Highlighted applications in India

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DATABASES FOR DRM

Data on Hazards: *various hydrological, geological, meteorological and manmade threats*

Disaster Data *: Database of all the events happened with the damages and losses*

Vulnerability Indicators *: Social and economic factors*

Resource Databases *: data on material and skilled human resources*

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Orissa Pilot – Indis Data

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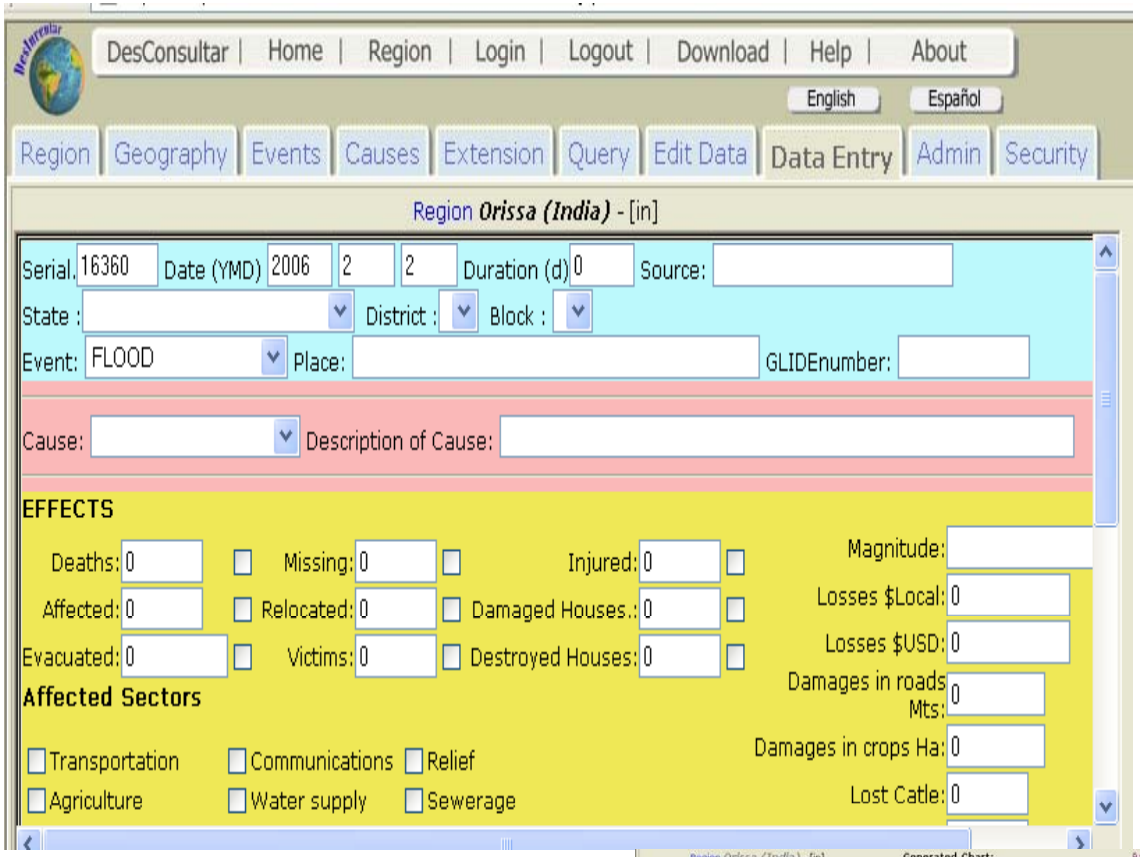
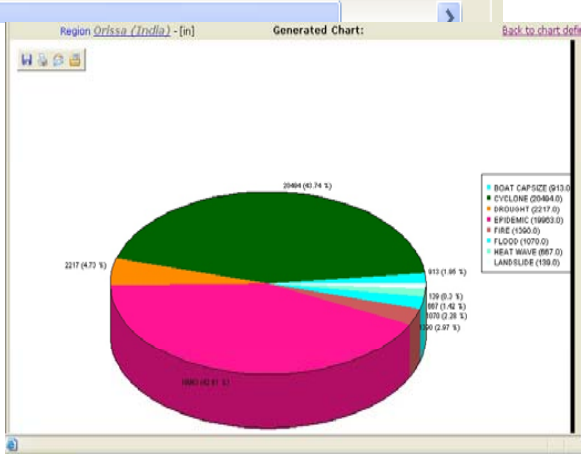
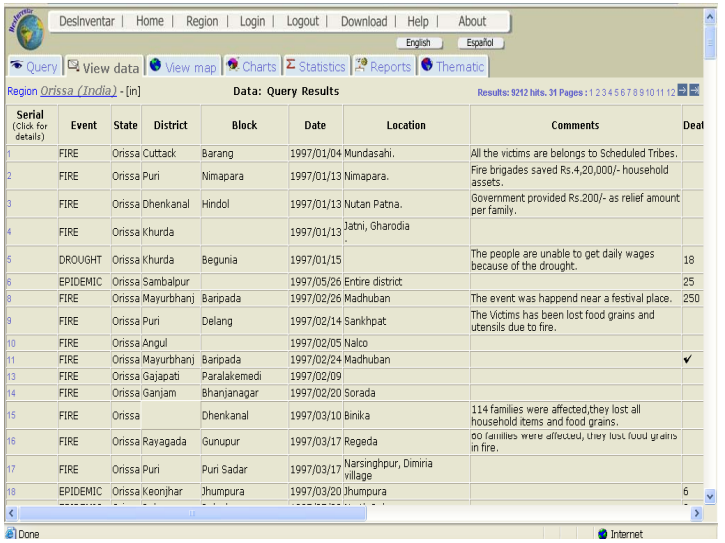
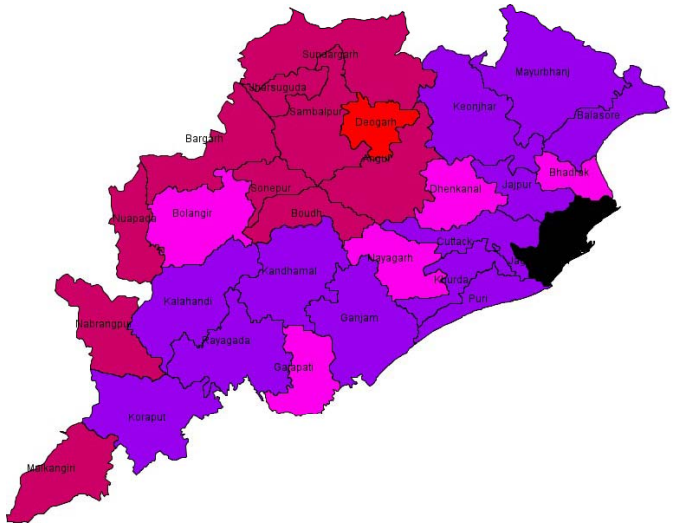
DATA ENTRY FORMAT





