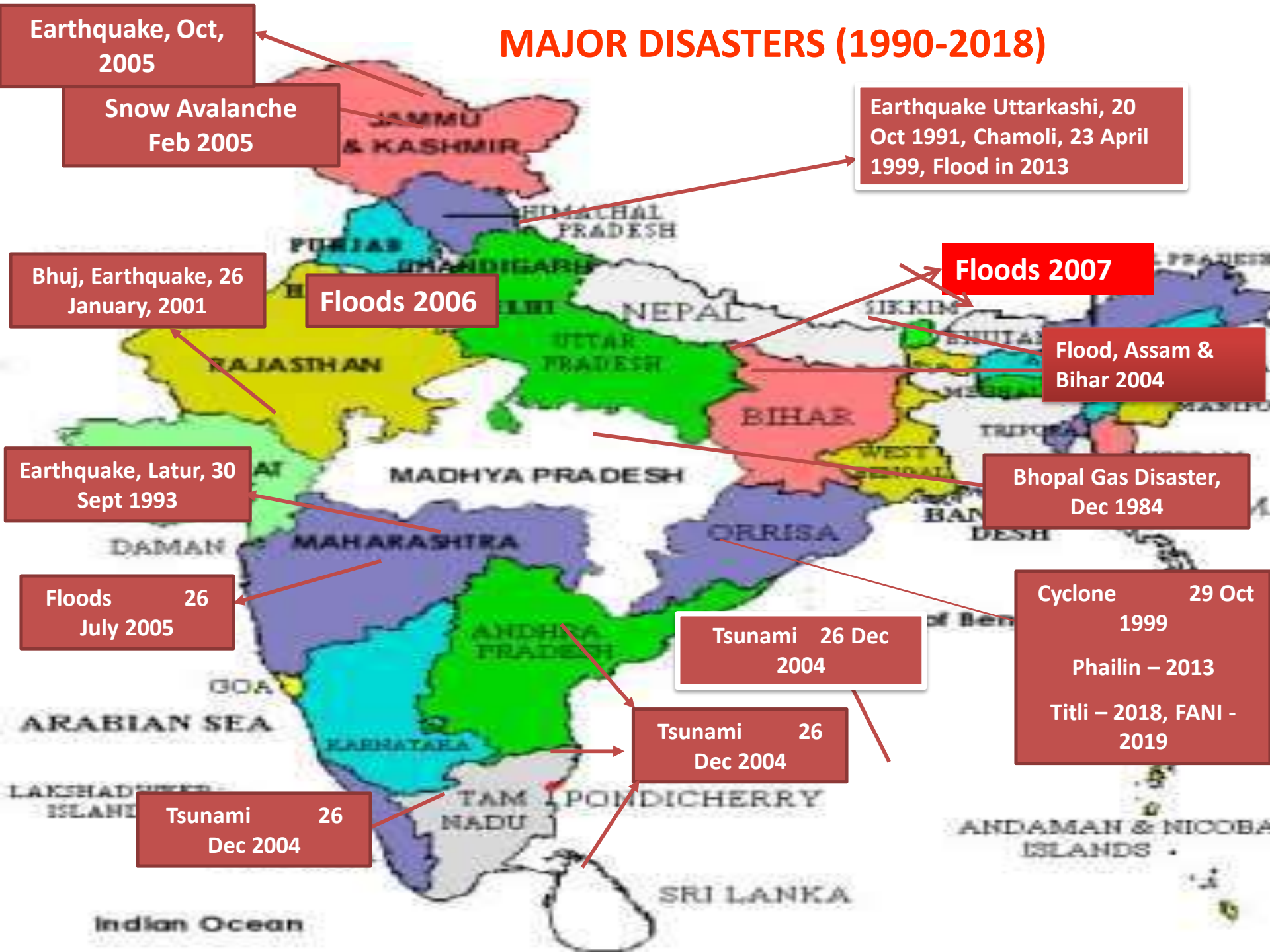




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Disaster Management

MAJOR DISASTERS (1990-2018)





Vulnerabilities

- It includes the states of Maharashtra, Goa, Karnataka and Kerala. The region consists of three sections: the Northern part of the **coast** is called the Konkan (Mumbai-Goa), the central stretch is called the Kanara, while the southern stretch is referred to as the Malabar **Coast**.
- **58.6 per cent of the landmass is prone to earthquakes of moderate to very high intensity.**
- 16% of total area is drought prone and approximately 50 million people are annually affected by drought.
- **Of the 7,516 km long coastline, close to 5,700 km is prone to cyclones and tsunamis.**
- **Over 40 million hectares (12 per cent of land) is prone to floods and river erosion.**
- Good number of rivers and tributaries create flood and make people, properties and environment havoc .

