Country coordination for Disaster – related statistics

14th TWG meeting will hold the 3rd workshop on “Coordinating the DRSF Business Process.

24th November 2021
Addressing disaster-related data governance

1. Disaster risks - Component 1 of the DRRSS

Governance structure for risk assessment and analysis

1. Lead agency
2. Multi-stakeholder coordination body (e.g. National DRR platform)
3. Technical committee

Governance mechanism is defined based on the high-level objective of risk assessment process and analysis system. A system of institutions, operational modalities, policies and a legal framework to guide, manage, coordinate and oversee implementation is required.

What are the analytical uses? – essential for scoping the input data and analytical outputs expected
Good practices – coordination for disaster risk analysis

1. **Standards** – Pakistan policy guidelines to conduct multi hazard vulnerability and risk assessments (MHVRA)

2. **SoP for local risk assessment** – (under development – Fiji)

3. **Information platform – geospatial database initiative** in conjunction with a disaster risk management capacity development. – Nepal BIPAD (Building Information Platform Against Disaster)/Implementation of their national DRR strategy and decentralization of DRRM governance

   - Mapping data sources for different modules
   - Identifying use cases
Addressing disaster-related data governance at country level

2. Disaster impacts - Component 2 of the DRRSS

Institutionalization of disaster loss accounting systems

- Agreed terminologies, hazard classification, minimum variables on impact and event description to be recorded, disaggregation level, metadata.

  E.g. Adopting national data glossaries, hazard and disaster classification – UNDRR/ISC

- Developing standards forms and tools, handbooks for data collection
- SoPs for data collection from sectors/administrative levels, compilation, aggregation, visualization and analysis

Identifying baseline information and standard methodologies for loss estimation (e.g. agriculture damage and loss methodology, iPDNA (ITC enabled)

Figure 2. FAO’s methodology for assessing damage and loss in forestry

- The value of all mature timber stands that had reached their specified rotation ages when disaster occurred
- The present value of all timber stands that had not reached their specified rotation ages when disaster occurred
- The present value of future non-timber forest products (e.g. income from recreation, fuelwood, fruit collection)
- The present value of timber salvaged and marketed after the disaster

- Production damage: value of inputs and outputs destroyed
- Production loss: reduction in income flows/lost production (minus value of production saved/sold after disaster)
- Asset damage: destroyed machinery/equipment/tools
Addressing disaster-related data governance at country level

2. Disaster impacts - Component 2 of the DRRSS (continued)

Institutionalization of disaster loss accounting systems

- Agreed terminologies, hazard classification, minimum variables on impact and event description to be recorded, disaggregation level, metadata. E.g. Adopting national data glossaries, hazard classification

- Unique ID to link effect/impact information to event characteristics (e.g. HydroMet catalogues)

- Identify analytical functions (trends, seasonal patterns, hotspots, etc.)

Hazard Information Profiles - Supplement to UNDRR ISC Hazard Definition & Classification Review - September 2021

Hazard Information Profiles

Meteorological and Hydrological
   Extraterrestrial
   Geohazards
   Environmental
   Chemical
   Biological
   Technological
   Societal

Hazard Information Profiles

Source: FAO

Dust storm or Sandstorm

Definition
A dust storm is an ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind (WMO, 2017).

Reference

Annotations

Synonyms
Not available

Additional scientific description
Dust storms or sandstorms generally occur in areas where the ground is covered with loose dust or sand. Sometimes, after having travelled great distances, they may be observed over areas where no dust or sand covers the ground. The forward portion of a dust storm or sandstorm may have the appearance of a wide and high wall that advances fairly rapidly. Walls of dust or sand often accompany a cumulonimbus that may be hidden by the dust or sand particles. They may also occur without any clouds along the forward edge of an advancing cold air mass (WMO, 2017).

Metrical and numeric limits
Emissions of sand and dust particles in the air typically have a wind threshold value ranging from about 5 m/s in desert areas to close to 10 m/s in semi-arid regions. As a first approximation, and being fully aware that visibility in sandstorms and dust storms may be influenced by the optical characteristics of the aerosol (chemical composition, particle size spectra) and lighting conditions (solar angle, atmospheric extinction, presence of medium or high cloud), the following thresholds, which are familiar to human observers and automated systems alike, are recommended (ICAO, 2005):

- VIS < 5000 m: visibility and gusts of <=50 kt: 'light' sandstorm or dust storm
- VIS < 1500 m: visibility and gusts of <=50 kt: 'moderate' sandstorm or dust storm
- VIS < 500 m and gusts of <=40 kt: 'heavy' sandstorm or dust storm

Key relevant UN Convention/multilateral treaty

Source: FAO
Addressing disaster-related data governance at country level

2. Disaster impacts - Component 2 of the DRRSS (continued)

- Data readiness analysis / against some indicators
- Maturity analysis
- Information and data governance analysis

