Update from the Sendai High Level Meeting
(Data Session)
17-19 May 2023

Measuring Hazardous Events and Disasters: Task Force D
Disaster Related Statistics Pilot Project

Presentation to the 3rd Expert Forum for Producers and Users of Disaster-related Statistics
Session 3 “Classifying and harmonizing hazards and disasters” (hybrid session)

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5th June 2023; 21:00-21:55; Bangkok, Thailand
Main findings and recommendations of the midterm review of the implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030

UNGA; 31st Jan 2023

https://www.undrr.org/publication/main-findings-and-recommendations-midterm-review-implementation-sendai-framework

“Member States to enhance official statistics on disaster risk, including through standardizing risk taxonomies, risk data generation, risk assessment methodologies (including nature loss) and developing tools to assess systems change and impact on disaster risk and resilience. Collaboration between statisticians and disaster risk reduction practitioners will improve and sustain quality in disaster risk-related data collection and analysis. Engaging national statistical offices to integrate Sendai Framework monitor data into national statistics promotes reporting and use of disaster risk-related data by all sectors, thereby promoting risk-informed decision-making among “all State institutions”.”
“Strengthening the collection and analysis of data on hazards, disaster events and their impacts, including losses and damages, and the monitoring of systemic risk, cascading effects, compounding hazards and multiple risk drivers through enhancing investment in human and institutional capacity development, research, digital technological development and innovation, emerging technologies” (Paragraph 20a)

https://digitallibrary.un.org/record/4011748
Risk Reduction Hub (17th May 2023): Next generation disaster risk analytics: Strengthening the DRR Data Ecosystem to meet tomorrow’s global challenges:

Key Messages

Challenges of having common definitions and data standards to measure progress in resilience, including reducing loss and damage.

Highlighted the ongoing work by UNDRR, UNDP and WMO on a new Loss And Damage tracking system that will use the UNDRR-ISC Hazard Information Profiles as hazard standards.

Loss and damage data and Early Warning for All initiatives are key opportunities to enhance and strengthen data governance.
Key Questions for Today

1. Why is standardisation and classification important?
2. What challenges are faced in attempting to standardise disaster-related statistics?
3. What solutions can we implement?
1. Why is standardisation and classification important?
In the last six years, guidance has been published in order to aid the collection of harmonised hazard and disaster statistics under Sendai.

Indicators that countries can use to measure progress against Sendai Targets have also been proposed.
“There is a growing sense of urgency to integrate disaster measurements with statistics, and the need for better data and statistical measurement to improve the understanding of disaster risk reduction, including strengthening resilience and preparedness.”
Figure 1: UNDRR/ISC hazard information profiles according to eight hazard types

Note: CBRNE = chemical, biological, radiological, nuclear and high-yield explosives
Source: Reproduced from Fahad S Malik and Anna Schwappach, UK Health Security Agency
How are the HIPs being used so far?

<table>
<thead>
<tr>
<th>Translated into different languages</th>
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<tbody>
<tr>
<td>Adoption into national systems</td>
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<td>UN Women Gender-Environment Surveys (e.g.: <strong>Tonga</strong>)</td>
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<td>WMO-Cataloguing of Hazardous Events</td>
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<td>UNDRR/WMO/UNDP Losses and Damages database</td>
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<td>Disaster Related Statistics Pilot</td>
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The UNDRR/ISC Hazard Definition and Classification Supplement now provides a common set of hazard definitions for monitoring and reviewing implementation of the Sendai Framework, Sustainable Development Goals of Agenda 2030 and the Paris Agreement on Climate Change.

Recommended to governments and their NSOs to use the reviewed classification for monitoring and reporting in DRR, and to gradually implement it in databases and reporting systems.
Primary Objectives

Provide expert feedback from a statistical perspective on the applicability of hazard classification and definitions (HIPs).

Identify any possible gaps and shortcomings.

Produce a set of recommendations to respond to challenges identified.
What we have achieved so far

- Task force scoping workshop: 15 participants across 2 sessions
- Scoping survey: 64 responses across 47 countries
- Literature Review (109 items identified)
- Wider Expert consultation
- Database consultation
- Focus Groups: 7 participants across 4 sessions
- Final Online Survey: ongoing
- Focus group discussions with representatives from 3 databases
- Country-Based Expert consultation
- Focus group discussions with Canada, Mexico and Georgia
Voluntary Pilot Testing by Countries

**OBJECTIVE:** to receive feedback from experts who already operate statistical databases on hazards and disasters or are planning to develop such databases.

Partnered with Canada, Georgia and Mexico

Hazards of focus have included:

<table>
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<tr>
<th>Earthquake</th>
<th>Extreme Cold</th>
<th>Flooding</th>
<th>Tropical Cyclone</th>
<th>Hail</th>
<th>Wildfires</th>
<th>Landslides</th>
<th>Flash Floods</th>
<th>Tsunami</th>
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</table>
2. What challenges are faced in attempting to standardise disaster related statistics?
There is limited capacity to collect data at local levels. Local data is not always shared with national stakeholders.

There are significant data gaps around smaller events and slow onset events.

National statistics offices (NSOs) collate disaster data but are not always involved in primary data collection.

There are sometimes fragmented multi-sector systems with unclear responsibilities around data collection.

Data collection and analysis is not standardised across countries.

Challenge exist around defining and classifying hazards and hazardous impacts (cultural and language differences, varying prioritisation based on regional / national need).

Databases and classification systems should better capture indirect, cascading and synergistic hazards, and define temporal and spatial boundaries for events.

Operational challenges exist that impact reporting (political influence, funding, time-lag in reporting).

There is value in a universal classification system and there was positive feedback on the use of the HIPs to differentiate hazards.

Challenges were identified around the use of the HIPs (technical complexity, challenges in retrofitting HIPs to existing datasets).

Countries would value flexible international definitions and indicators but emphasize the importance of contextualisation.
3. What solutions can we implement?
Emerging Recommendations

Based on findings from this project, the project team has identified key themes for potential recommendations to improve global hazard impact monitoring and reporting as listed below. Please note this is not a definitive or final list.

- Communication and effectiveness of existing technical guidance
- Support for managing partnership approaches to measuring hazard impacts
- International impact indicators, which could be modified by countries to reflect contextual considerations.
- Measuring the impact of smaller and slow onset events
- Reinforcing community-led hazard impact monitoring
- Research on hazard impact measurement at the sub-national level

We welcome your input on this selection and any suggestions regarding the development of our recommendations.
Next Steps

Recommendations Survey ➔ Analysis of findings ➔ Undertake workshop at 3rd DRS-EF

Complete write up of extended report ➔ Finalise summary report for publication (Autumn 2023)
With thanks to...

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The project team: Maddie Weir, Fahad Malik, Meghan Cook Fatai Ogunlayi, Hannah Watson and Jack Mayer

Country partners in Canada, Mexico and Georgia

All survey respondents

All expert stakeholders
Thank You