
Disasters Management : Preparedness & Institutional Disaster Management Action Plan

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“.....Nature is hitting back. Not with the old weapons-floods, plagues, holocausts. We can neutralize them. She is fighting back with strange instruments called neurosis. She is deliberately inflicting mankind with jitters. She is taking the world away from the intellectuals and giving it back to the apes.”

Robert E. Sherwood
The Petrified Forest

Cultural Evolution



HOMOSAPIENS ~ 40,000 YEARS BACK



Hunting of Large Animals

→ Ecological Crisis



A New Economic Activity



Animals Husbandry & Agriculture

→ Ecological Crisis



A New Economic Activity



Development of Science &
Technology, Fast Exploitation of
Resources, Industrial Revolution

→ Ecological Crisis



?

In the Earth Summit 1992 the concepts of the sustainable development were discussed in view of the following facts:-

- Swift rise in the world population
- Sharp decline of the natural resources
- High rate of deforestation
- Extinction of Species
- Expanding deserts
- Depleting soils,
- Diminishing sea life
- Diminishing wild life habitat,
- Circulation of toxic poisons in the food chain,
- Thinning of ozone layer,
- Green house gases disturbing the climatic systems.

World's Deadliest Disasters

In the known history

Name of Event	Year	Country and Region	Fatalities
Earthquake	1556	China, Shaanxi	830000
Earthquake	1731	China	100,000
Cyclone	1737	India, Calcutta	300000
Yellow River Flood	1887	China	900,000-2,000,000
Messina Earthquake	1908	Italy	123000
Earthquake	1920	China, Gansu	235000
Great Kanto Earthquake	1923	Japan	142,000
Great Chinese Famine	1958-1961	China	15,000,000-43,000,000
Bhola Cyclone	1970	West Bengal, India & East Pakistan (Now Bangladesh)	500,000
Tangshan Earthquake	1976	China	242,419

In the Last Century

Name of Event	Year	Country and Region	Fatalities
China Floods	1931	China	1,000,000-2,500,000
Floods	1954	China	40,000
Cyclone	1970	Bangladesh, Chittagong, Khulna	300,000
Bangladesh Cyclone	1991	Bangladesh	139,000
Earthquake	1999	Turkey	17,000
Tsunami	2004	Indonesia, Sri Lanka, India, Malaysia, Somalia, Bangladesh, Thailand	230,210
Hurricane Katrina	2005	United States of America	1,836
Sichuan Earthquake	2008	China	87476 deaths including missing
Cyclone Nargis	2008	Myanmar	More than 138,000 deaths
Haiti Earthquake	2010	Haiti	316,000

India's deadliest Disasters

In the known history

Name of Events	Year	State & Area	Fatalities
Earthquake	1618	Mumbai, Maharashtra	2,000 deaths
Bengal Earthquake	1737	Bengal	300,000 deaths
Cyclone	1864	Kolkata, West Bengal	60,000 deaths
The Great Famine	1876-1878	Southern India	58.5 million people affected 5.5 million deaths due to starvation
Cyclone	1882	Bombay, Maharashtra	100,000 deaths
The Indian famine	1896-1897	Whole India	1.25 million to 10 million deaths
Earthquake	1934	Bihar	6,000 deaths
Bhola Cyclone	1970	West Bengal	500,000 deaths (including Hindu Kush Himalayas and surrounding areas)
Drought	1972	Large part of the country	200 million people affected

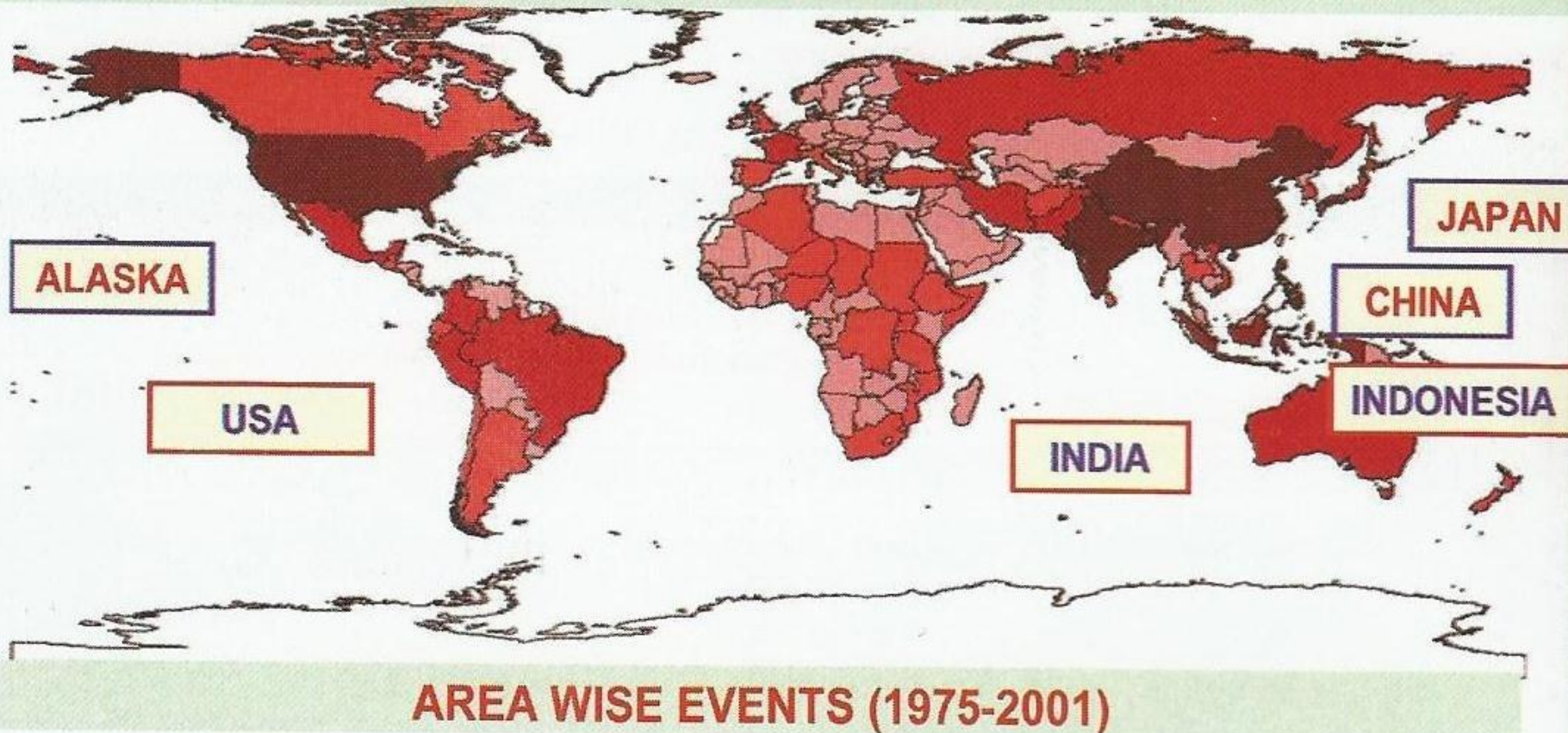
In the Last Century

Name of Event	Year	State & Area	Fatalities
Earthquake	1905	Kangra, Himachal Pradesh	20,000 deaths
Cyclone	1977	Andhra Pradesh	10,000 deaths Hundreds of thousands homeless 40,000 cattle deaths. Destroyed 40% of India's food grains.
Latur Earthquake	1993	Latur, Marthawads, region of the Maharashtra	7,928 people died and another 30,000 were injured
Orissa Super Cyclone	1999	Orissa	10,000 deaths
Gujarat Earthquake	2001	Bhuj, Bachao, Anjar, Ahmedabad and Surat in Gujarat State	25,000 deaths 6.3 million people affected
Tsunami	2004	Coastline of Tamil Nadu, Kerala, Andhra Pradesh and Pondicherry as well as the Andaman and Nicobar Islands of India	10,749 deaths 5,640 persons missing 2.79 million people affected 11,827 hectares of crops damaged 300,000 fisher folk lost their livelihoods

Name of Event	Year	State & Area	Fatalities
Maharashtra floods	July 2005	Maharashtra State	1094 deaths 167 injured 54 missing
Kashmir Earthquake	2005	Kashmir State	86000 deaths (including kashmir & surrounding Himalayan region)
Kosi floods	2008	North Bihar	527 deaths 19323 Livestock perished 222754 Houses damaged 3329423 persons affected
Cyclone Nisha	2008	Tamil Nadu	204 deaths \$ 800 million worth damages