DATA CARD





http://www.desinventar.org

Orissa Indis Data

- A pilot project (Indis data) completed to test and adapt DesInventar methodology in Orissa (2002-2004).
- Data collected for 30 districts and 314 blocks
- 32 years data (1970-2002) collected from media & Government records.
- Institutionalization with Government (OSDMA) for sustainability was done in 2004.
- Orissa Vulnerability report based on disaster inventory and other related datasets was prepared in the year 2005.

INDIS Data implementation

- *Introductory workshop on disaster inventories and Indis Data (DesInventar) method.*
- *Specific training on the use of the Indis data methods and software - Customization of methods and software for Orissa*
- *Identification of data sources and securing access to them*
- *Selection and training of researchers*
- *Data collection and Data entry by researchers*
- *Data validation followed by overall analysis of patterns*
- *Sector specific analysis of patterns and generation of hypothesis*
- *Use of the information and the inferences as inputs for compiling Orissa vulnerability report*

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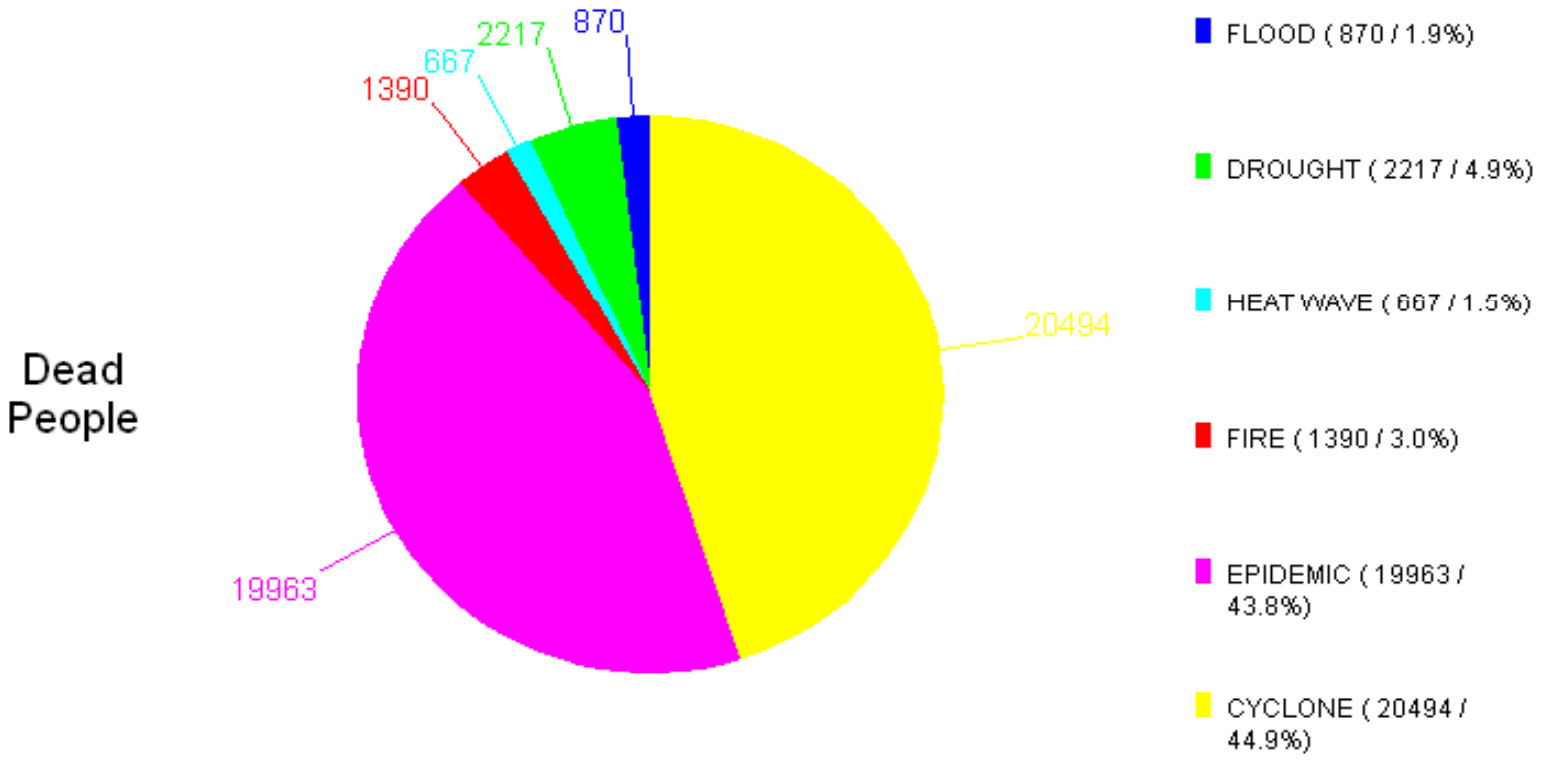
Preliminary Findings

- *Interpretation and analysis of the data shows new dimensions of risk & vulnerabilities of the State.*
- *Cyclones (life) and floods (livelihood) are Orissa's most damaging disasters.*
- *Epidemics are the greatest cause of deaths after cyclones*
- *fire is the greatest cause of household property destruction. Many epidemics follow floods .*
- *Deaths due to epidemics indicates the high human vulnerability and lack of adequate planning and medical facilities.*
- *There has been increasing damages to property showing high degree of physical exposure while the number of deaths are reducing.*

Cont...

