

Introduction to the Disaster-related Statistics Framework (DRSF)

Global Webinar on Strengthening Climate Change and Disaster-Related Statistics: Needs, Priorities, and Action

Asia and the Pacific, Europe and Western Asia 3-4 May 2023



Outline

- I. Why do we need improved disaster information?
- II. What are disaster-related statistics?
- III. What constitutes the DRSF?
- IV. Use of disaster-related statistics



I. WHY DO WE NEED IMPROVED DISASTER INFORMATION?



Rationale of the DRSF

Challenges

Call for improved statistics to strengthen evidence base for DRR

Countries **differ** in practices for **compiling data and statistics** related to disasters

Numerous **institutions** in countries collect disaster-related data, partly **uncoordinated**

Demand for statistical framework

Improvements to national databases on disaster risk and disaster impacts

Harmonization, comparability and consistency of methods across countries

Bridge between disaster and risk management information with socio-economic statistics

Uses of disaster-related statistics

Disaster risk mgt. planning; post-disaster assessment

Compilation of **indicators** for monitoring; empirical research

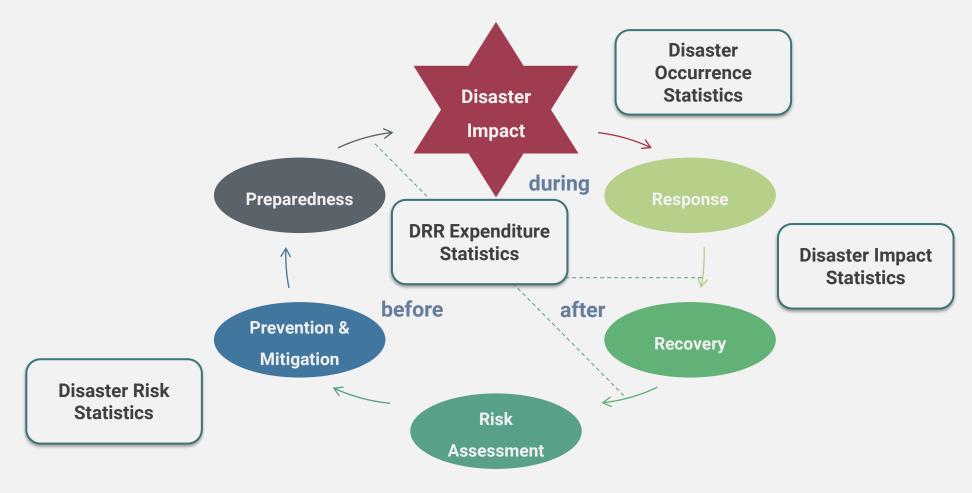
Form part of the **integrated sustainable development policy**of the country



II. WHAT ARE DISASTER-RELATED STATISTICS?



DRS and cycle of disaster risk management



Source: Diagram adapted from Thailand Department of Disaster Prevention and Mitigation (DDPM)



III. WHAT CONSTITUTES DRSF?

3 core elements of

Components of the DRSF



Emergency

Before

Hazards resulting in sudden disasters and slow processes resulting in disasters

Exposure

Vulnerability

Coping capacity

During and after a disaster

Direct impacts to environment and cultural heritage

(loss of critical ecosystems, water resources, cultural heritage zones or objects...)

Direct human impacts

(deaths or missing, injured or ill, displaced or evacuated, damages to dwellings, loss of jobs...)

Direct material impacts

and economic loss

(on fixed assets/valuables, critical goods and services, critical infrastructures...)

Indirect impacts

(decline in economic value added as a consequence of direct economic loss and/or human and environment impacts)

Disaster risk reduction activity

Disaster risk measurement



Overview of the DRSF

- A set of internally consistent and internationally consistent guidelines on how to develop a common and standardized basic range of disaster-related statistics
- Integrates data and metadata that are usually dispersed across different government agencies to produce relevant information to all phases of disaster risk management:
 - disaster preparedness
 - risk identification
 - response and recovery
 - prevention and mitigation

- Accompanied by implementation tools and resources:
 - a set of core tables (reporting templates)
 covering: the scope of the basic range of statistics
 - descriptions of good practices (case studies)
 - contains basic training materials for applying
 official statistics to production of key components
 of disaster related statistics using Geographic
 Information Systems (GIS) and other technologies

DISASTER-RELATED STATISTICS FRAMEWORK (DRSF)

