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# National Disaster Databases

A regional perspective

(South Asia)

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#### Introduction

- Objectives
- Concepts
- Experiences
  - India
  - Nepal
  - Srilanka
  - Vietnam
  - Maldives
  - Indonesia
- Way Forward



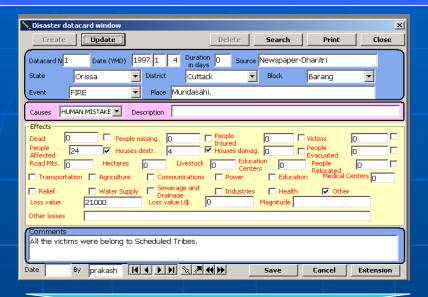
#### National Datasets- Objectives

- Capturing 'Local' level disaster data to understand the emerging risks at the local level.
- Geo-referenced inventory of small, medium and large-scale disasters to understand trends and patterns.
- To support planning & policy decisions for disaster preparedness and mitigation with statistical evidences.
- Providing an objective base for vulnerability assessment and priority setting.



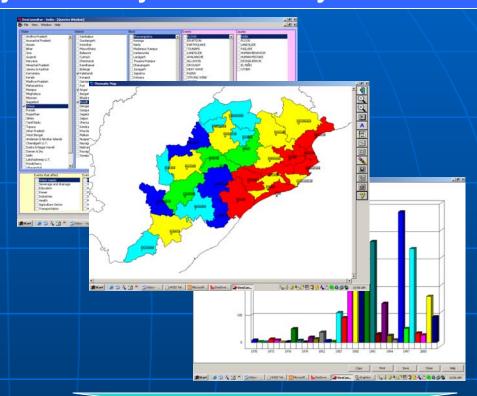
#### Tools & Methodologies for Disaster Inventories

DesInventar: A methodological tool to systematically build inventory of disasters.



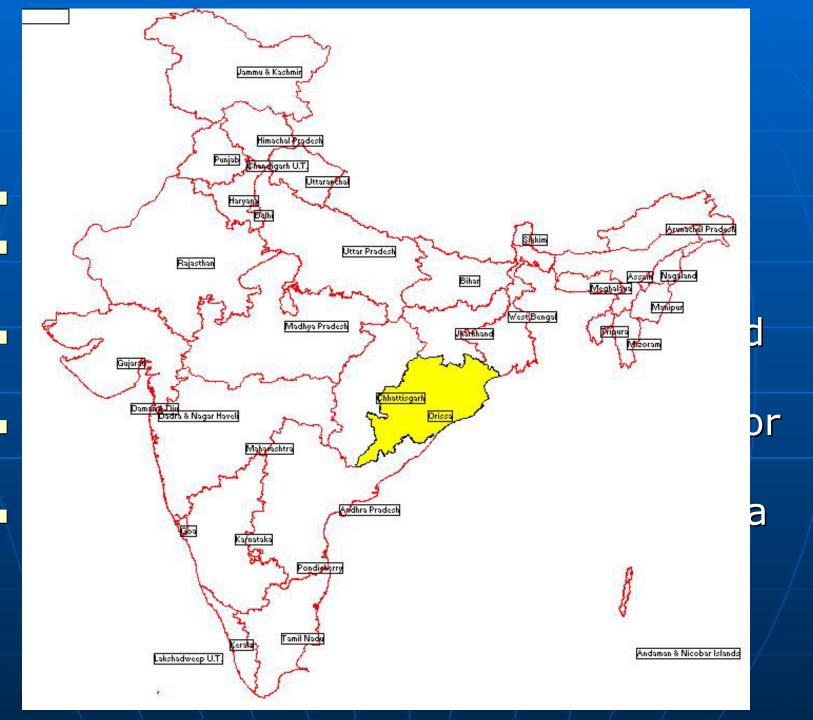
#### **DesInventar:**

• A relational database through which parameters like events, causes, data sources, and effects are captured



#### **DesConsultar:**

• A decision making tool which uses the DesInventar database to query and analyze the database through maps, tables and thematic maps.