Global Disaster Scenario: Distribution of Natural Disasters

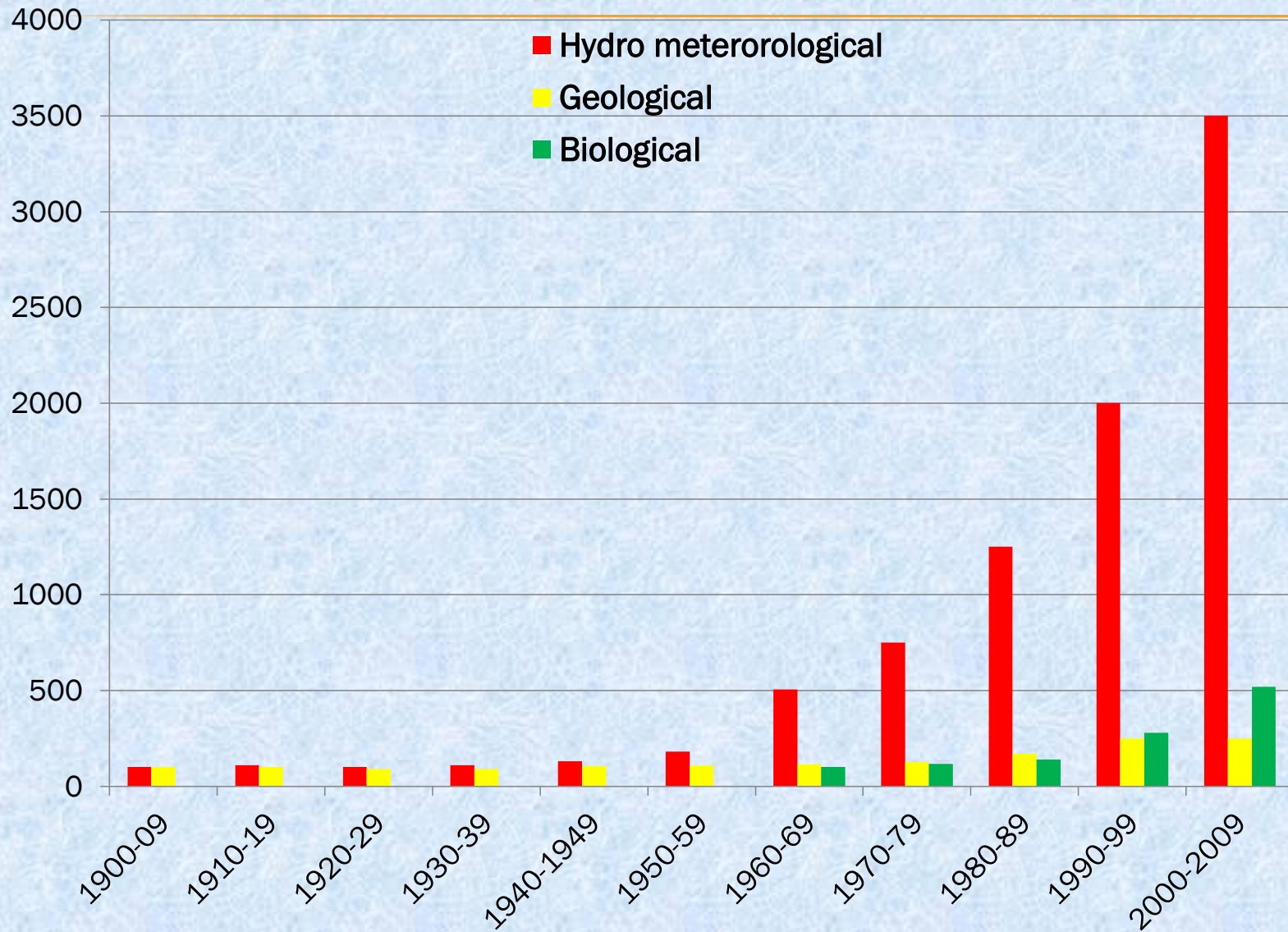
Global Disaster scenario : Distribution of Natural Disasters