Impact of different disasters on life



- **human life lost due to epidemics is comparable with the life lost due to cyclones.**
- **Epidemics following floods shows the low economic level and lack of medical facilities**
- **Death due to drought dep**

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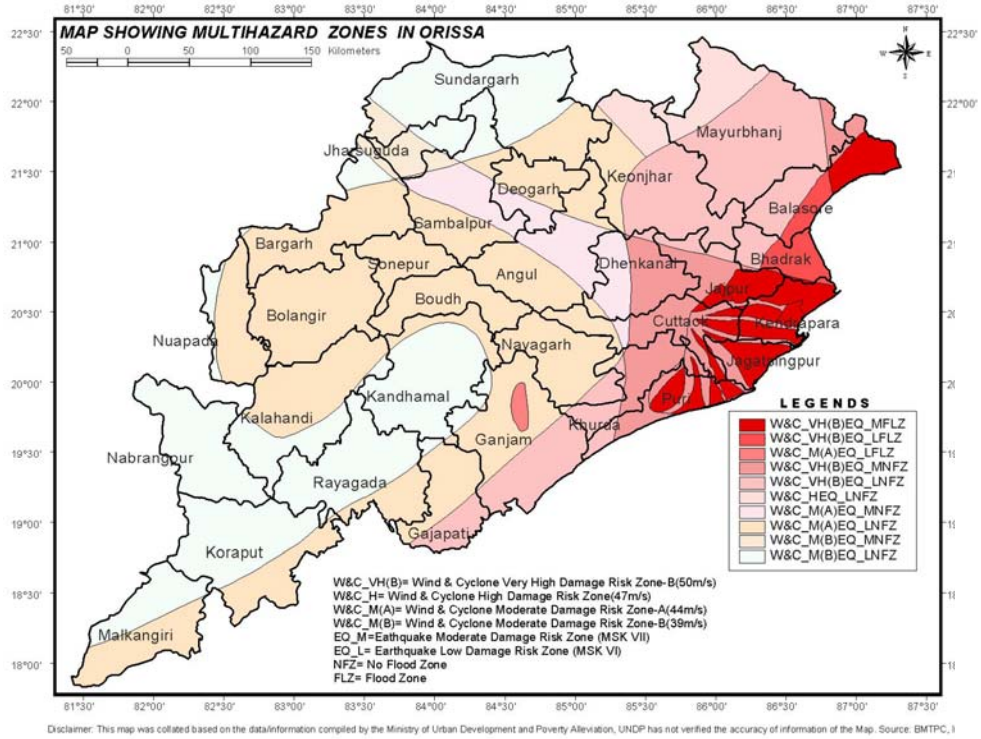
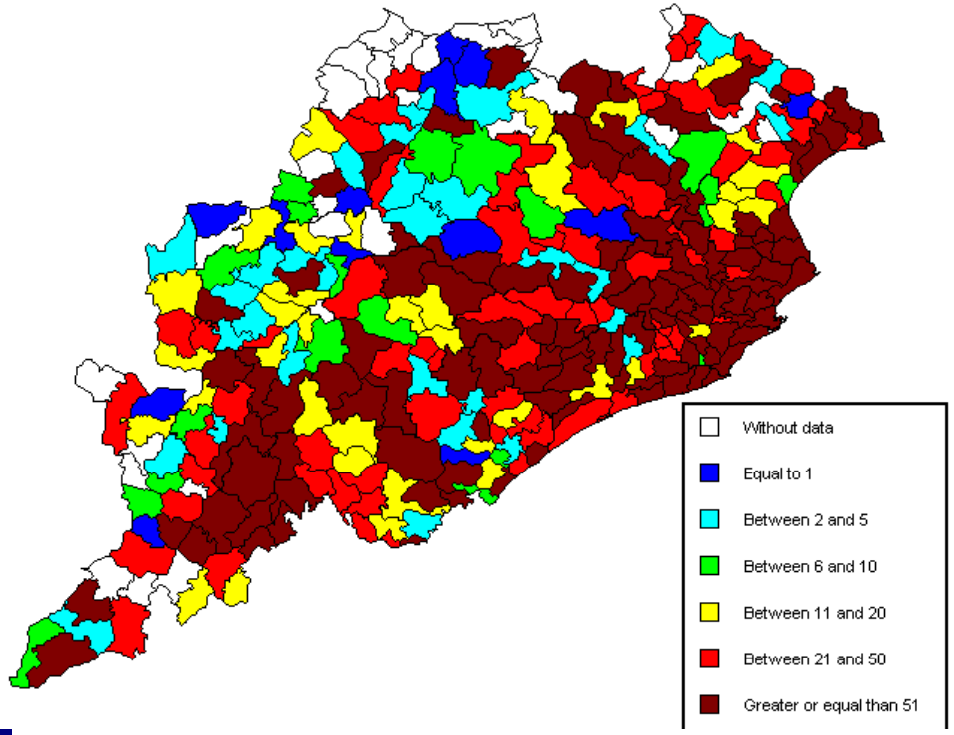
Total Number of Deaths Reported and its comparison with Vulnerability Atlas





Districts like Rayagada , Koraput Kalahandi have low multi-hazard vulnerability (BMTPC ATLAS).
Most of the deaths are due to drought, epidemics etc.