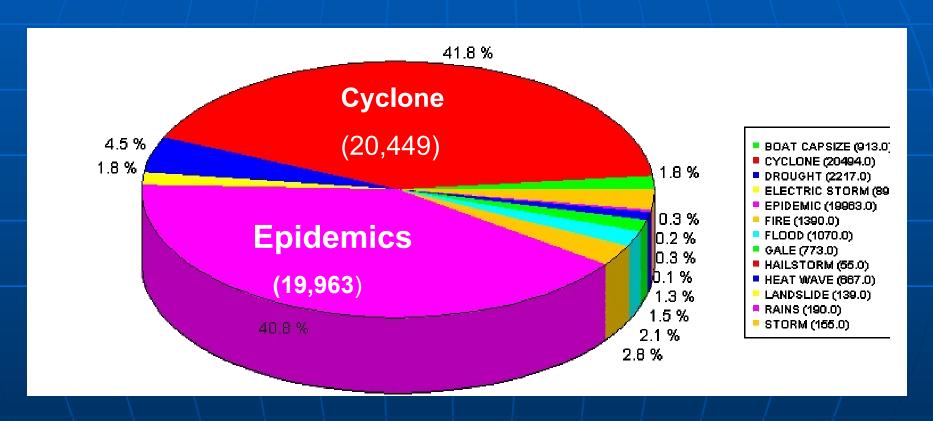


# Preliminary Findings-India

- Epidemics and cyclones are the greatest causes of deaths
- Epidemics are highly associated with floods, but also occur as independent incidents.
- Fire is the greatest cause of household destruction, comparable to Cyclone.
- Floods affect people more than any other type of disaster.



#### Impact on Life

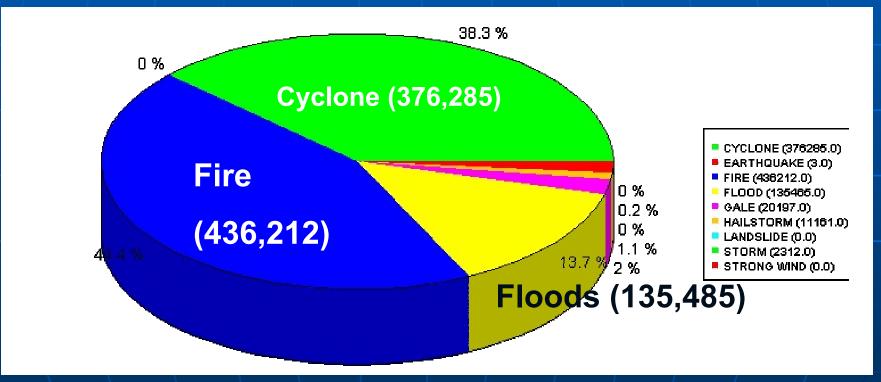


Number of people killed in disasters in Orisa



## Impact on Property

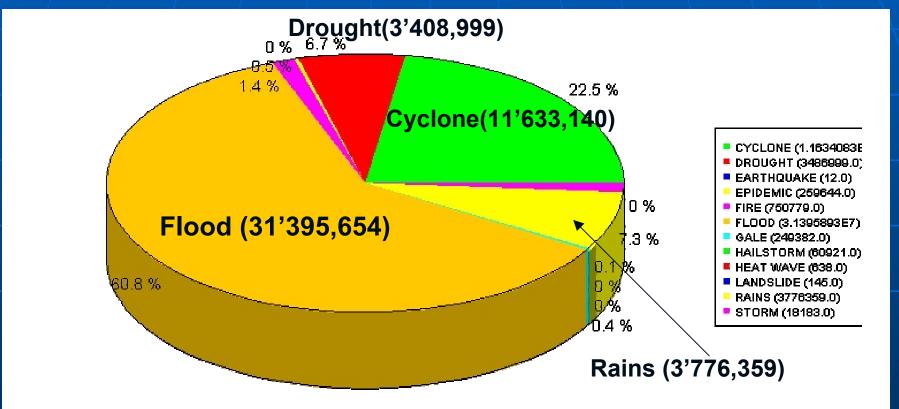
#### Number of Houses Destroyed in Disasters- Orissa