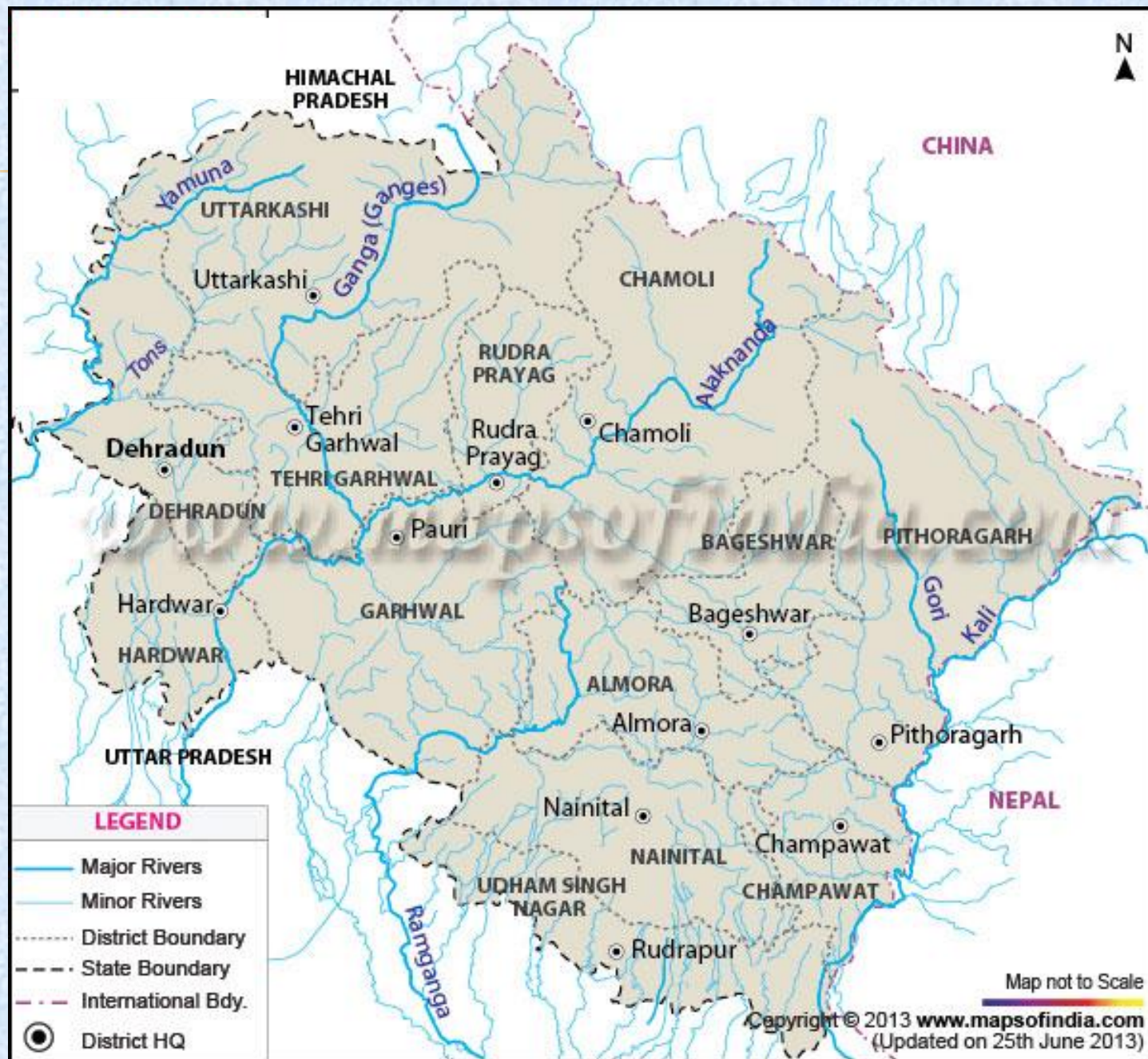


LEGEND



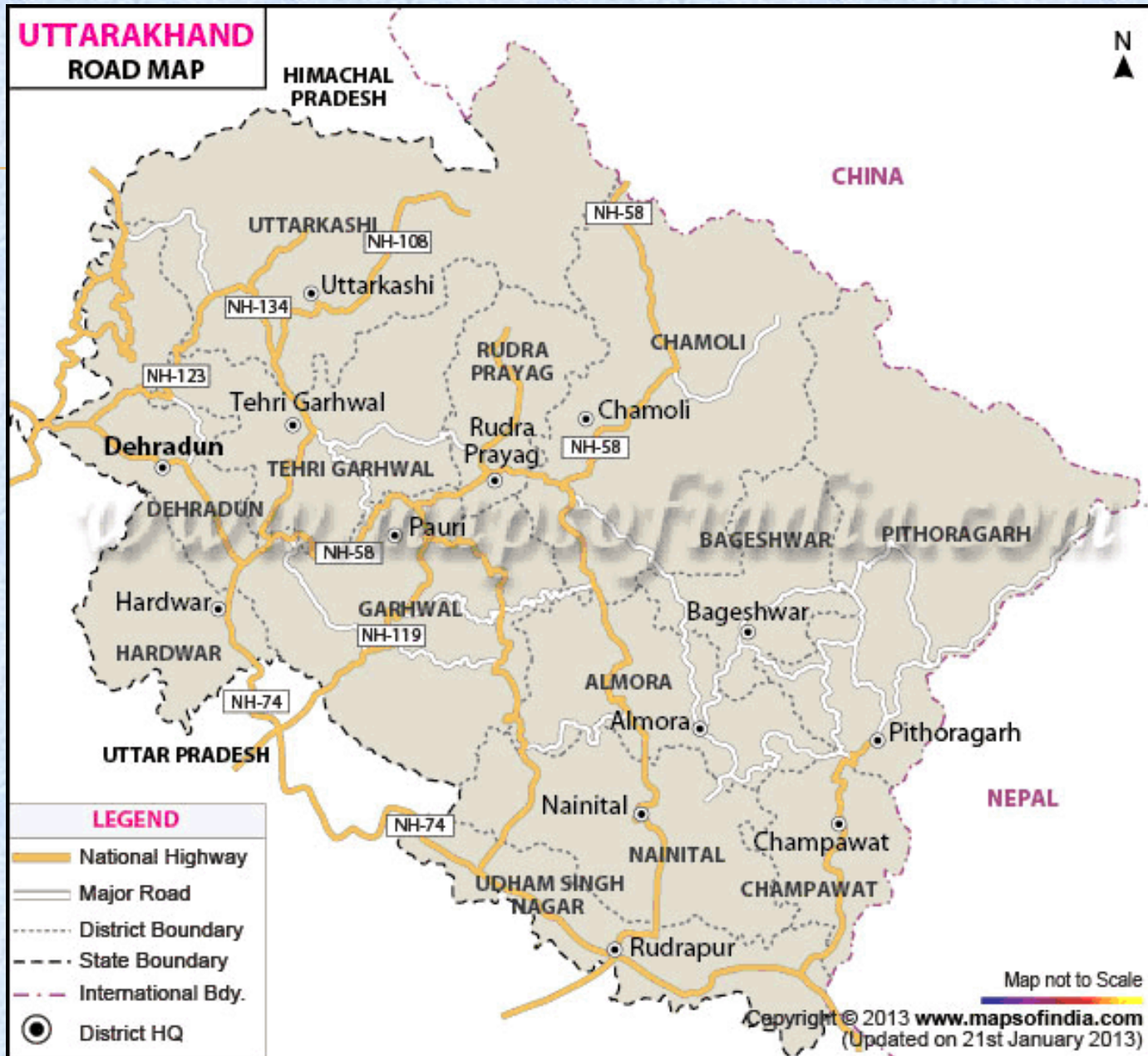
Event of Disasters globally in between 1900-2009





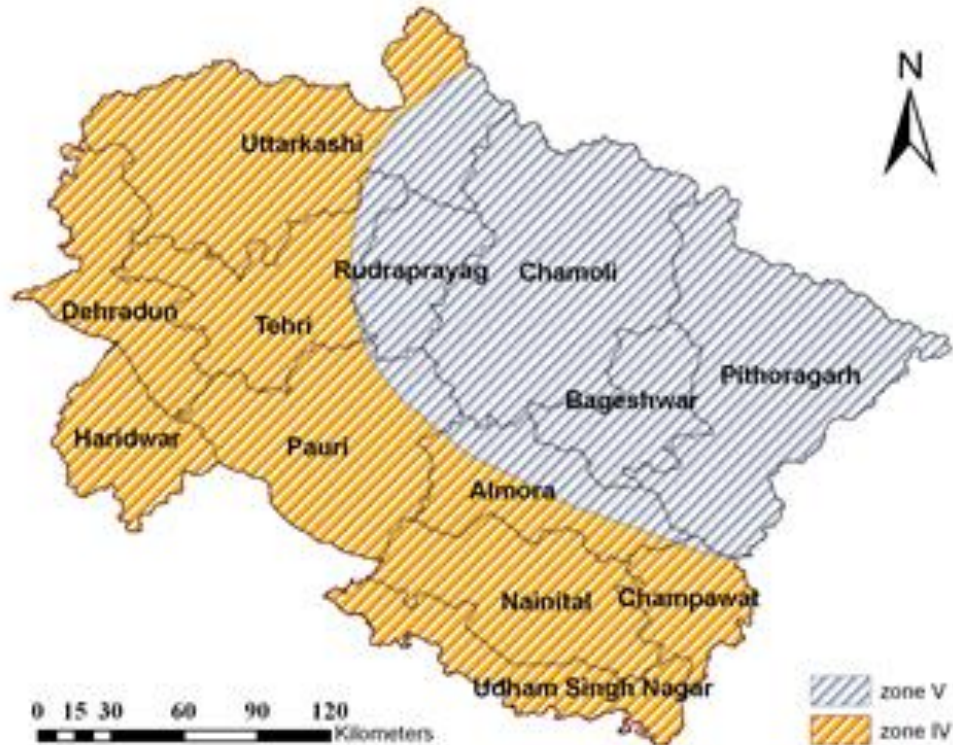
Drainage map of Uttarakhand

UTTARAKHAND ROAD MAP



Major Road Network in Uttarakhand

UTTARAKHAND EARTHQUAKE ZONATION



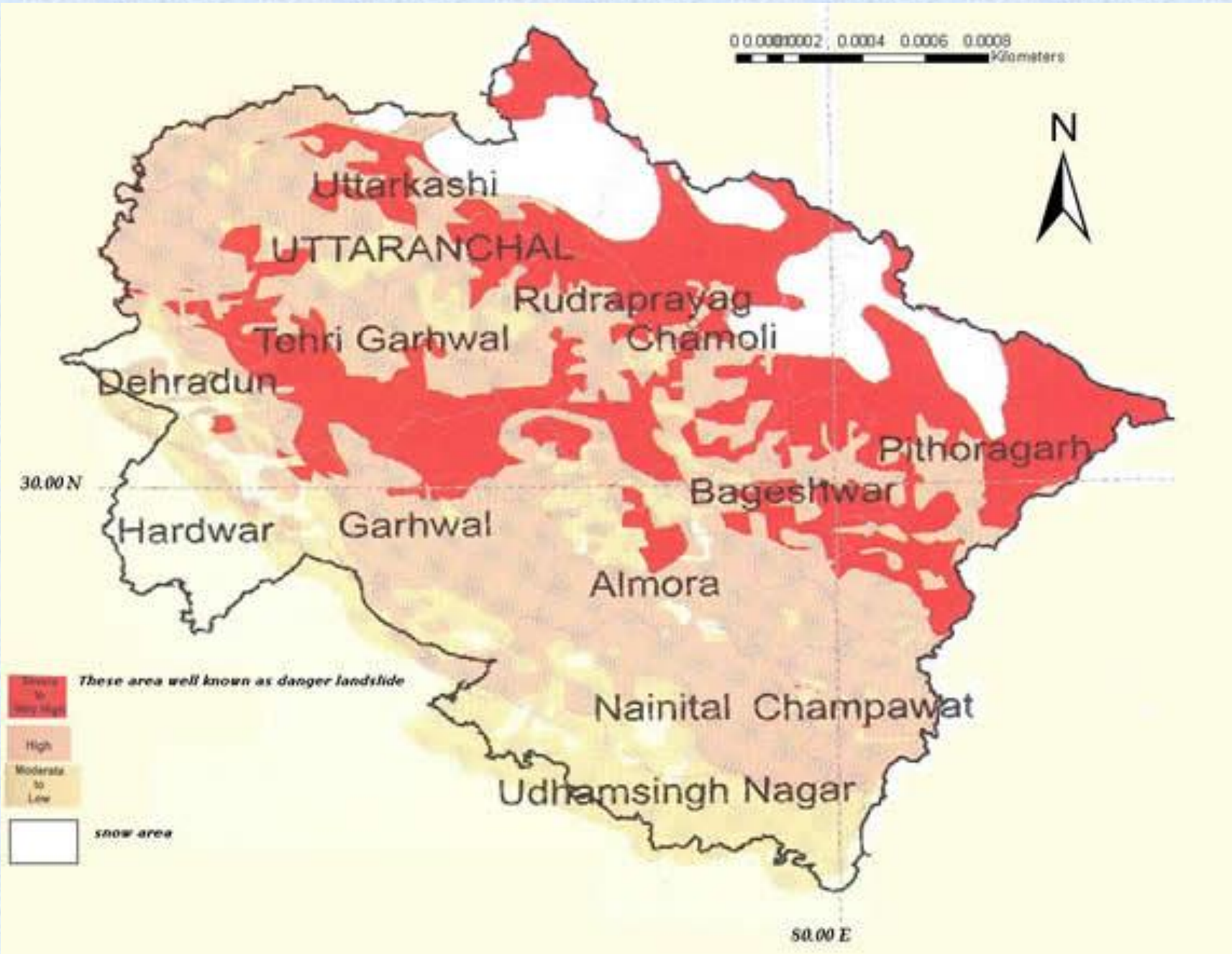
Uttarakhand Earthquake hazard Zonation map