But the lose of life due to various disasters is high in these districts.

This real time data uncover the hidden vulnerabilities like lack of awareness, low economy level, poor health facilities etc.

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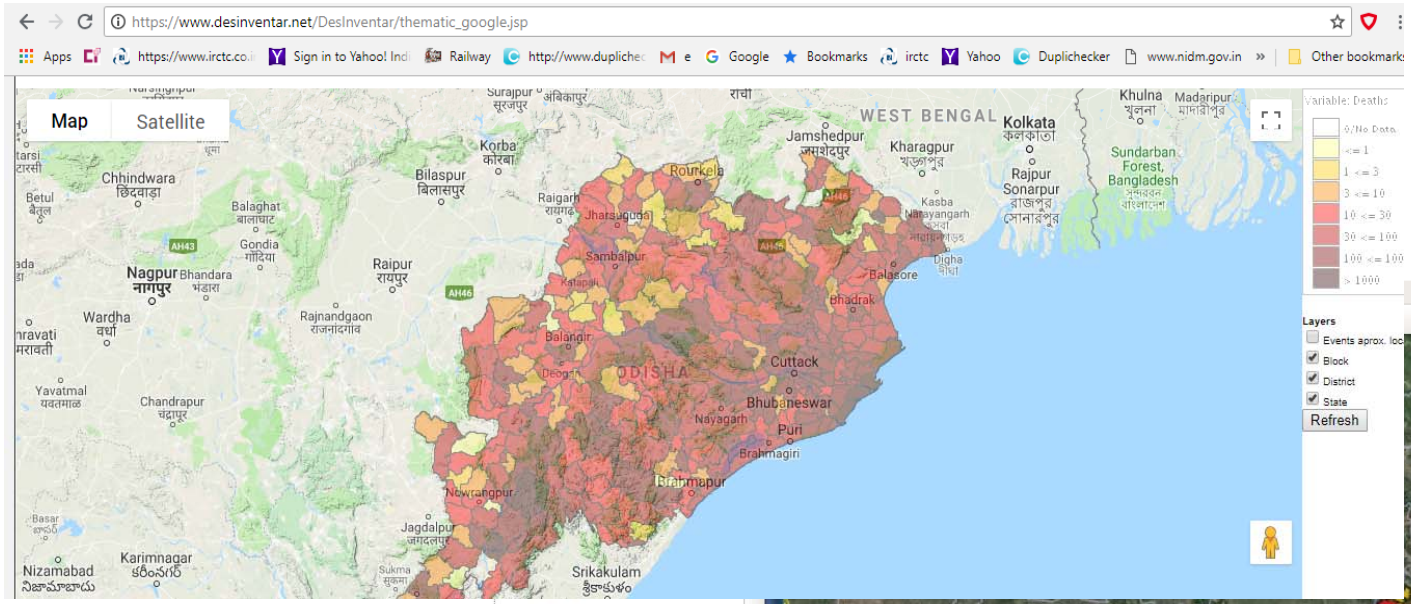
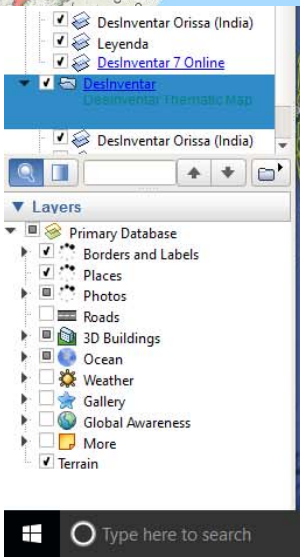
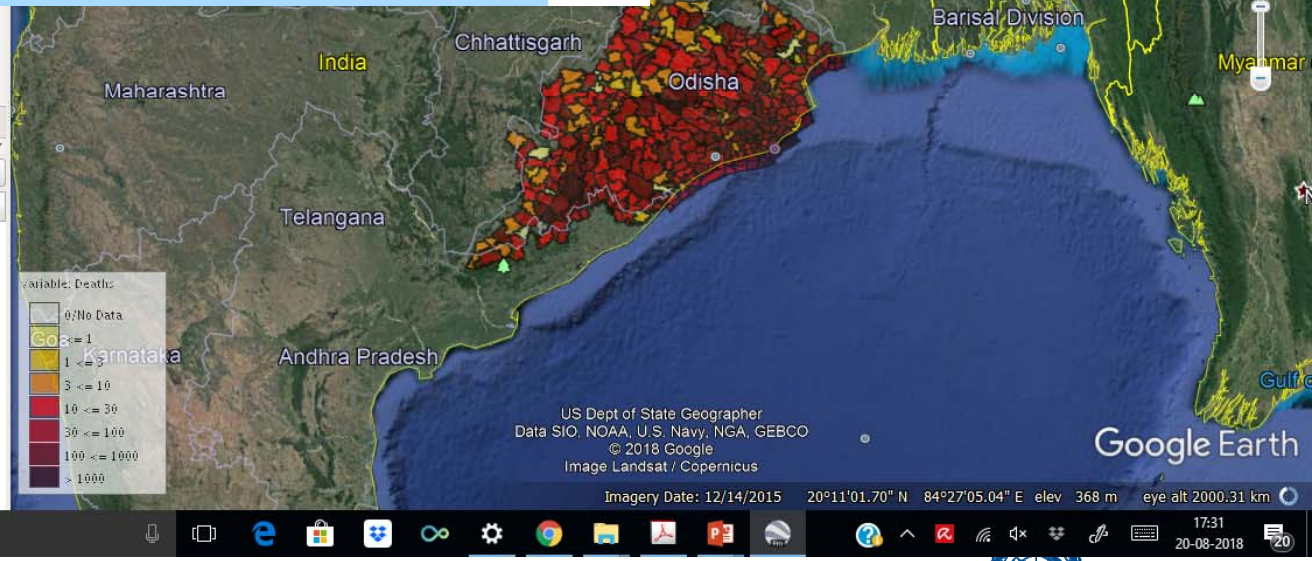
Google maps and Google earth