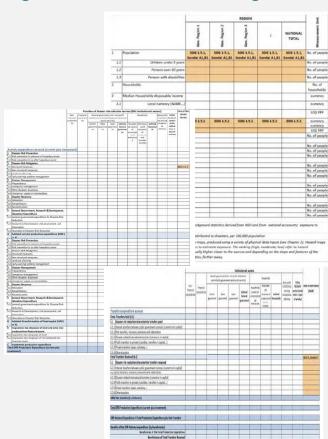


Lean more about the DRSF



DRSF Tables

- The basic range of disaster related statistics is organized according to generic tables or categories
 - of tables, as follows:
 - A: Summary tables of disaster occurrences
 - B: Selected background statistics and exposure to hazards
 - C: Summary tables of human impacts
 - D: Summary tables of direct material impacts in physical terms
 - E: Summary tables of direct material impacts in monetary terms
 - F: Summary of material impacts to agriculture
 - **G**: Summary table of **direct environmental impacts**
 - DRRE: Disaster risk reduction expenditure accounts





IV. USE OF DISASTER-RELATED STATISTICS

3 core elements of

Components of the DRSF



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Disaster risk measurement



Statistics in disaster risk reduction decision making: Sample uses of background statistics & hazard exposure

Issue:

 Use of best available knowledge so that development does not exacerbate existing (and or create new) disaster risks

Decision & plan:

•Guide policies for reducing exposure and for vulnerable groups (including, potentially, via relocation outside of hazard areas)

Statistics:

Vulnerability and baseline of exposure:
 (demographic and socioeconomic statistics)
 e.g. baseline of exposure in areas prone to
 hazards and identifying vulnerable groups

Issue:

•Risk profiles are changing as new information becomes available and development in potentially vulnerable areas takes place

Decision & plan:

 How to invest in risk reduction measures as an integrated part of the broader poverty reduction and sustainable development initiatives

Statistics:

 Identifying factors that cause and or exacerbate disaster risks, e.g., environmental degradation, highly vulnerable infrastructure, or extreme poverty.



background statistics & hazard exposure (cont.)

RISK ASSESSMENT



Concept

Process to determine the nature, extent, and locations of risk, by analysing exposure and conditions of vulnerability to hazards and present coping capacities against all types of disaster impacts.

Indicators

- Disaster risk indices
- · Multi-hazard risk indices

Summary Tables

DRSF Tables B

Data and Statistics

- Population density by location
- •Characteristics of dwellings
- Information on assets of households, such as type of dwelling



background statistics & hazard exposure (cont.)

Hazard Exposure by geographic regions **EXPOSURE TO HAZARDS Indicators** Population Exposure by social groups Exposure of Land and Infrastructure by Hazard Type Concept State of being in which a person or a group of people remain in an imminent **Summary Tables** DRSF Tables B risk of danger due to hazards Hazard map Map of the population, critical infrastructure **Data and Statistics** Population density Land cover/Use •HH income



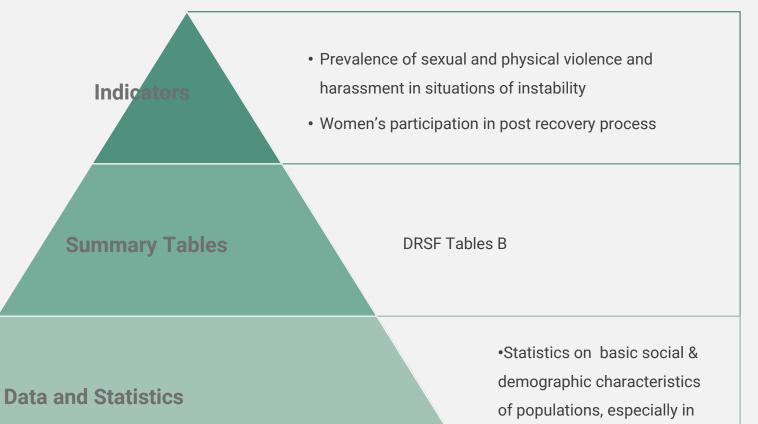
background statistics & hazard exposure (cont.)

VULNERABILITY



Concept

Conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards.



high-risk areas.



background statistics & hazard exposure (cont.)

COPING CAPACITY



Concept

Resilience of households, businesses, communities, social-ecological systems, and whole countries against external shocks in the form of a disaster

Share of HH with emergency plans

Population covered by early warning systems

Share of HH with improved access to water

• Share of local government adopting DRR strategies

Summary Tables

India

DRSF Tables B

Data and Statistics

•Disaster preparedness of HH; trainings attended

•Early warning systems

•Investments in DRR

DRR plans and strategies



Coordination beyond NSO and NDMA

Other stakeholder in line ministries and local governments should also be consulted and included in stakeholder meetings where relevant and possible.





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