Earthquakes of Uttarakhand

S.No.	Date of Occurrence	Magnitude	Affected Area
1	1 Sept 1803	9.0	Badrinath
2	26 May 1816	7.0	Gangotri
3	25 July 1869	6.0	Nainital
4	28 Oct 1916	7.5	Dharchula
5	28 Oct 1937	8.0	Dehradun
6	27 July 1966	6.3	Kapkot, Dharchula
7	28 August 1968	7.0	Dharchula
8	29 July 1980	6.5	Dharchula
9	20 Oct 1991	6.6	Uttarkashi
10	29 March 1999	6.8	Chamoli
11	1 Feb 2006	5.2	Indo - China Boarder
12	14 March 2006	5.0	Indo - China Boarder
13	27 Oct 2006	3.8	Bageshwar
14	31 March 2006	3.1	Chamoli
15	5 August 2006	5.0	Indo - Nepal Boarder
16	5 Feb 2007	3.5	Indo- Nepal Boarder

S.No.	Date of Occurrence	Magnitude	Affected Area
17	27 March 2007	3.2	Uttarkashi
18	22 July 2007	5.0	Uttarakashi
19	7 Aug 2007	3.5	Uttarakashi
20	3 Nov 2007	2.7	Uttarakashi
21	25 Jan 2008	3.5	Rudraprayag
22	13 Aug 2008	3.6	Bageshwar
23	4 Sept 2008	5.1	Indo – Tibet Boarder
24	18 March 2009	3.3	Uttarakashi
25	15 May 2009	4.5	Chamoli
26	27 Aug 2009	3.9	Uttarakhand
27	21 Sept 2009	4.7	Uttarakashi
28	11 Jan 2010	3.9	Pithoragarh
29	22 Feb 2010	4.7	Bageshwar
30	3 May 2010	3.5	Uttarakhand
31	22 June 2010	4.7	Pithoragarh
32	24 June 2011	3.2	Indo – Nepal Boarder

S.No.	Date of Occurrence	Magnitude	Affected Area
33	4 July 2011	3.4	Chamoli & Almora
34	21 Sept 2011	3.1	Uttarakashi
35	20 Nov 2011	3.2	Uttarakashi
36	9 Feb 2012	5.0	Uttarakashi
37	10 May 2012	3.9	Chamoli
38	1 June 2012	3.7	Chamoli
39	26 Oct 2012	3.5	Chamoli
40	15 Nov 2012	3.02.6	Pithoragarh & Bageshwar
41	30 Jan 2013	2.6	Bageshwar
42	11 Feb 2013	4.3	Uttarakashi
43	17 Feb 2013	3.2	Uttarakashi
44	25 Feb 2013	3.1	Uttarakashi
45	6 March 2013	3.2	Indo – Nepal Boarder
46	24 March 2013	2.9	Indo – Nepal Boerder
47	6 April 2013	4.3	Rudraprayag
48	5 Sept 2013	3.5	Uttarakashi



Landslide Zones of Uttarakhand

Major Landslides in Uttarakhand

Date / Year	Location	Remarks
1867 & 1880	Nainital	Two major landslides on the Sher-ka-Danda Slope in Nainital. The 1880 landslide took place due to rainfall and an earth tremor, destroying building and permanently filled a portion of the Naini Lake
1893	Alaknanda	Floods in the Birehi Ganga river near its confluence with the Alaknanda river triggered landslides causing major blockage of the river with a 10-13 m afflux. A girder bridge was bypassed and another one was destroyed.
1968	Rishi-Ganga	The Rishi-Ganga river in Garhwal was blocked due to landslide at Reni village.
July 1970	Patal Ganga	The Patal Gange (a tributary of the Alaknanda river) was choked and a reservoir was created. The bursting of this choked reservoir resulted in flash floods in the Alaknanda river, triggering many landslide.
1971	Kanauldia gad	A major landslide on the bank of the Kanauldia Gad, a tributary of the Bhagirathi river upstram from Uttarakashi formed a devris cone that impounded water to a height of 30 m. Its breaching caused flash floods downstream.
August 1978	Uttarakashi	The Kanauldia Gad, a tributary joining the Bhagirathi river upstream from Uttarkashi in the Uttarakhand formed a debris cone across the main river, impounding the river to a height of 30m. Its breaching caused flash floods, creating havoc. A 1.5 km long and 20m deep lake was left behind because of the partial failure of the landslide dam.

Date / Year	Location	Remarks
1920, 1952, 1963, 1964, 1965, 1968, 1969, 1970, 1971, 1972	Kaliasaur	Kaliasaur is one of the most persistent and regularly occurring landslides areas, located along the Rishikesh-Badrinath road. Landslides in this region result into frequent road blockage and land damage.
August 1998	Okhimath	Sixty-nine people were killed due to several landslides near Madhmaheshwar valley. The landslides caused huge devastation in villages.
18 August 1998	Malpa, Kali river	More than 210 people were killed. The heap of debris created was about 15m high. The village was
24 Sept. 2003	Varunavat Parvat, Uttarakashi	Incessant rains triggered massive landslide in the area, causing the burial of numerous buildings, hotels, and government offices located at the foot of the hill slopes.
5 July 2014	Badrinath, Chamoli	Sixteen persons killed, 200 odd pilgrims stranded, 800 shopkeepers and 2,300 villagers trapped as cloudburst triggered massive landslides washed away nearly 200m of road on the Joswhimath-Badrinath road cutting off Badrinath area.
29-30 June 2005	Govindghat, Chamoli	A cloudburst/Landslide occurred in which huge quantities of debris and rock boulders were brought down along a seasonal nala. Eleven people were killed and property lost.
6 Sept. 2007	Village Baram/ Sialdhar, Dharchula, Pithoragarh	A landslide due to excessive rainfall resulted in 15 fatalities and loss of livestock.

Date / Year	Location	Remarks
2008	Amru Band	Total 17 people were killed, huge damages to roads in 15 fatalities and loss of livestock.
8 August 2009	Berinag-Munsiyari road, Pithoragarh	Forty three people died due to landslide triggered by cloud burst.
18-21 Sept. 2010	Ganga-Alaknanda Valley	Nearly 220 people died, 170 major and minor roads severely damaged.
14 Sept. 2012	Okhimath, Rudraprayag	Sixty eight people killed in the landslides, which caused extensive damages to the buildings, agricultural lands and roads at several places.