Maps to kml

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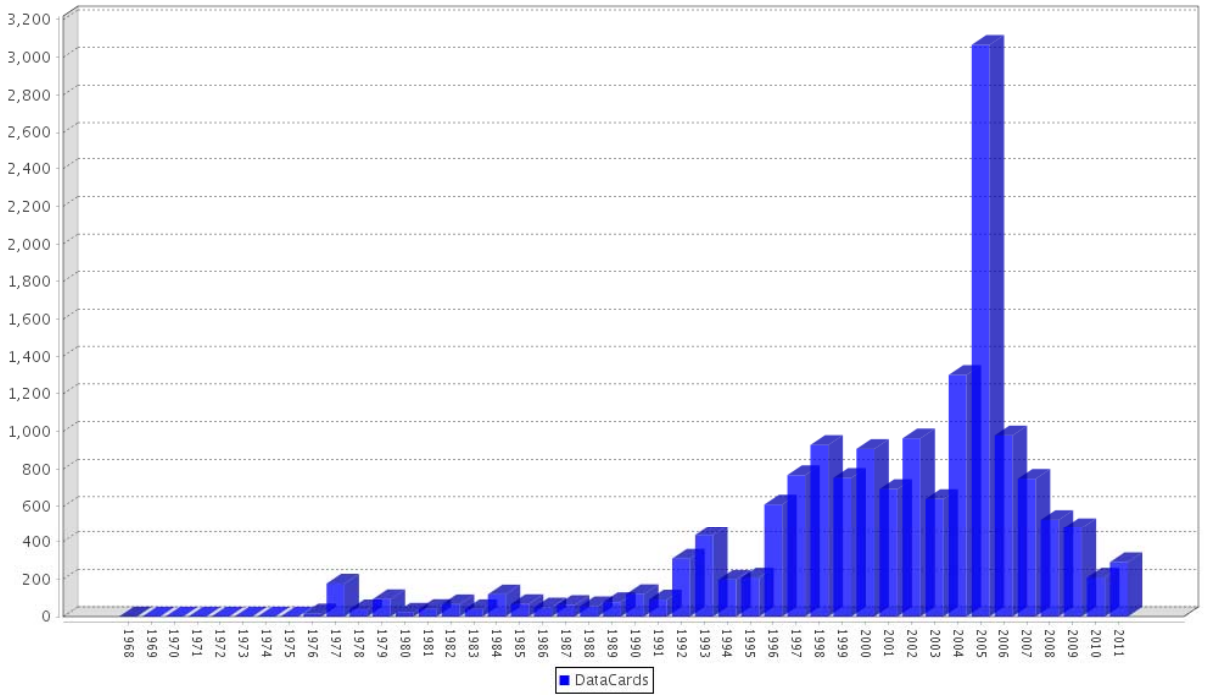
Tamil Nadu – Desinventar Database