Consequences of a “dynamic” Earth

- Earthquakes



-

- Mountain Building



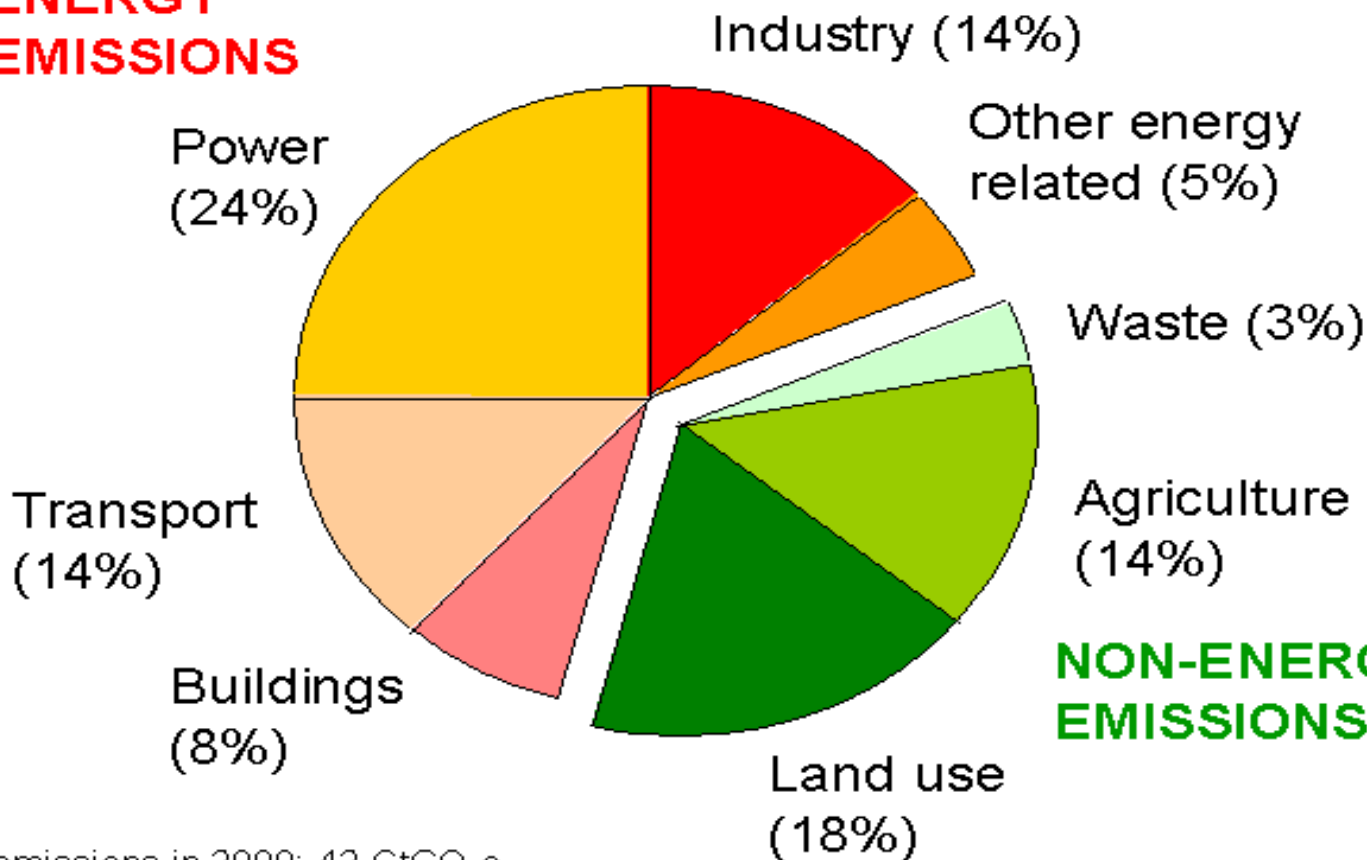
Vulnerability to cyclone

- According to a Planning Commission report, the key vulnerabilities of India include the following:
- Coastal States, particularly in the East Coast and Gujarat on west coast, are vulnerable to cyclones.