Major Avalanches in Uttarakhand

Date / Year	Location	Remarks
June 2008	Gomukh Glacier near Gangotri, Uttarkashi	One person died and 9 injured
June 2008	Hemkund Shahib, Chamoli	Six died and more than 12 people injured
Sept. 2008	Kalindi-Badrinath track in the Garhwal Himalaya, Chamoli	Three persons were killed and 37 persons were rescued
21 Sept. 2010	Ghastoli, Chamoli	Two army officers were killed
12 June 2013 & 1 July 2013	Kedarkharak, Uttarkashi Uttarkashi District	One person killed, three army personnel injured and 1 killed

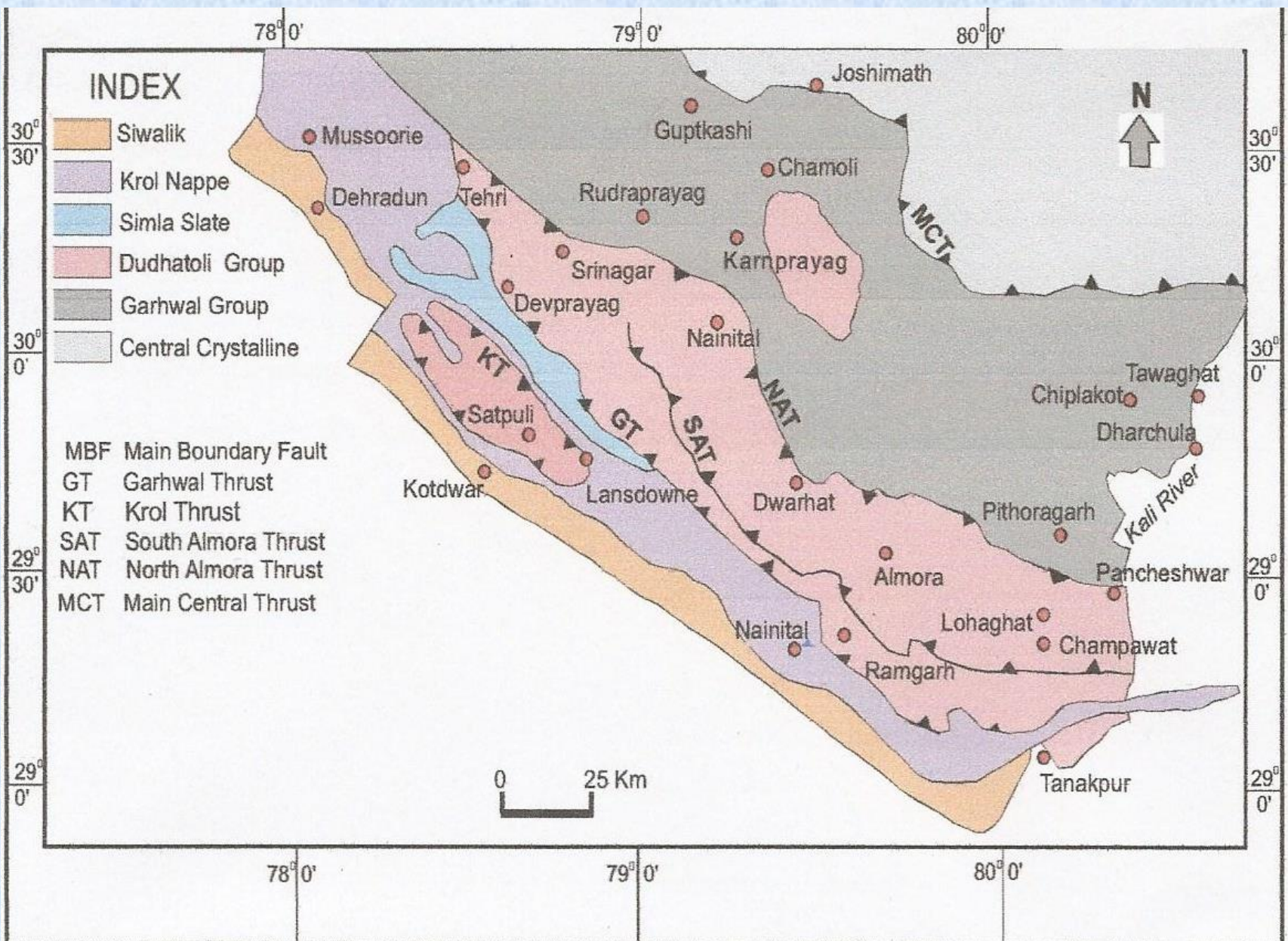
Major Flash flood events in Uttarakhand

Date / Year	Location	Damage
05-09-1989	Karanprayag, Chamoli	Three people died and 2 injured
26-12-1991	Uttarkashi	Three people died
30-07-1994	Chaukhutia, Almora	Four people died
02-08-1997	Near Neelkanth, Haridwar	Eighteen people died
17-07-2001	Near Meykunds, Rudraprayag	Twenty seven people died
20-07-2003	Didihat, Pithoragarh	Four people died
21-05-2004	Kapkot, Bageshwar	Three people died
09-06-2004	Kapkot, Bageshwar	Three people died
21-07-2005	Vijaynagar, Rudraprayag	Four people died
13-08-2007	Didihat, Pithoragarh	Four people died
25-07-2009	Joshimath, Chamoli	Three people died
2009	Munisyari Pithoragarh	Forty three lives lost due to massive cloudburst induced flash flood

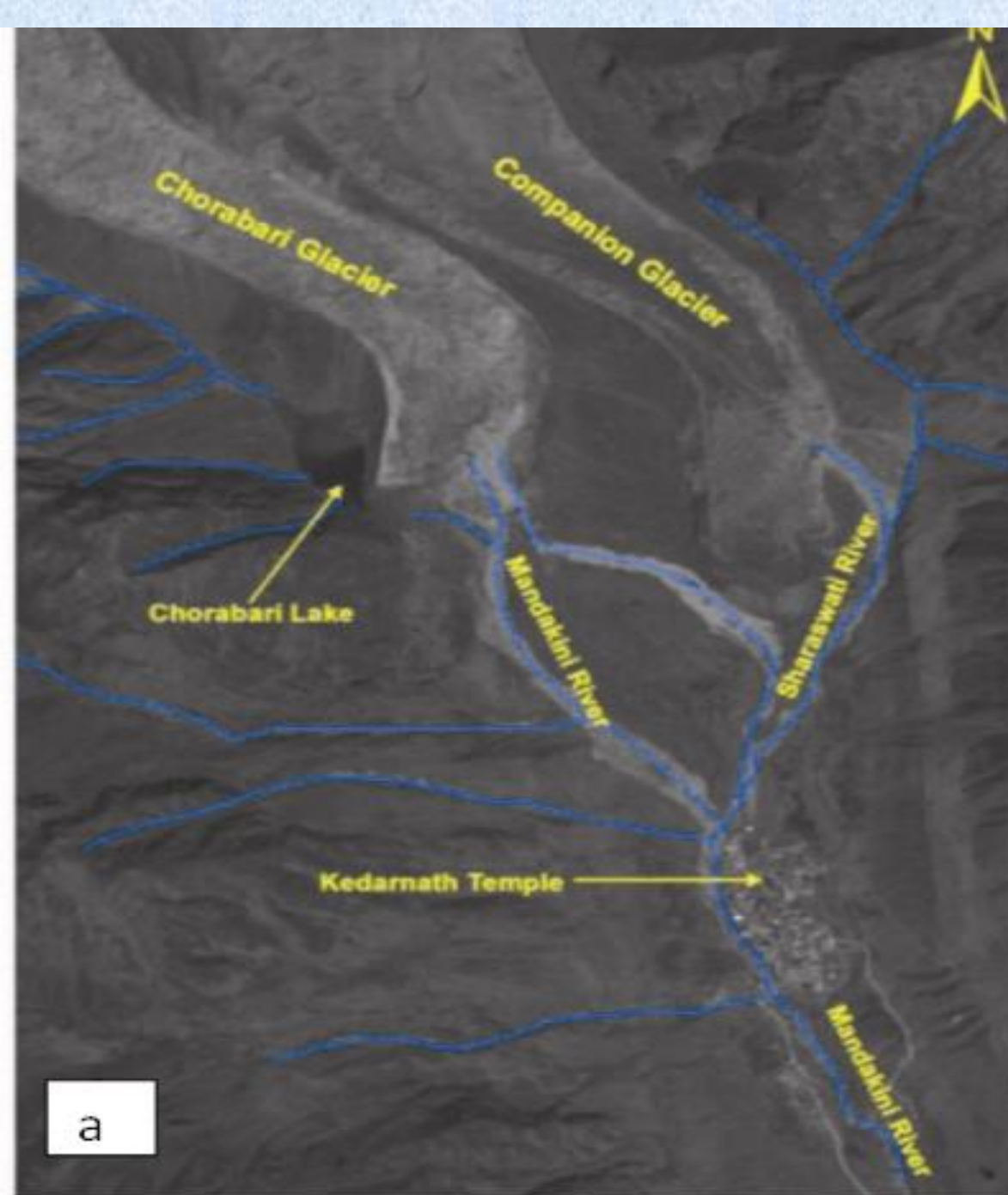
Date / Year	Location	Damage
19-07-2010	Kot. Pauri	Six people died
20-07-2010	Khatima, rudraPur, U.S.Nagar	Three people died
31-07-2010	Dehradun	Five people died and 2 missing
18-08-2010	Dhari, Nainital	Thirteen people died and 3 injured
24-08-2010	Jaspur, U.S.Nagar	Four people died
08-09-2010	Karanprayag, Chamoli	Three people died
11-09-2010	Nyalgarh, Pauri	Three people died
18-09-2010	Belbandgoth, Champawat	Four people died
20-09-2010	Dhari, Nainital	Five people died and 12 injured
22-09-2010	Kot, Pauri	Five people died
06-05-2011	Raipur, Dehradun	Three people died
15-08-2011	Tuneda, Bageshwar	Twenty one people died and 1 injured
03-08-2011	Asi Ganga Valley, Uttarkashi district	The worst affected areas were Gangotri,Sangam Chatti & Bhatwari. About 7,389 people from 1,159 families in 85 villages were affected Nearly 28 people were killed in flash floods and landslides