- Orissa disaster database was found helpful in understanding the spatio- temporal and typological distribution.
- Under the regional tsunami recovery programme, Indis data initiative was replicated in 3 more states of India (Tamil Nadu, Kerala and Andhra Pradesh)
- Tamil Nadu initial data collection training etc with Anna Institute of Management and the data was hosted in 2007 in revenue department website (1976-2011).
- Other 2 states data collection was done for shorter period but was never institutionalised or hosted in state govt or desinventar server.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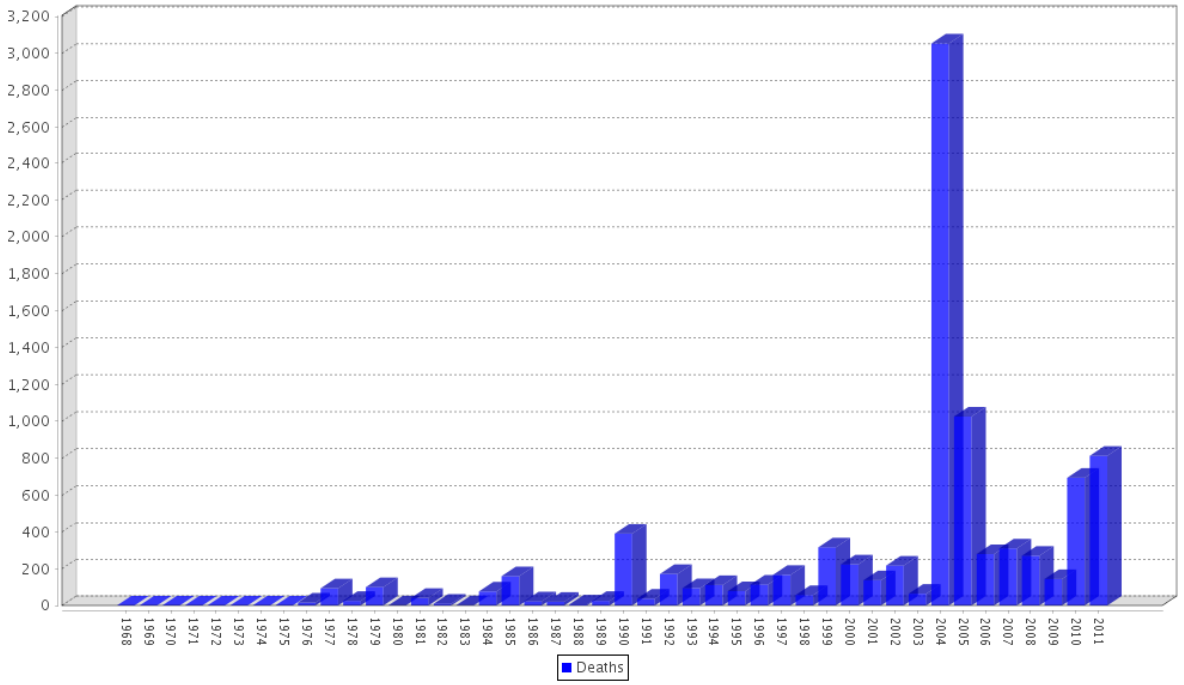
DataCards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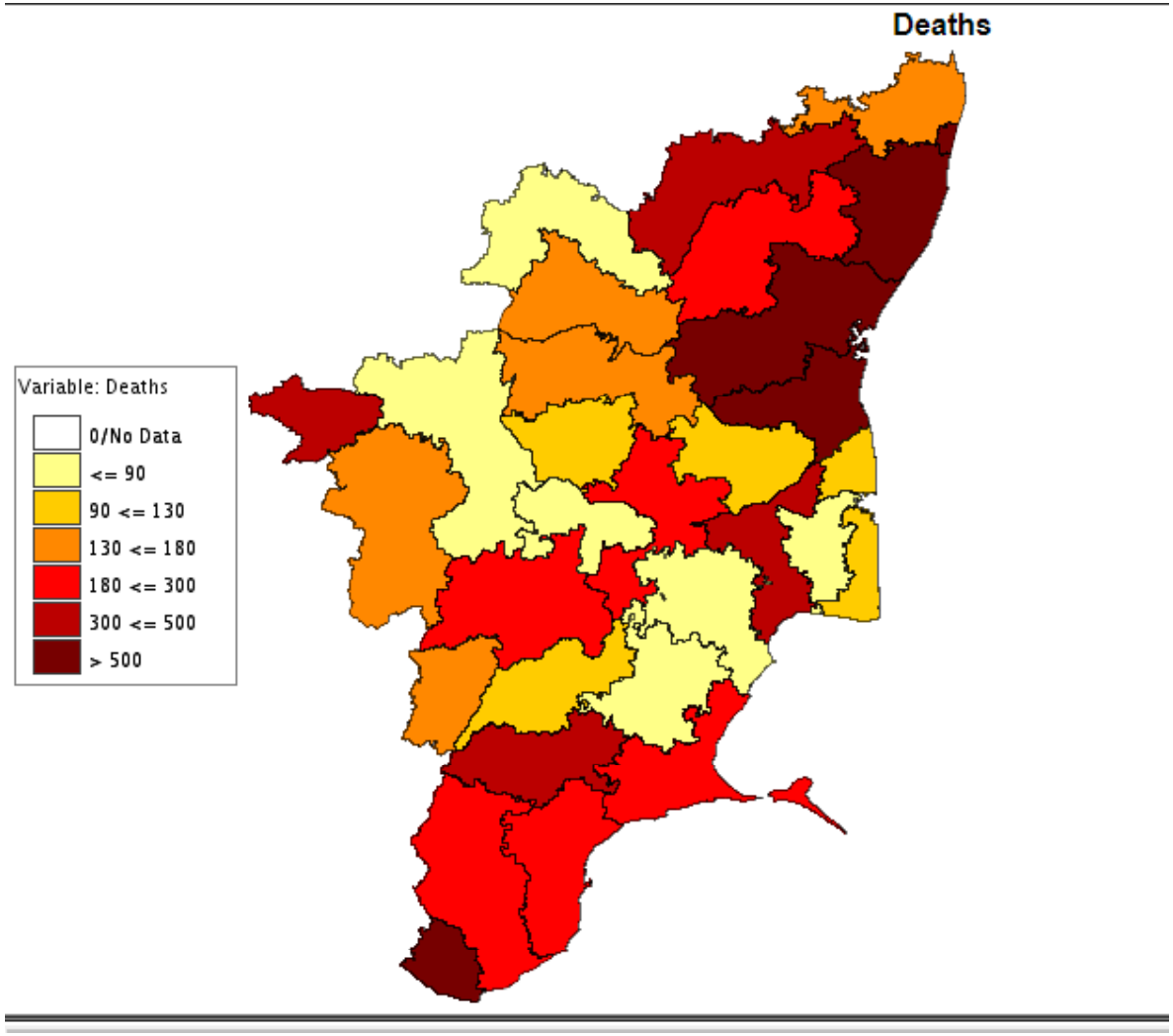
Deaths