Environment Pollution

ENERGY EMISSIONS



NON-ENERGY EMISSIONS

Total emissions in 2000: 42 GtCO₂e.



Richter Earthquake Magnitudes Effects

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Less than 3.5	Generally not felt, but recorded.
3.5-5.4	Often felt, but rarely causes damage.
Under 6.0	At most slight damage to well-designed buildings. Can cause major damage to poorly constructed buildings over small regions.
6.1-6.9	Can be destructive in areas up to about 100 kilometers across where people live.
7.0-7.9	Major earthquake. Can cause serious damage over larger areas.
8 or greater	Great earthquake. Can cause serious damage in areas several hundred kilometers across.



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Frequency of Occurrence of Earthquakes



Magnitude	Average Annually
8 and higher	1
7 - 7.9	17
6 - 6.9	134
5 - 5.9	1319
4 - 4.9	13,000 (estimated)
3 - 3.9	130,000 (estimated)
2 - 2.9	1,300,000 (estimated)



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What is Disaster Management

Disaster Management is a collective term for all aspects of planning and responding to disasters, including both pre- and post-disaster activities.





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Why Disaster Management



Elements At Risk

- This includes who and what can be damaged
 - **People their lives and health**
 - **Household and community structures like houses, community centers, schools , public buildings etc.**
 - Community facilities and services like access roads, bridges, hospitals, electricity, water supply etc
 - **Livelihood and economic activities like jobs, production facilities and equipments, crops.**
 - **The natural environment like natural resources base**



Elements at risk

- **People**
- **Livestock**
- **Rural Housing Stock**
- **Houses Vulnerable**
- **Crops, Trees, Telephone, Electric poles**
- **Nets and Boats, , Working Implements**
- **Personal Property**
- **Electricity, Water and Food Supplies**
- **Infrastructure Support**



What is Disaster Management

- Disaster Management is a range of activities designed in **Pre, During and Post disaster** situation to implement so as to effectively response and recover from the expected losses, damages of lives, livelihood, properties and environment.



Disaster Management Cycle





Management activities in Pre disaster situation

Centurion UNIVERSITY **vention & Mitigation**

Includes any activities that prevent a disaster, reduce the chance of a disaster happening, or reduce the damaging effects of unavoidable disasters. Structural and non structural measures

- **Preparedness**

Includes plans or preparations made to save lives or property, and to help the response and rescue service operations

- **Early warning**

Sharing of pertinent information to the people on alertness to response to a possible hazards.



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Management activities during disaster

- **Search and Rescue**

Victims in debris, cut off areas, marooned in the water are rescued by the skilled volunteers/professional

- **Relief and Response**

Victims of affected areas are provided with emergency relief measures both food and non – food items



Management activities after disaster situation

Centurion **Damage Assessment** UNIVERSITY

The skilled volunteers/ community members make rapid need assessment so as to address the essential needs and requirement and save lives

- **Relief measures**

Victims of an affected area are provided with both food and non – food items so as to save lives of human and livestock.

- **Rehabilitation**

Includes actions that assist a community to return to a sense of normalcy after a disaster.

- **Reconstruction** (Permanent settlement of the victims)

- **Development** (Holistic approach to total well being)



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Disaster Management Cycle

Preparedness -- activities prior to a disaster.

Examples: preparedness plans; emergency exercises/training; warning systems.

Response -- activities during a disaster.

Examples: public warning systems; emergency operations; search and rescue.

Recovery -- activities following a disaster.

Examples: temporary housing; claims processing and grants; long-term medical care and counseling.

Mitigation - activities that reduce the effects of disasters.

Examples: building codes and zoning; vulnerability analyses; public education.



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Indian Red Cross Society
Odisha State Branch