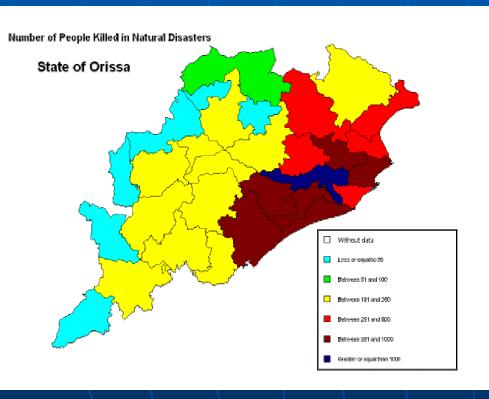
#### Impact on Livelihood

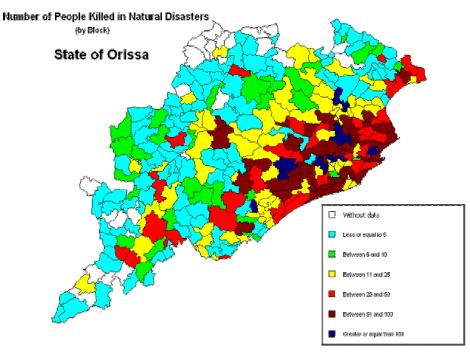
Number of people affected





# Spatial Distribution of Disasters-Orissa







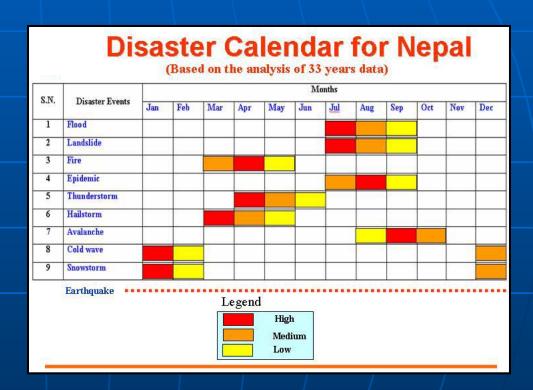
### Nepal Experience

- One of the most disaster-prone countries with frequent incidences of floods, landslides, earthquakes, epidemics, and fires.
- National Society for Earthquake Technology-Nepal (NSET), with support from United Nations Development Programme (UNDP/Nepal), implemented the disaster inventory initiative.
- Training to 10 professionals from National Planning Commission (NPC), Nepal Red Cross Society (NRCS), Ministry of Home Affairs (MOHA), Kathmandu Metropolitan City (KMC), UNDP/Nepal, and NSET.



#### Nepal- Outcomes

- 33 years of disaster events from 1971 -2003
- Data is analysed to produce temporal, geographical, seasonal and related outputs.
- Facilitated development of a 'Disaster Calendar' to capture probability of disasters during the year.



Disaster Calendar of Nepal

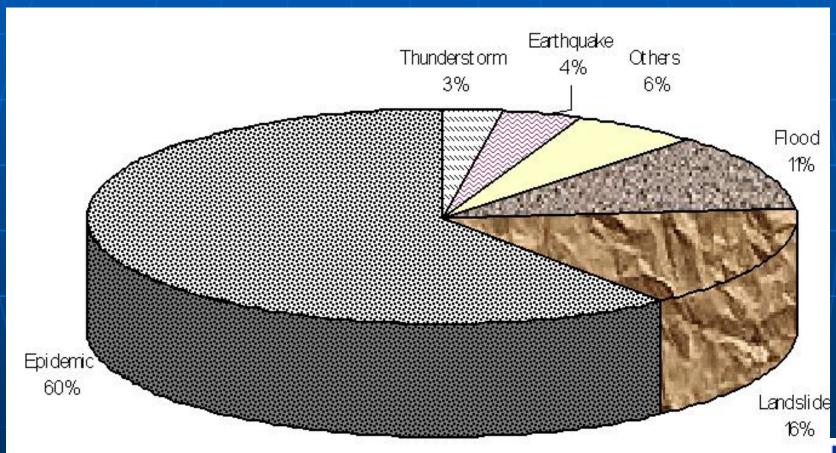


# Major Findings- Nepal

- Total reports 12, 474
- Total human dead 24,523
- Total people affected 4,444,775 Total building destroyed - about 200,000
- Total livestock killed about 200,000
- Total economic loss 532,000 million (about 3 times of present annual budget of the country)
- The trend of Natural events and their impact is increasing

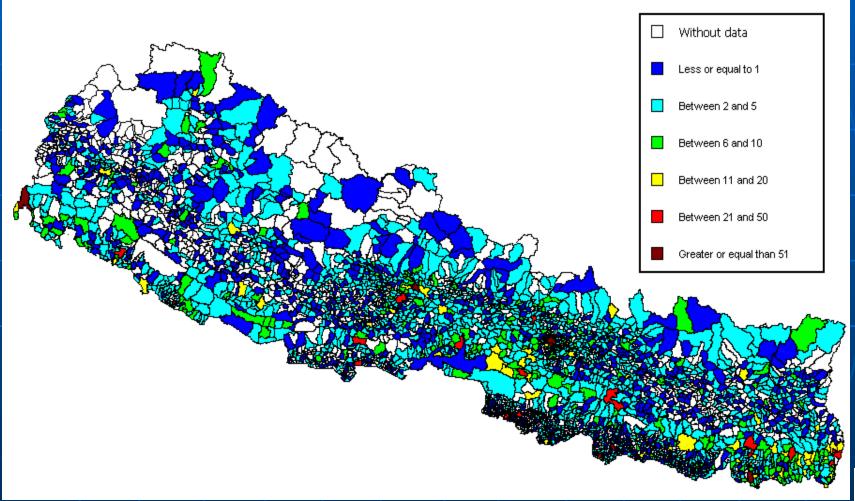


#### Nepal - Outcomes





# Disaster occurrences during 1971-2003 in Different Villages of Nepal





#### The Srilankan Database

- Training on the methodology and the tool.
- Institutionalization with the Ministry of Women Empowerment & Social Development, National Disaster Management Cell (NDMC).
- Historical data collection started.
- The recent devastating Tsunami brought in some innovative use of the tool
  - Used in capturing the immediate looses and thus helped in relief and response planning.