Mortality at District Level



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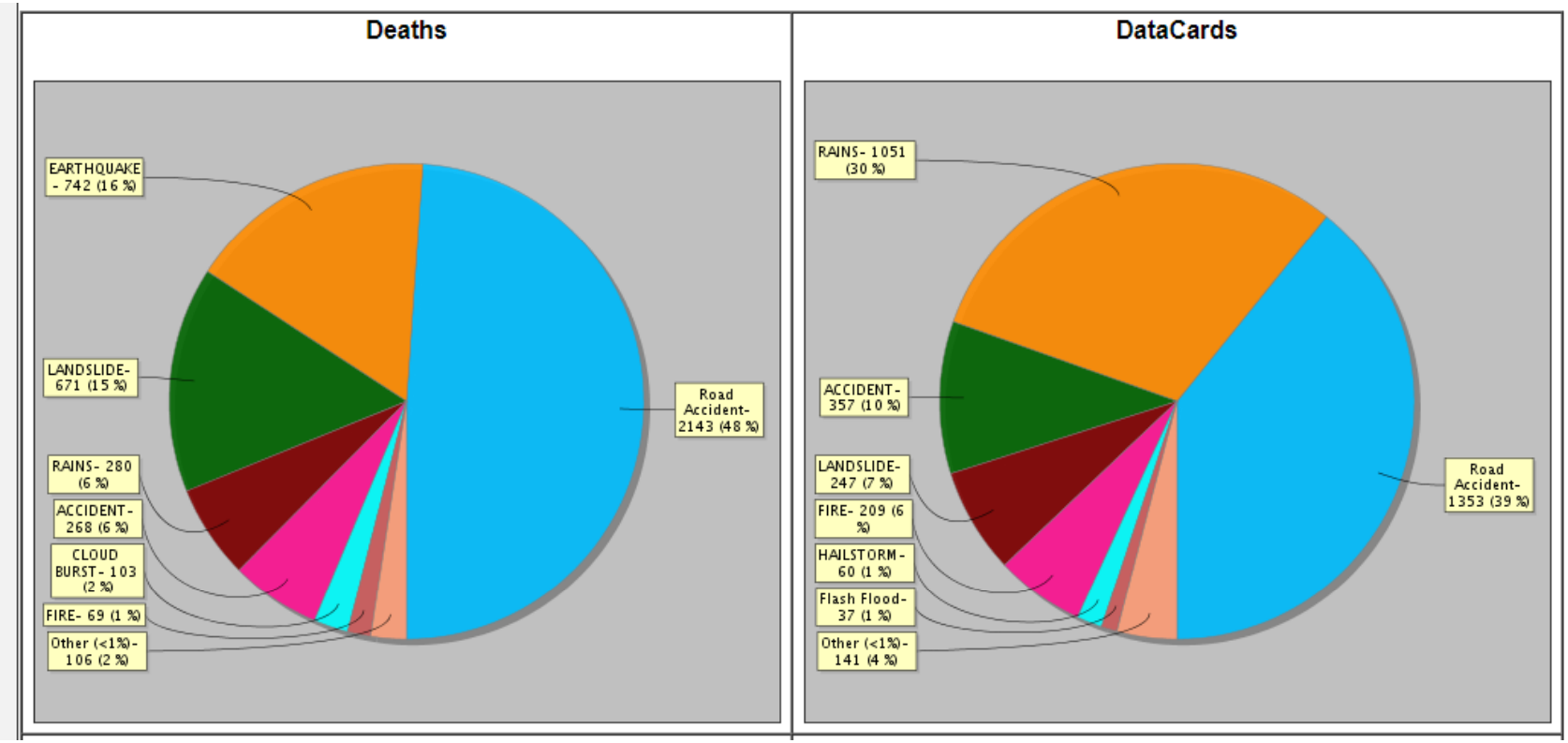
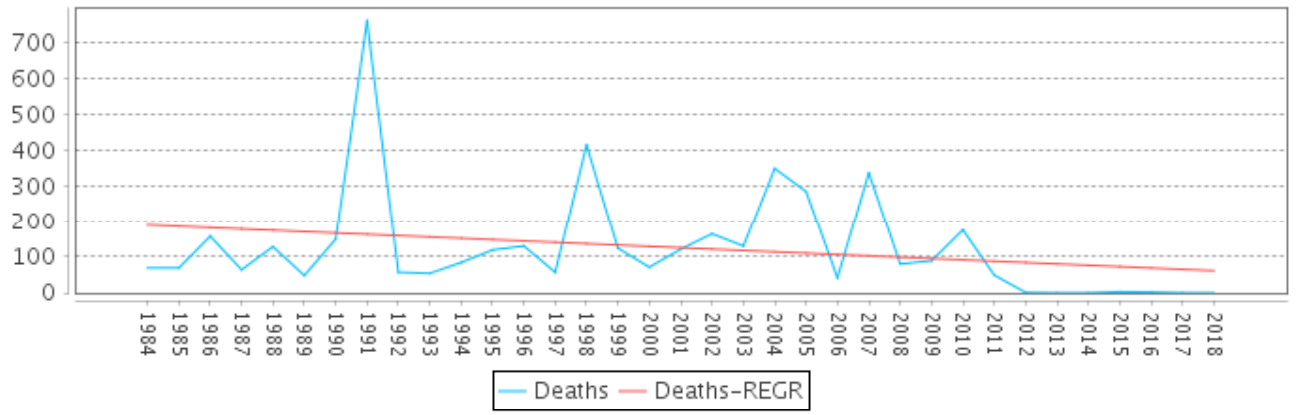
Uttarakhand

- *Started under UNDP DRM*
- *Support for organising workshop, training and technical support was provided in 2006*
- *DMMC owned the database and is upto date.*
- *The data is been updated in the desinventar server.*
- *Data for the period 1984 – 2018 available*


Deaths
EARTHQUAKE - 742 (16 %)
LANDSLIDE- 671 (15 %)
RAINS- 280 (6 %)
ACCIDENT- 268 (6 %)
CLOUD BURST- 103 (2 %)
FIRE- 69 (1 %)
Other (<1%)- 106 (2 %)
Road Accident- 2143 (48 %)
DataCards
RAINS- 1051 (30 %)
ACCIDENT- 357 (10 %)
LANDSLIDE- 247 (7 %)
FIRE- 209 (6 %)
HAILSTORM- 60 (1 %)
Flash Flood- 37 (1 %)
Other (<1%)- 141 (4 %)
Road Accident- 1353 (39 %)