Selection: Disaster Loss Data – Needs

<table>
<thead>
<tr>
<th>IDG</th>
<th>Needs – What we learned</th>
<th>How to address</th>
</tr>
</thead>
<tbody>
<tr>
<td>People</td>
<td>Dedicated and skilled capacity for disaster data and information.</td>
<td>Check and collaborate with Statistics, Planning, M&amp;E, Records Management, Library, Archive, IT, ... Make the case! See Skills Framework for the Information Age (SFIA)</td>
</tr>
<tr>
<td>Governance</td>
<td>Linking loss data to development and political priorities to create incentives and support.</td>
<td>Collaborate and research to bring disaster data together across government. Identify and agree on priorities – and benefits. Map development plans to demonstrate synergies – local to national to global – action and reporting. Explore standards – government regulations etc.</td>
</tr>
<tr>
<td>Process</td>
<td>Using loss data is tricky. Diverse &amp; priority stakeholders, users, producers (+/−30 agencies)</td>
<td>Needs: Who, what, why, how, when and where. Plan: Use cases and scenarios with stakeholders – users and producers of data, information and knowledge. Map: End to end processes with inputs, outputs, roles etc. Test &amp; trial, monitor &amp; evaluate, learn &amp; improve, repeat ...</td>
</tr>
<tr>
<td>Technology</td>
<td>User centred / user friendly ... Automation, machine learning, AI, ...</td>
<td>Get the right capacities in place to establish prerequisites and processes. Everything / Anything as a service (XaaS)</td>
</tr>
</tbody>
</table>

Source: Jutta May, consultant to UNDRR Disaster loss discovery need analysis
Good practices on disaster loss data coordination at country level

- **NDIMS India – capacity development and roles distribution along with database creation.** Unique event ID, protocols and responsibilities among the different levels (states, districts, central/national) and sectors, identifying relevant categories of assets by sector, units of measurement, capacity development. Incentives for data reporting – assessment report completeness triggers disbursement of some relief and rehabilitation funds.

- **Bangladesh / assessment of capacities for Sendai Framework Monitoring reporting, Bangladesh IMWG/HCTT and BBS**

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**TABLE 1:**

<table>
<thead>
<tr>
<th>Contributor for the Field of Indicator</th>
<th>Name of the Organization</th>
<th>Area of Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the Organisation formally established for carrying out the activity? (Yes/No)</td>
<td>Do the Organisation collect the data for disaster risk management purposes? (Yes/No)</td>
<td>Is there a specific desk or unit to deal with disaster issues? (Yes/No)</td>
</tr>
<tr>
<td><strong>B1:</strong> Number of directly affected people attributed to disasters, per 100,000 population</td>
<td>Department of Disaster Management (DDM)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Fire Service and Civil Defence (FSCD)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Bangladesh Bureau of Statistics (BBS)</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>B2:</strong> Number of injured or ill people attributed to disasters, per 100,000 population</td>
<td>Department of Disaster Management (DDM)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Fire Service and Civil Defence (FSCD)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Bangladesh Bureau of Statistics (BBS)</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>B3:</strong> Number of people whose damaged dwellings were attributed to disasters</td>
<td>Department of Disaster Management (DDM)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Bangladesh Bureau of Statistics (BBS)</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>B4:</strong> Number of people whose destroyed dwellings were attributed to disasters</td>
<td>Department of Disaster Management (DDM)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Bangladesh Bureau of Statistics (BBS)</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>B5:</strong> Number of people whose livelihoods were disrupted or destroyed, attributed to disasters</td>
<td>Bangladesh Bureau of Statistics (BBS)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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**Functional Structure of SFD RR Implementation in Bangladesh**

1.1 OUTLINE OF THE STRUCTURE FOR SFD RR IMPLEMENTATION IN BANGLADESH

- **Steering Committee for SFRR Implementation**
- **National Level Technical Committee for SFD RR Implementation**
- **Coordinators**
  - Secretary, Ministry of Disaster Management and Relief (DDAs-Desk Officer)
  - A number of Department and Ministries
  - BBS Can be Validator but will be a lengthy process
- **Contributors**
- ** Validators**
- **Observers**

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**Source:** UNDP Bangladesh
Good practices on disaster loss data coordination at country level

- Bangladesh / Information Management Working Group - HCTT and BBS

Anticipated value
- The IMWG will complement the Bangladesh Bureau of Statistics in collecting, compiling, analyzing data, especially on demographics in the context of disasters, and disseminating disaster-related data and information to those that need it—for timely, informed and evidence-based humanitarian action.
- Facilitate national and sub-national level information coordination and inform forecasting, disaster preparedness, crisis response and resilience.
- Support field data collection, data analysis, mapping, visualization and facilitating learning through capacity building

Strategic linkages

Outputs to date
Data/Datasets Inventory: The IMWG initiated an activity to prepare a dataset inventory—a list of the available datasets as reported by IMWG/Clusters/TWGs.

The Survey of Surveys / Assessments Registry: The IMWG initiated an exercise to establish and document the metadata and pointers to the known surveys/assessments that have been conducted in Bangladesh.
Key messages on coordination and governance for Disaster related statistics

1. Institutionalization requires clear roles and mandates from legal and policy frameworks to be further details through directives, SoP and technical guidance.
2. Mapping of data producers, custodian organizations and their capacities to manage data is a very important steps.
3. Visualization data flows and process helps in identifying gaps, overlaps, fragmentation and interoperability needs.
4. Use cases and analytical aims to be built from the design phase.
5. Anchor data governance in key process for strengthening disaster risk governance and ensuring risk-informed development.
6. Look comprehensively at all key components of disaster-related statistics not only on the disaster impact, DRR relevant activities are very important, expenditure tagging and tracking systems are very relevant.
Thank you

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