



Centre for Research  
on the  
Epidemiology of  
Disasters (CRED)

# An Analytical Review of Selected Data Sets on Natural Disasters and Impacts

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## BACKGROUND

Increasing natural disasters

Increasing vulnerability

Increasing need for an evidence-base for:

- Risk analysis
- Mitigation & prevention
- Preparedness & relief activities



## BACKGROUND

### Lack of

Coverage/Resolution on:  
occurrence  
impacts

Standardization for:  
Definitions  
Typologies  
Methodologies  
Sourcing  
Inter-operability



## WORKSHOP CONTEXT

- Share experiences
- Identify gaps
- Work towards complementarity



## REPORT OBJECTIVES

- List of databases
- Summarize:
  - Content
  - Presentation
  - Accessibility
- Identify gaps and strengths



## CRITERIA OF SELECTION

- Disasters-related
- Data on human or economic losses
- Recycled or Information databases excluded



## SEARCH STRATEGY

- Identify historical databases
- Limited to English language databases
- Use of Google
- Interviews with CRED, UNDP, ADRC, DesInventar, UN/ISDR, PSEPC
- Background studies



## DESCRIPTION CRITERIA

- Name of database - Institution
- Disaster types/country(ies) covered
- Number of entries
- Time period
- Inclusion criteria
- Sources
- Type of data provided
- Transparency of the information
- Accessibility of the database
- Search options
- Internet address



## DATABASE TYPOLOGIES

1. International
2. Regional
3. National
4. Sub-National
5. Disaster events
6. Country-level events



## INTERNATIONAL DATABASES

- CRED: EM-DAT
- MunichRe: NatCat
- SwissRe: Sigma
- ADRC: GLIDE
- Univ. of Richmond: Disaster Database  
project
- BASICS



## REGIONAL DATABASES

- *LaRed: DesInventar* : Latin America and Caribbean database
- *ADRC*: Database of disaster information for members countries



## NATIONAL DATABASES

- EMA Disaster Database: Australia
- NEMO Disaster Matrix: St. Lucia
- OCIPEP CDD: Canada
- Univ. of South Carolina SHELDUS: U.S.A.
- NCDC Database: U.S.A.
- NOAA NWS Database: U.S.A.
- NDCC Database: Philippines
- DWSD DROMIC Database: Philippines



## SUB-NATIONAL DATABASES

- MANDISA Database : South Africa
- UNDP/NSET : Nepal
- UNDP : Sri Lanka
- UNDP : Orissa (India)
- University of Gainsville: DesInventar Florida  
(USA)



## DISASTER EVENTS DATABASES

- USGS Database : Earthquakes
- UNEP/APELL: Technological disasters
- DFO Database: Floods
- Hydrological Information Center: Floods
- National Geophysical Data Center : Tsunami
- MARS: Industrial accidents
- MHIDAS: Industrial accidents



## COUNTRY-LEVEL EVENT DATABASES

- COPECO/DCN: Hurricane Mitch
- UNDP/COEN: El Salvador and Peru earthquakes
- UNDP: Indian Ocean Tsunami



## FOOD FOR THOUGHT

- What is a disaster?
  - Criteria
- Disaster typologies
  - Types
  - Links between Disasters



## FOOD FOR THOUGHT

- Definitions
  - Occurrence
  - Impact
- Methodologies
  - Temporal aspects
  - Events Vs. Impact levels
  - Geographical aspects



## FOOD FOR THOUGHT

- Geo-referencing
- Resolution
  - Administrative levels
- Sourcing



## FOOD FOR THOUGHT

- Accessibility
- Inter-operability
- Open Platforms
- Outputs for analyses



**THANK YOU VERY MUCH  
FOR YOUR ATTENTION**



## FOOD FOR THOUGHT

