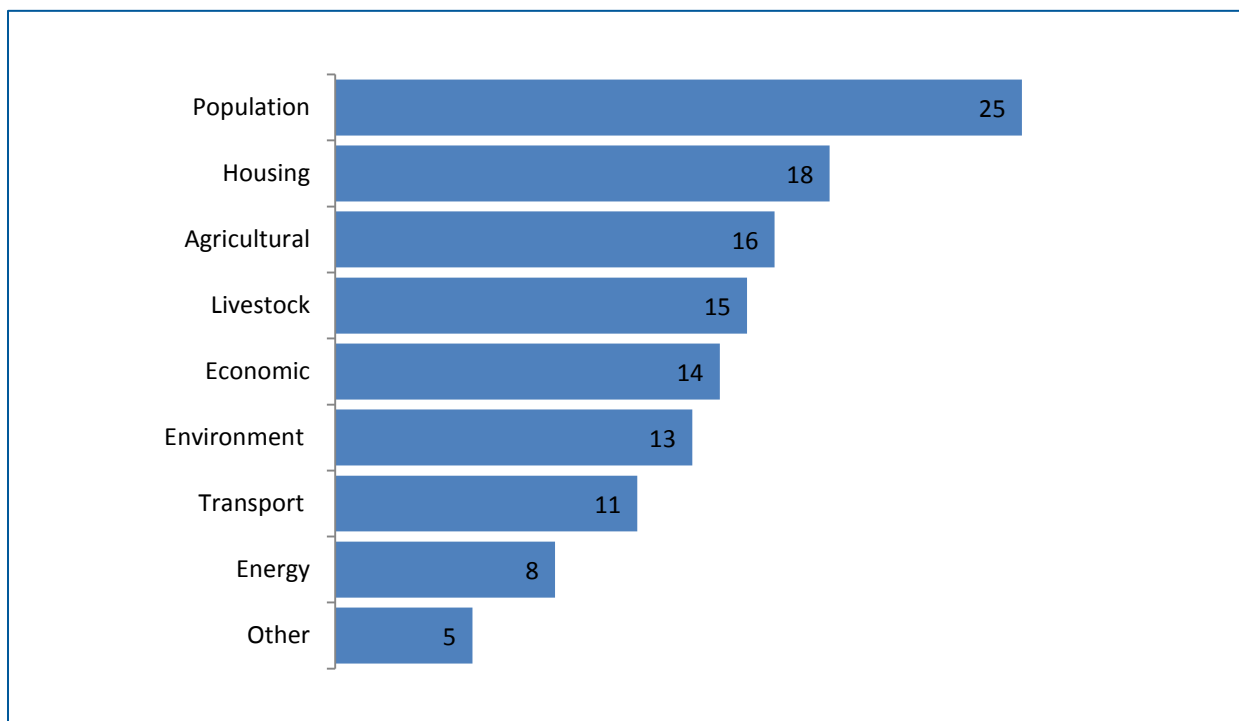
All roles should be more enhanced for NSOs