Major cloudbursts in Uttarakhand

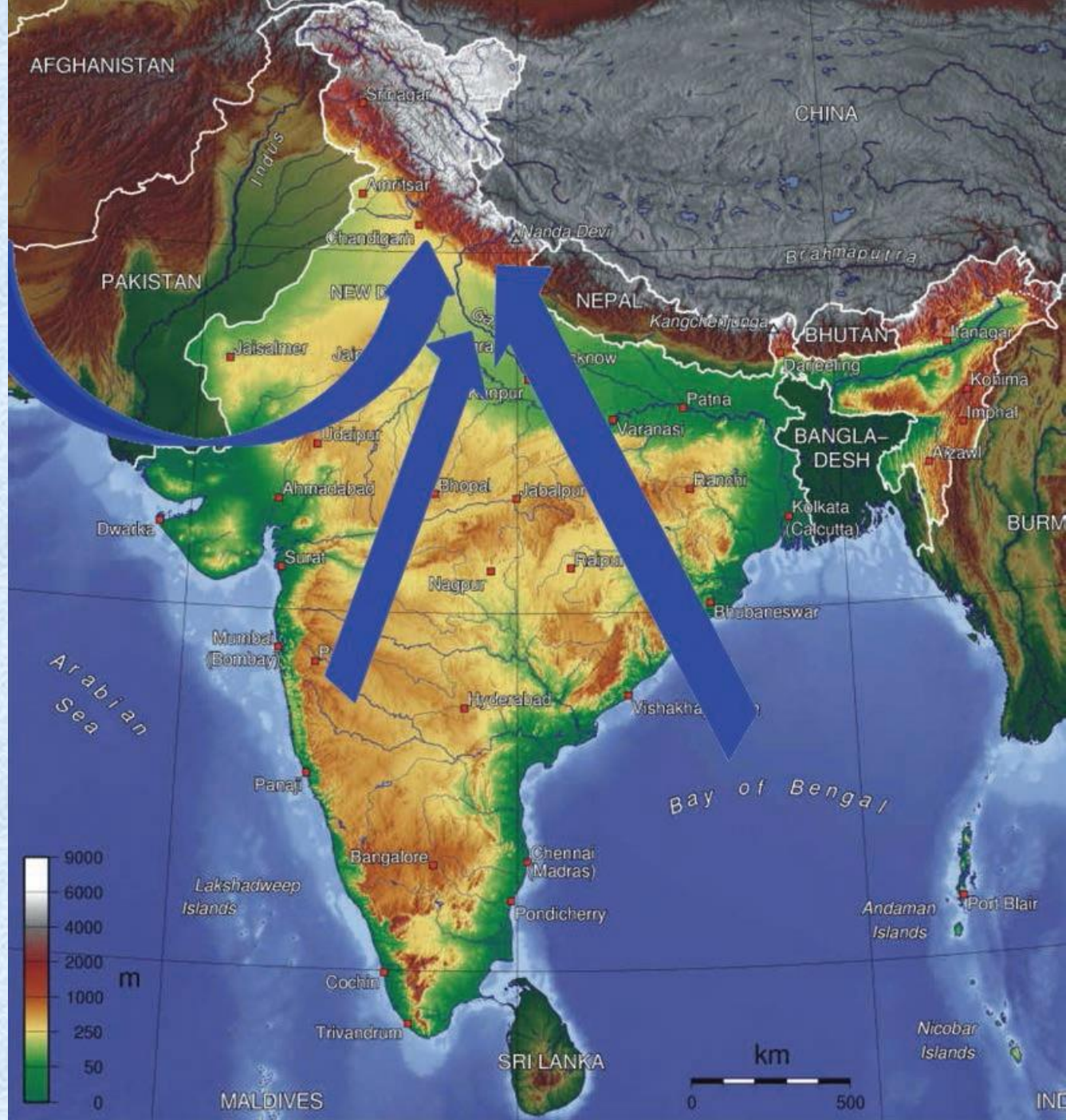
Date / Year	Location	Damages
2002	Khetgaon	Four people died
2004	Ranikhet	One person died
2007	Pithoragarh & Chamoli	Twenty three people died
2008	Pithoragarh	One person died
2009	Munsiyari tehsil, Pithoragarh	Forty three people died
18 August 2010	Kapkot, Bageshwar	Eighteen school children were buried alive and 8 injured due to massive cloudburst
27 July 2010	Almora	Thirty six people died in cloud burst induced flash flood
13 Sept. 2012	Chwanni, Mangoli and Kimana villages of Okhimath block in Rudraprayag	Completely inundated over four villages and eroded two more villages



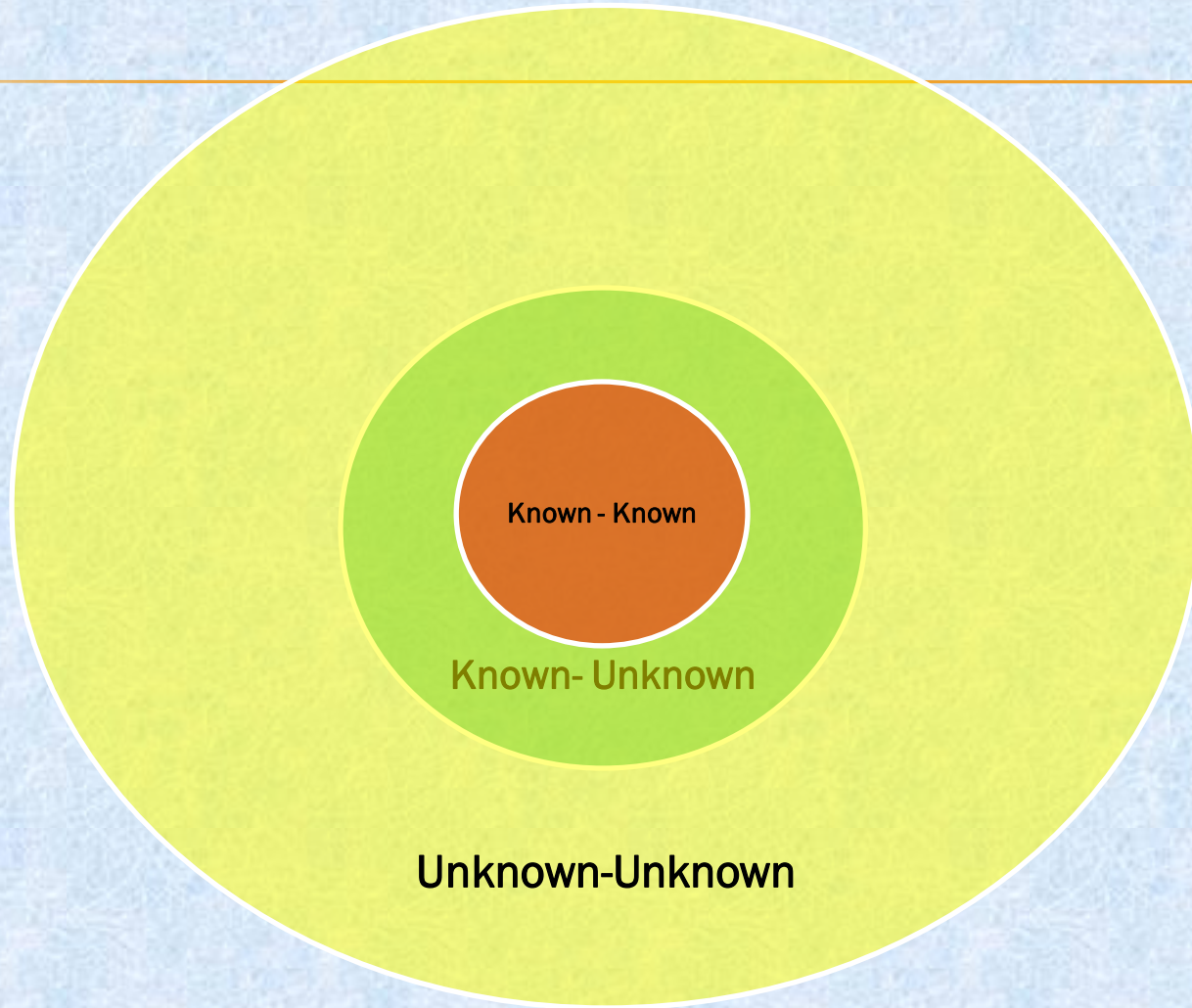
Geotectonic map of Kumaun and Garhwal Himalaya