#### The Vietnam Initiative

- Training on the methodological tool to 25 Government and non Government functionaries.
- Programme is being formulated by Vietnam Government and UNDP in consultation with BCPR.
- Central committee for Floods and Storm Control (CCFSC), Government of Vietnam likely to become the host

# DesInventar- as a Response Decision Support System

- During the recent Tsunami the methodological tool is used as a response decision support system in Maldives, Indonesia and Srilanka.
- The tool is customized for these countries with the help from technical resource person of BCPR.

#### Maldives:

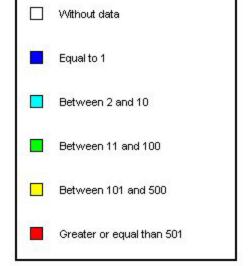
- Training on the tool and methodology to 9 members of statistical division of the ministry.
- Capturing damage data in the recent tsunami.
- Need assessment based on the statistical damage assessment.
- Damage assessment data is available at:
  - http://206.191.28.107/download/maldives\_damage.zip

#### Indonesia:

- Used to capture damage data.
- Data used in immediate decision making of relief and recovery

# Maldives, tsunami dec. 26, 2004. Houses destroyed by atoll.





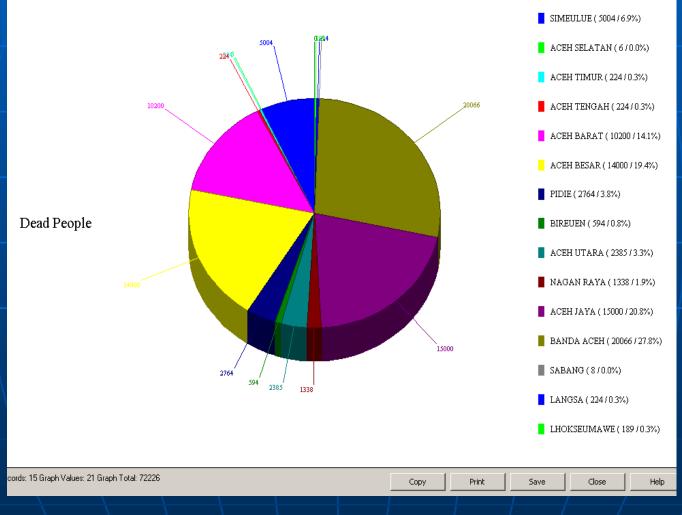






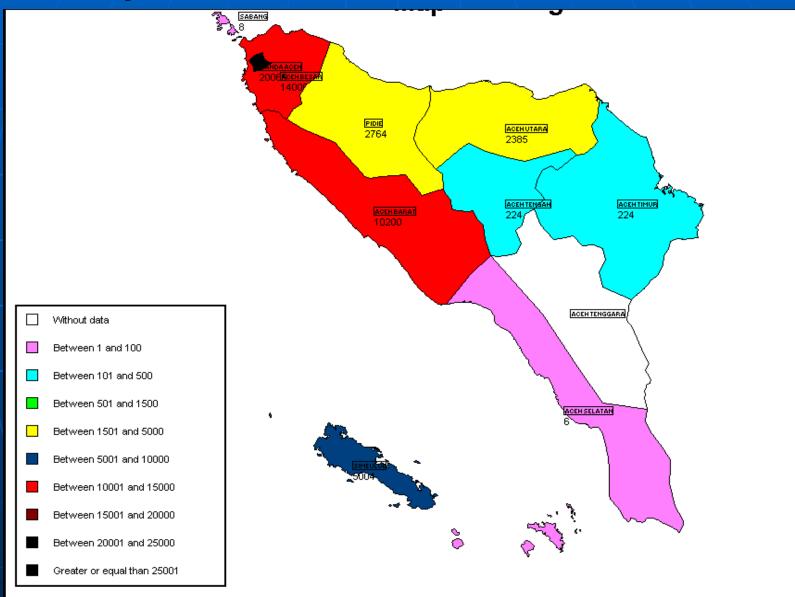


#### Report from Indonesia





#### Reports from Aceh Province





#### Way Forward

- Putting up a system to capture disaster data on regular basis.
- Customization of the methodology to fit in to the regional scenario.
- Definition of a methodology to generate a numeric index based on trends, patterns and impact.
- Use of the indices in Risk Assessment