4 Non Responses at both questions.

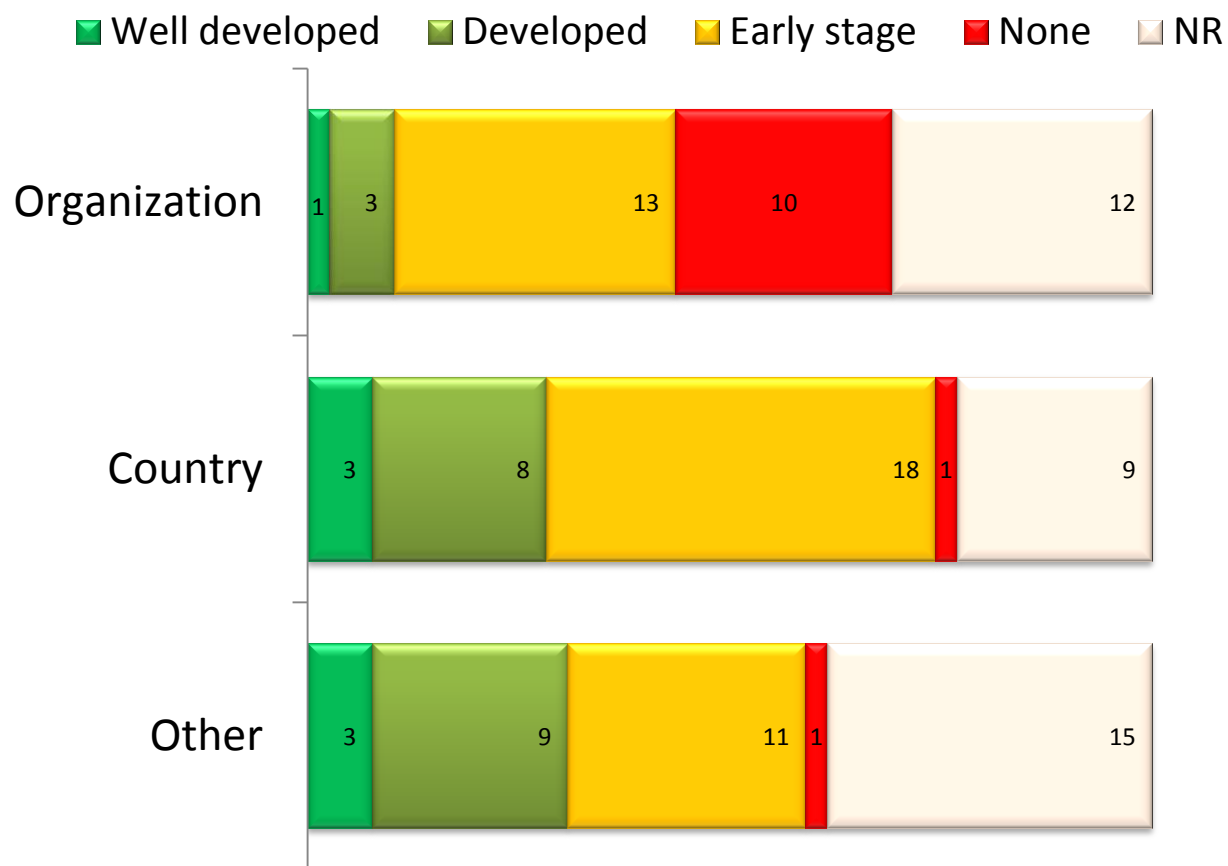
A5. Are you aware of your NSO data/statistics (economic, social, environmental) being