Satellite view of Kedarnath showing drainage system, Glaciers, lake and township



Map showing fusion of Westerlies and Monsoon clouds in June 2013



Disaster Management & Knowledge Spheres



A Traditional Method of Disaster Risk Management

Basic Requirement for DRR

- ❖ Wisdom
- ❖ Technology
- ❖ Information
- ❖ management

Response Time – How to Reduce

Community Based Disaster Management–

- ❖ Crowded Resource
- ❖ Strengths & Weaknesses

Causes and Consequences – Two poles of a Disaster

Traditional Knowledge – Enormous Data & Informations

Networking of all the Resources

Multiple Dimensions of Disaster Management–

- ❖ Gender Issues
- ❖ Psychosocial Problems
- ❖ Role Media & Social Media
- ❖ Role of Financial Institutions
- ❖ Equity
- ❖ Governance

Introduction:

The Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters

- ❖ Knowledge and Education as one of the main five priorities of action.
- ❖ Targeting School Children and Youth with aim of making people more aware of the threat of hazards.
- ❖ Need and possibility to become better prepared before disaster strike.

National School Safety Programme: NDMA

- ❖ Promote a culture of disaster preparedness in the School.
- ❖ Initiate policy level changes for ensuring safe school environment.
- ❖ Sensitize children and the School Community on disaster preparedness and safety measures.
- ❖ Motivate direct participation of key stakeholders in activities that would help building towards a disaster resilient community.
- ❖ Promote capacity building of officials, teachers and students.
- ❖ Carry out information, Education and Communication (IEC) activities in Schools and associated environment.
- ❖ Implement non-structural mitigation measures in select schools.
- ❖ Carry out demonstrative structural retrofitting in select schools.

Objective of Training Module:

- ❖ To enhance conceptual understanding o various aspects of Disaster Risk Reduction and School Safety from an inclusive perspective
- ❖ To develop competencies of the participants to undertake Disaster Risk Reduction measures in schools (training of the students, components of School Disaster Management Plan, (SDMP), undertake hazard, vulnerability, capacity and risk analysis etc).
- ❖ To enable the participants to develop the School Disaster Management (SDMP)

Facilitation:

Aim of the Facilitator:

- To help the School Community
- To work together
- To analyze problems
- To develop solutions
- To take decisions
- To control the process
- To control the content for substance of the discussions

Task of the Facilitator :

- ❖ Introduce (aim, methods, timing)
- ❖ Stimulate a debate
- ❖ Summarize the discussions
- ❖ Focus the group
- ❖ Lead to a conclusion

During discussions- a facilitator should be able to :

- ❖ Balance task (content) and relationship (process) i.e. achieve the task while maintaining good personal relations.
- ❖ Summarize the discussions.
- ❖ Persuade participants to get actively involved.
- ❖ Conflict analysis and its resolution.
- ❖ Focus the group on the key issues.
- ❖ Lead the group to a conclusion.
- ❖ Finally, resist the temptation to dominate the discussions.

Characteristics of an effective Facilitator:

- ❖ Self-confident (but not overconfident)
- ❖ Enthusiastic and flexible
- ❖ Good humoured and friendly
- ❖ Attentive to feelings

Active Listening:

- ❖ To encourage the speaker to talk freely and openly.
- ❖ To show interest in what is being said.
- ❖ To help him/her to focus on the main points and to say precisely and clearly what he/she is thinking.

How to Use this Training module:

- ❖ Session objectives.
- ❖ Outline of the content.
- ❖ Expected outcome of the session.
- ❖ Detailed session plan including facilitators notes.
- ❖ Session resources.
- ❖ References/further reading.

The module encourages:

- ❖ Discussion on the issues through participatory process
- ❖ Stimulates dialogue and response
- ❖ Stimulates taking action, problem solving and negotiating skills
- ❖ Focuses on experiential learning
- ❖ Situations and problems are presented, discussed and analyzed

Target Audience :

- ❖ Teachers
- ❖ Trainers from DIET
- ❖ Education Officers
- ❖ Officers from: RTE/SSA/SIEMAT

Taking Time to Reflect :

- ❖ What do I know about school safety/disaster management/disaster risk reduction?
- ❖ Why is it important for me to talk about the issue?
- ❖ What do I know about disasters and related vulnerabilities?
- ❖ How would I handle the situation if there were a victim of disaster in the participating group?
- ❖ Am I aware of the government initiatives on school safety?
- ❖ What do I know about National School Safety Programme?

Room Setting and Equipment :

- ❖ Size of the group 25-30
- ❖ U-shaped sitting arrangement
- ❖ DVD projection/LCD
- ❖ White Board
- ❖ Flip chart paper and stand
- ❖ Markers

Evaluation and Validation:

Feedback forms by the participants

Session Objectives :

- ❖ Introduction of the programme
- ❖ Introduction to the concept of school safety
- ❖ Impact of Disaster on School childrens of various age groups
- ❖ Need of Disaster Risk Reduction for safe schools
- ❖ Experience sharing, expectation and outcome

School Safety :

Creation of Safe environment for children safety from large scale hazards-

- ❖ Geological origin
- ❖ Climatic origin
- ❖ Human made risk
- ❖ Pandemics violence
- ❖ Small Scale fires
- ❖ Transportation
- ❖ Environmental threats
- ❖ Other emergencies

The aim of School Safety Activities is – DRR

DRR – includes –

- Mitigation
- Preparedness
- Preparing a Disaster Management Plan

Community Based Disaster Management Plan includes :

- ❖ Raising disaster awareness in school community
- ❖ Hazard, Vulnerability and risk analysis
- ❖ Facility and resource mapping
- ❖ Constitution and training of school disaster management committee and task forces
- ❖ Establishing alert mechanism
- ❖ Preparing school disaster management plan including evacuation and response plan and calendar for preparedness activities
- ❖ Organizing mock drills
- ❖ Psycho-social support for children during disasters
- ❖ Consideration of disability and gender based needs
- ❖ Periodic review and regular updation of SDMP
- ❖ School safety audit.

National School Safety Programme (NSSP)

The vision is :-

- ❖ To initiate policy level change for ensuring safe school environment.
- ❖ To sensitize school community on disaster preparedness and safety measures.
- ❖ To motivate direct participation of key stakeholders in activities that would help building towards a disaster resilient community.
- ❖ To promote capacity building of officials, teachers and students.
- ❖ To carry out Information, Education and Communication (IEC) activities in Schools and associated environment.
- ❖ To implement non-structural mitigation measures in select schools.
- ❖ To carry out demonstrative structural retrofitting in select schools.

Effects of Disaster on School

Physical Impacts	Educational Impacts
It includes direct impacts like :	It includes direct/indirect impacts like :
<ul style="list-style-type: none"> ▪ Loss of life/injuries to school building occupants. ▪ Collapsed/damaged school buildings and other infrastructure. ▪ non.-structural hazards can also cause death and serious injuries etc. 	<ul style="list-style-type: none"> ▪ increased dropout rates. ▪ Loss of trust in education institution. ▪ Decrease in education quality. ▪ Missing educational records etc.
Economic impacts	Psychological impacts
<ul style="list-style-type: none"> ▪ unsafe/damaged schools beyond repair need a level of reinvestment. ▪ loss of income, housing etc. makes it difficult for families to support children continuing their education etc. 	<ul style="list-style-type: none"> ▪ increased stress. ▪ students lose a sense of continuity and their hopes and plans for the future are destroyed etc.

