Technical Expert Forum 2022

Tracking of hazardous events and disaster losses and damages

29-30 November 2022, Bonn
30 years of global disaster and climate governance

Pre-1970s: AD-HOC DISASTER RESPONSE
1970s-1990s: HUMANITARIAN ARCHITECTURE
PREPAREDNESS-CENTRIC DRR
RISK-INFORMED SUSTAINABLE DEVELOPMENT

1989
International Decade for Natural Disaster Reduction (IDNDR)

1992
United Nations Framework Convention on Climate Change

1994
International Strategy for Disaster Reduction (ISDR)

1999

2000
Yokohama Strategy and Plan of Action

2005
Sendai Framework for Disaster Risk Reduction 2015-2030

2015
Resilience as a common denominator
Growing data needs

SDGs

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Why tracking losses and damages?

- National Governments
- Local Governments
- Development Partners
- Humanitarian Actors
- Financing sector
- Insurance sector
- S&T networks
- UN System

Evidence of impact of climate change

Benchmarking success (or failure) of resilience building

Better understanding of disaster impact on sustainable development

Nationally-owned

Contextualized

Localized data

Disaggregated

Interoperable

Informed post-disaster needs assessments

Informed early warning systems, rapid response and recovery

Better financing and insurance products

Building, informing, and calibrating risk models

Contextualized

Localized data

Disaggregated

Interoperable
Frequency of floods in Ethiopia

Houses damaged or destroyed due to landslides in Colombia

Disaster-related mortality in Cambodia

Frequency of earthquakes in Iran (IR)

110 countries with L&D databases

Event table in Lebanon

Population affected by disasters (by types) in Albania
Sendai Framework for Disaster Risk Reduction 2015 - 2030

REDUCE

BY 2030

Target A: Global disaster mortality *aiming to lower average per 100,000
Target B: Affected people globally *aiming to lower the average global figure per 100,000
Target C: Direct disaster economic loss *in relation to global gross domestic product (GDP)
Target D: Disaster damage to critical infrastructure & disruption of basic services

INCREASE

BY 2020

Target E: Countries with national and local DRR strategies
Target F: International cooperation to developing countries
Target G: Multi-hazard early warning systems & disaster risk information
Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction

Note by the Secretary-General

The Secretary-General has the honour to transmit herewith the report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction established by the General Assembly in its resolution 68/284 for the development of a set of possible indicators to measure global progress in the implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030, coherent with the work of the Inter-Agency and Expert Group on Sustainable Development Goals Indicators and Member States of the United Nations.

Statistical Commission

Report on the fiftieth session
(5–8 March 2019)

Economic and Social Council
Official Records, 2019
Supplement No. 4
Challenges & Gaps

- Disaster data on losses and damages have changed significantly over time
  - Single hazard → Multi-hazard
  - Reactive single event response → Proactive multi-risk management

- Current data challenges not technical but rather of limited institutionalisation and capacities

- Need for National and International accepted standards, practices, and capacity development:
  - Consistent terminology across national agencies and internationally
  - Systematic recording of hazardous events (hazards and impacts) through the entire hazard lifecycle
  - Consistent Impact recording processes,
  - Scientifically based attribution of impacts to causal hazards
  - Interoperable storage of data and information
  - Availability of data, analyses, products, and services to decision-makers and other stakeholders (public and internationally)
Typhoon Haiyan / Yolanda 2013

Characteristics
- Max wind: 230 km/h
- Costal surges: up to 5 meters

Reported losses and damages
- More than 6352 deaths with 1071 missing
- 14 millions people affected
- 850 million USD damage

How are losses and damages attributed to each causal hazard in a systematic and authoritative way? (Wind, storm surge, rain, flooding, disease outbreak, loss of power... etc)?

How do we ensure losses and damages is recorded for the lifespan of the hazard (e.g., impacts from all countries Philippines, Vietnam, SIDS).
Technical assistance to countries on tracking of losses and damages

Joint UNDP-UNDRR report

An in-depth analysis of national disaster databases, to support the new generation of disaster data and information systems in line with the level of digital maturity in countries.
Key Takeaways

- Government leadership: Disaster data systems (DDS) with formal attachments to governments more likely to operate smoothly and effectively.

- Context specific: DDS need to consider the country context and be tailored to national and local requirements.

- Capacity and skills: Continuous enhancement of capacity and skills in data and digital management.

- Decentralisation: Disaster data collection and management at sub-national and decentralized levels is critical for sustainability of DDS and to support national agencies.

- Global standards with country adaptation: While aiming to develop internationally comparable systems, the system should be flexibly adaptable based on countries’ data and digital maturity.

- The digital ecosystem: DDS need to be embedded in larger digital ecosystem beyond data and technology, to include people, procedures, governance, financial resources.

- Learning and sharing: Mutual learning and sharing platforms to facilitate knowledge-sharing across countries.
Recommendations

**Cluster 1**  
(Maturity Score: 0-33 %)

- Understand context-specific challenges through stakeholder engagement
- Focus on critical priority issues (e.g. developing tools)
- Prioritize data sharing and access
- Develop a competent cadre of human resources to manage the system
- Establish communities of practice and strengthen policy and regulatory basis.

**Cluster 2**  
(Maturity Score: 34-66 %)

Cluster 1 recommendations apply, additional focus areas:

- Data specification, standards, processing and modelling
- Training of trainers on data collection and management
- Policy incentives and institutionalisation
- Standard Operating Procedures and legislation

**Cluster 3**  
(Maturity Score: 67-100 %)

- Keep pace with technology and state-of-the-art practices
- Focus on innovation, optimization and harmonization

- Embrace holistic view of digital ecosystem transformation to underly the vision, mission, and implementation roadmap for next generation of DDS
- Adopt a value chain model for digital transformation as the way forward to develop the DDS
- Develop product editions that speak to different contexts and stakeholders at various maturity levels
- Develop awareness campaigns for governments on the value of DDS to explain the ROI and provide cost-benefit analysis with case studies and success stories
Objectives of the Technical Forum

- **Enhance national capabilities to analyze impacts of events (losses and damages):**
  - By strengthening linkages with the causative factors (hazards and hazardous events)
  - By understanding the cascading impact of events
  - By brainstorming on challenges and good practices in registry of events at national and local levels

- **Expected outcomes:**
  - Enhanced understanding and tracking of losses and damages (the event is part of the Work Plan of the Executive Committee of the Warsaw International Mechanism for Loss and damage)
  - Strengthened and well-informed early warning systems, disaster needs assessments, Build-Back-Better, and risk-informed development
  - Better monitoring of progress in resilience building and its thresholds at all levels
Thank you