used for activities related to EED?



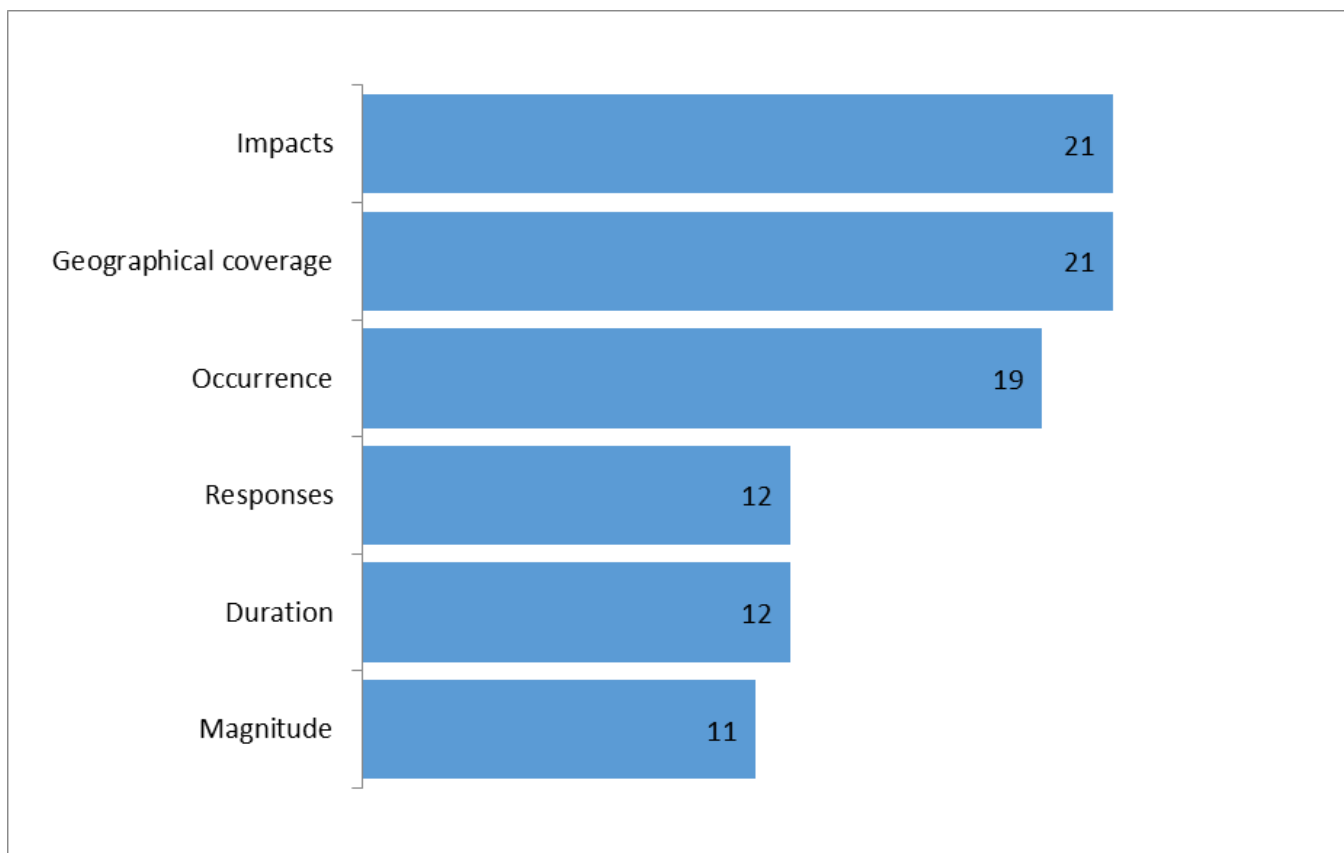
A6. If yes, which statistics are most often used for the activities related to EED?