Deaths



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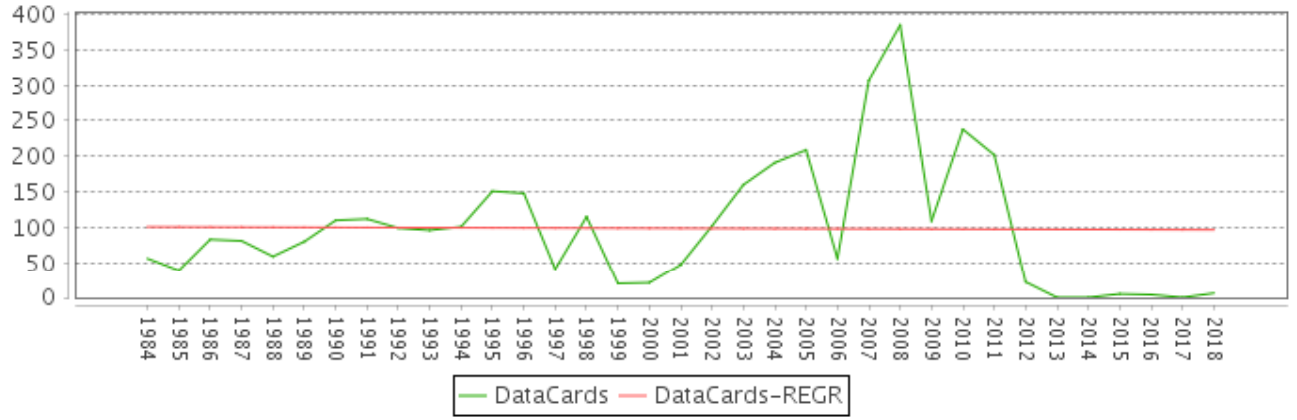
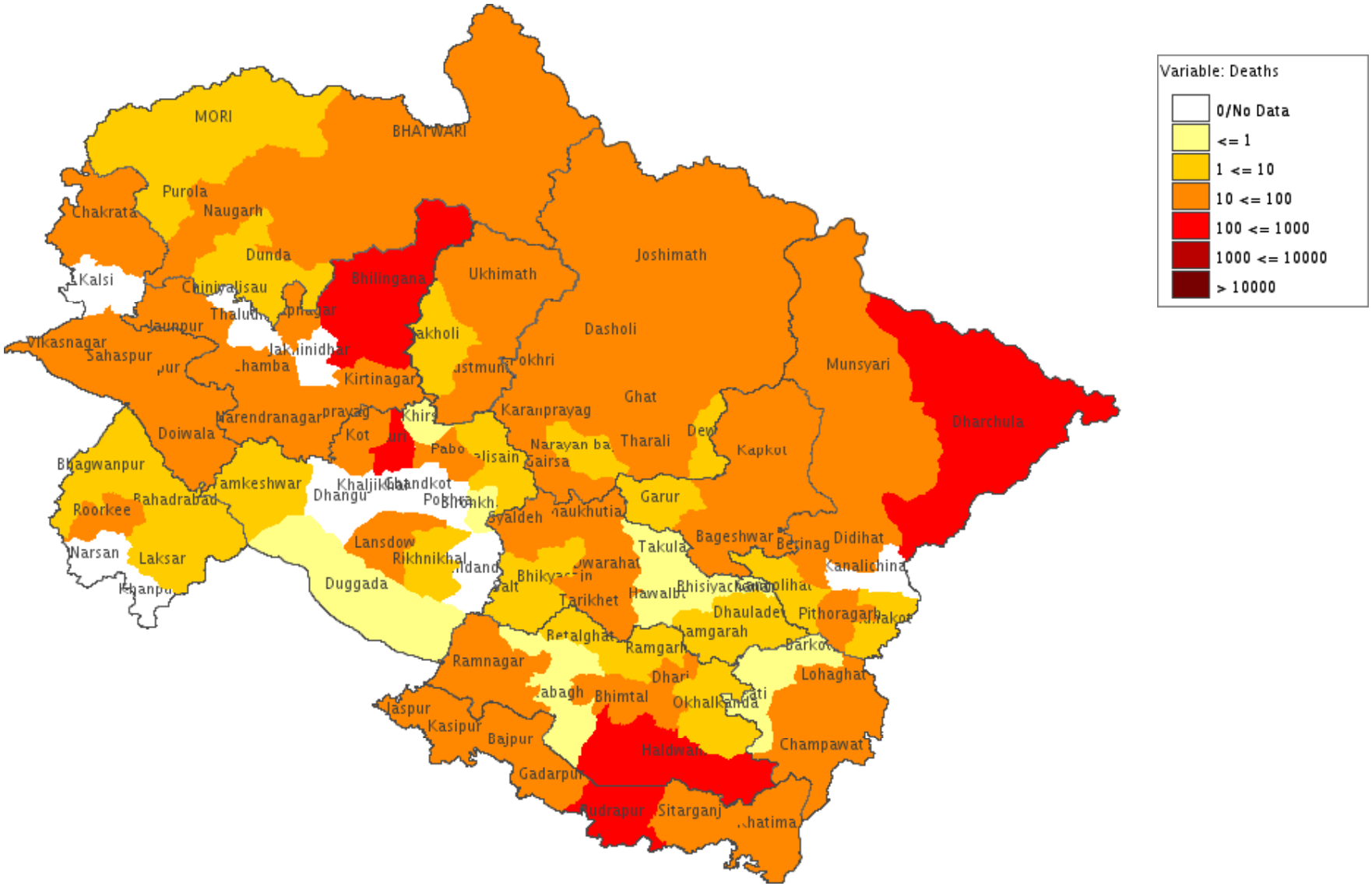


Deaths due to various disasters



Potential of Disaster Damage and Loss data

- *Assessment of damages and losses for response, immediate relief and compensations*
- *Post disaster needs assessment and formulation of recovery programmes*
- *Identifying the hotspots and spatial, temporal and typological distribution*
- *Prioritising the disaster mitigation and risk reduction programmes*
- *Monitoring and evaluation (Including SFDRR, SDG etc.)*
- *Validating models*
- *Probabilistic Risk Assessments*

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THANK YOU

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