Need for Disaster Risk Reduction :

As per 'Hyogo Framework For Action' Kobe, Hyogo, Japan (Jan2005)

- ❖ Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.
- ❖ Identify, assess and monitor disaster risks and enhance early warning.
 - ❖ Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
- ❖ Reduce the underlying risk factors.
- ❖ Strengthen disaster preparedness of effective response at all levels.

School Safety is Essential because :-

- ❖ Children are our future generation
- ❖ Children can carry information to the society
- ❖ School are key factors to build a culture of disaster prevention
- ❖ School are considered to be center of community activities

School Safety

Basic Concept :

- ❖ Day to Day problems/issues of a child
- ❖ Categorise all the issues under few headings
- ❖ With participatory approach pick up common issues and prioritise them
- ❖ How these issues would be affected or aggravated during any emergencies?
- ❖ Perception of the participants about School and Safety
- ❖ What is National School Safety Programme (NSSP)

Some Recent Disaster which affected School Safety: Participants

School Safety Programme :

Stage I –

- Sensitization
- Formulation of School Disaster Plan
- Constitution of Disaster Management Teams

Stage II–

- Conduct Mock Drill on Specific Disaster

Stage I –

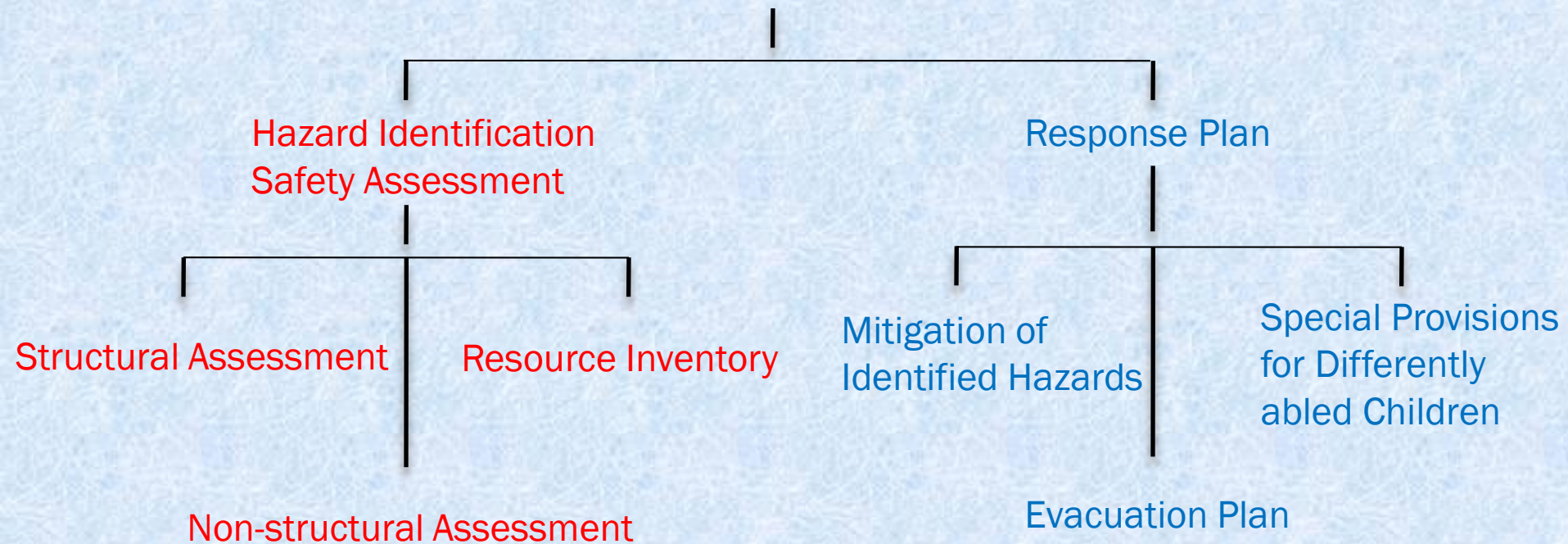
Aim: Ensure safety of the students/teaching/non-teaching staff

Objective:

- Inculcate culture of preparedness
- Examine the Disaster Plan and SOPs of the school
- Evaluate the Disaster Management resource status of the school
- Coordinate the activities of the School Disaster Management Teams
- Institutionalize Disaster Management structure in the School
- Identify gaps and help the school in improving the resource capabilities.

School Disaster Management Planning

Plan Components



Disaster Management Framework for Schools at District Level

A District School Advisory Committee :

- District Collector/ DC
- DEO
- Coordinator BRC
- Coordinator CRC
- Representative from State Education Board/CBSE/ICSE
- Principals of Schools
- Municipal Commissioner
- Vice Chairman Development Authority
- Municipal Building Junior Engineer
- Structural Engineer
- Architect
- Town Planner
- Police
- Fire Services
- Civil Defence
- Red Cross
- 108- Ambulance/Ambulance Services
- NGOs
- Youth Clubs
- Ward Representative
- Volunteer Clubs- Lions/Rotary etc.

School Preparedness and Response Plan :

(I) School Disaster Management Committee

- Chairman – Principal
- Members –
 - Vice Principal
 - Zonal Education Officer
 - President, Parent Teacher Association
 - 2 Parents (One Lady)
 - 3 Students
 - Representative from DDMA
 - SHO of Fire Station
 - SHO of nearest Police Station
 - Medical Officer Health Department
 - Warden Civil Defence
 - School Administrative Officer
 - Disaster Management Expert
 - Representative of RWA
 - School Doctor
 - Any Other

(II) Role & Responsibilities:

- Help in preparation & evaluation of Disaster Plan
- Look into structural safety of School
- Workout financial aspects of preparedness & mitigation measures
- Arrange for conduct of mock exercises as per need
- Help coordinating various groups and teams

Hazard Identification & Safety Assessment :

(I) Identification of Potential Structural Hazards

- Assess School Safety from Natural and Manmade disasters
- Consult structural engineer/architect/DM expert for getting building assessed and retrofitted
- Review the historical background of disasters happened and lessons learnt

(II) Identification of Potential Non Structural Hazards

Inside School -

- Stand by arrangement in case of sudden power failure
- Halls or stairways cluttered with debris
- Cabinets/almirahs in path ways/hall ways
- Suspended ceiling
- Bricks/Glasses/Debris piled up outside
- Hanging pendent light fixtures
- Tall book cases not bolted to walls
- TVs not anchored
- Chemistry Labs not well secured
- Area having flammable liquids
- Differently abled children-arrangement for evacuation
- Main switch boards and hanging wires
- Number of hydrants/taps in the school

Outside School –

- Power lines over school premises
- Leaning and weak rooted trees
- Covered walk ways
- School boundary with iron fencing

Resource Inventory :

- Skilled human resources (Search & Rescue team, First Aid Team, Evacuation Team)
- Stretchers/Fire extinguishers/ Communication System/ First Aid Box/Life Saving Medicines etc.
- Register to note down the students/teachers with chronic ailments with medication prescription
- Nearest hospital and telephone number of emergency
- Telephone numbers of district & State Disaster Management Control Room/ Nearest Police Station/Fire Station/Ambulance Services/ School doctor/100 Police Control/ 101 Fire Services
- Earmark area for establishing control room/assembly areas/doors & Gates to be opened in case of emergency

School Disaster Management Plan:

- Constitution of School Disaster Management Committee
- Physical Location on diagram of – class rooms/labs/staff rooms/play ground/open area
- Resource Mapping – Stretchers/Fire Extinguishers/ladders/ropes/torches/first aid box/communication systems/temporary shelters/control room location
- Maps showing- nearest hospital/PHC/private clinics/medical stores/police station/fire station/red cross/district Disaster Management control room
- Safe Places and Evacuation route chart – sketch should be displayed in each floor
- Formation of Disaster Teams
- Emergency Response Plan
- Conduct of mock exercises and updating Disaster Management plan

Disaster Management Teams :

- (i) Disaster Awareness Team
- (ii) Warning and Information Dissemination Team

Disaster Response Group :

- (i) Evacuation Team
- (ii) Search & Rescue Teams
- (iii) First Aid Team
- (iv) Fire Safety Team
- (v) Bus Safety Team

THANK YOU