A11. How would you define the current production of EED-related statistics in your country and in the NSO?

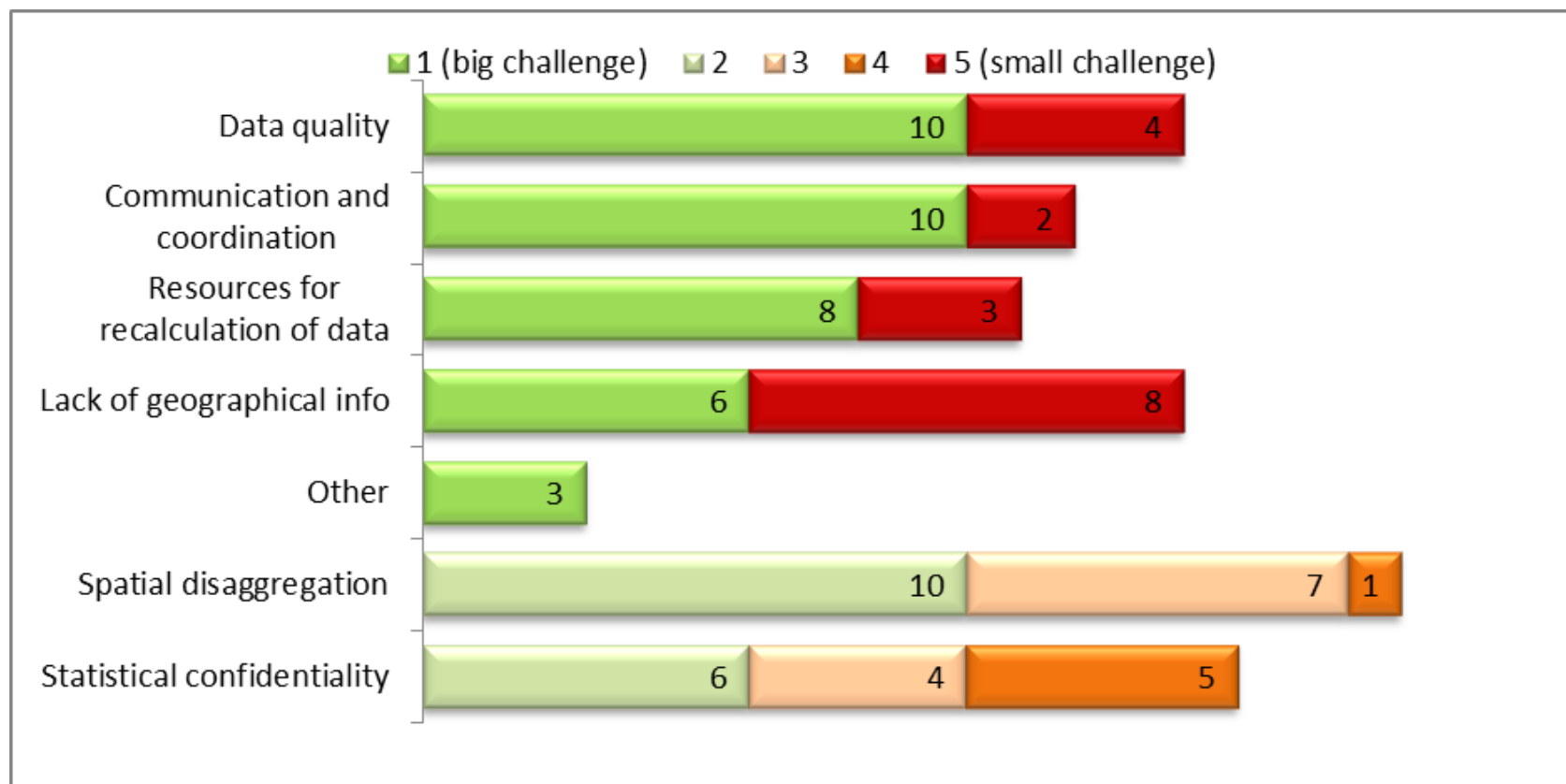


A12. In your view, which type of the EED-related statistics should NSOs produce and analyse?



8 countries believe NSOs should produce and analyse all type of EED related statistics

E8. What are the main challenges in providing the needed statistics and geospatial data quickly for emergency response purposes?



Conclusions

- In most countries NSOs are not responsible for EED-related statistics
- Most NSOs consider themselves as being at an early development stage or do not yet produce EED-related statistics.
- There is a wide range of national institutions producing these kind of statistics
- Most NSOs believe they should play a bigger role in producing EED-related statistics, including taking up the coordination role.
- In most countries official statistics are used for EED-related activities (population statistics, housing statistics, agriculture statistics, etc.) by other agencies
- Data needs for quick emergency response cannot always be served by NSOs, due to problems with spatial disaggregation, data quality and lack of communication and coordination.
- Statistical confidentiality is a constraint in sharing important data for EED policies and analysis
- Guidelines, recommendations, best practices, international standards etc. would be needed primarily for methodology, definitions and the integration of geospatial information.

Conclusions:

It is still a long way to improve EED-related statistics. Countries are at different stages on this road.

International Organisations play an important role:

- A **statistical framework** is needed, which allows official statistics to serve different policy frameworks in a coherent and consistent way, including SDG indicators, Sendai Framework indicators, Paris Agreement on Climate Change, etc.
- **International comparability** is essential – methodological standards, classifications, recommendations and guidance are needed
- Providing **platforms for sharing experiences and good practices**

Extended mandate of the Task Force

- Until 2019
- To take into consideration most recent developments related to
 - SDGs
 - Sendai Framework on Disaster-Risk Reduction
 - Paris Agreement
- Contribute to
 - a) Development of a framework for disaster-related statistics (UN-ESCAP);
 - b) Development of methodologies for Sendai Framework Indicators (UNISDR), and
 - c) Drafting of guidance documents on national monitoring and data exchange frameworks (UNISDR).

Current activities

- **8 case studies initiated jointly with UNESCAP, UNISDR and Group on Earth Observations (GEO):**
 - Armenia
 - Italy
 - Jamaica
 - Mexico
 - New Zealand
 - South Africa
 - Turkey
 - United Arab Emirates
- **Purpose of case studies:** highlighting how National Statistical Offices (NSOs) and the National Statistical Systems are involved in different phases of disaster-risk management (prevention, mitigation, preparedness, response and recovery). Case studies are contributing to
 - a) Development of guidelines for reporting on the global goals and targets of the Sendai Framework, and the 2030 Agenda;
 - b) Identification the role of NSOs in measuring extreme events and disasters;
 - c) Development of a statistical framework for disaster-related statistics;
 - d) Development of recommendations on the use of big data in disaster-risk management;
 - e) Identification of proper statistical tools for measuring extreme events and disasters.
- **Meeting of the Task Force on 6 October 2017 in Rome**

Thank you very much for your attention!