



सत्यमेव जयते

# INDIA

# भारत गणराज्य

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16/01/2024

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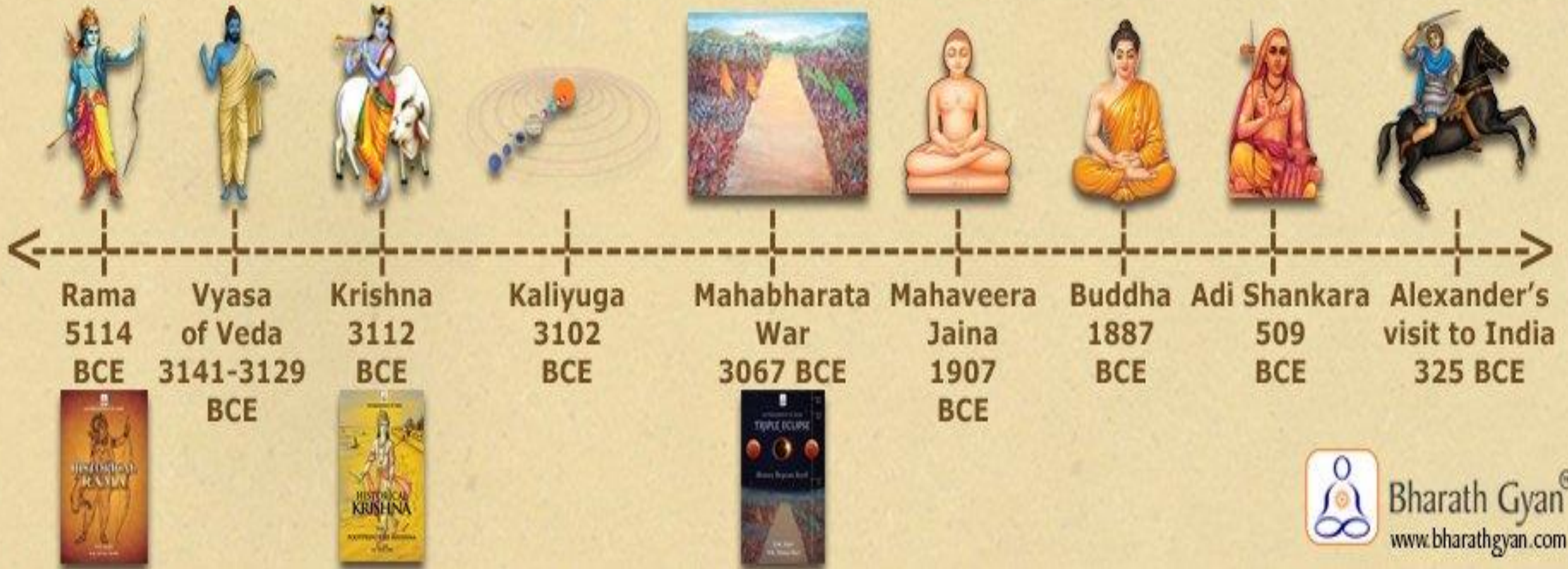
1. Physical Location of India On World map
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3. General Information About India
4. Vulnerability profile of India
5. History of disaster in India
6. Evolution of DRM
7. New Initiatives by Govt. of India in DRR
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# TIME LINE OF ANCIENT INDIAN HISTORY



- Sangam Age (300 BC – 300 AD)
- Gupta Empire (300AD – 800AD)

## Medieval India (AD 700 – AD 1857)

- Delhi Sultanate (1206 AD – 1526 AD)
- Mughals (AD 1526 – AD 1857)

## Modern India (AD 1857-1991)



# General Information: 1441 million



**Name: The Republic of India**



**Capital: New Delhi**



**Continent: Asia**



**Location: 28°36.8'N, 77°12.5'E**

**32,87,263 sq. Km**



**Other Names: Hindustan,  
Bharat**



**States: 28, Union Territories: 8**



**Neighboring Countries:**

**China, Nepal, Bangladesh, Sri Lanka,  
Pakistan, Myanmar, Bhutan, Afghanistan,  
Maldives**



**Official Languages:**

**Hindi and English**



**Head of State: President**



**Head of Government: Prime  
Minister**



## Administrative Divisions



## Power Separation



Golden Temple

# Vulnerability Profile of India



2021

28 States and 8 UTs in the country, 27 are disaster-prone.



**EARTHQUAKE**

58.6% of the landmass is prone.



Floods and river erosion.  
40 million hectares (12% of land) are prone



7,516 km long coastline  
5,700 km is prone to cyclones and tsunamis.



Drought

68% of the cultivable area is vulnerable



# Geography

## Geologically,

India is grouped into three major groups:

1. **The Himalayas and their associated group of mountains**
2. **The Indo-Ganga Plains**
3. **The Peninsular Shield**

Besides these, the coastal plains of Western and Eastern ghats and the Andaman and Nicobar & Lakshadweep islands can be considered minor groups.

## Climatologically

India is considered to be a tropical country with four seasons as designated by the India Meteorological Department.

1. **Winter (December-February)**
2. **Summer (March-June)**
3. **South-west monsoon season (June-September)**
4. **Post monsoon season/ Autumn (October-November)**

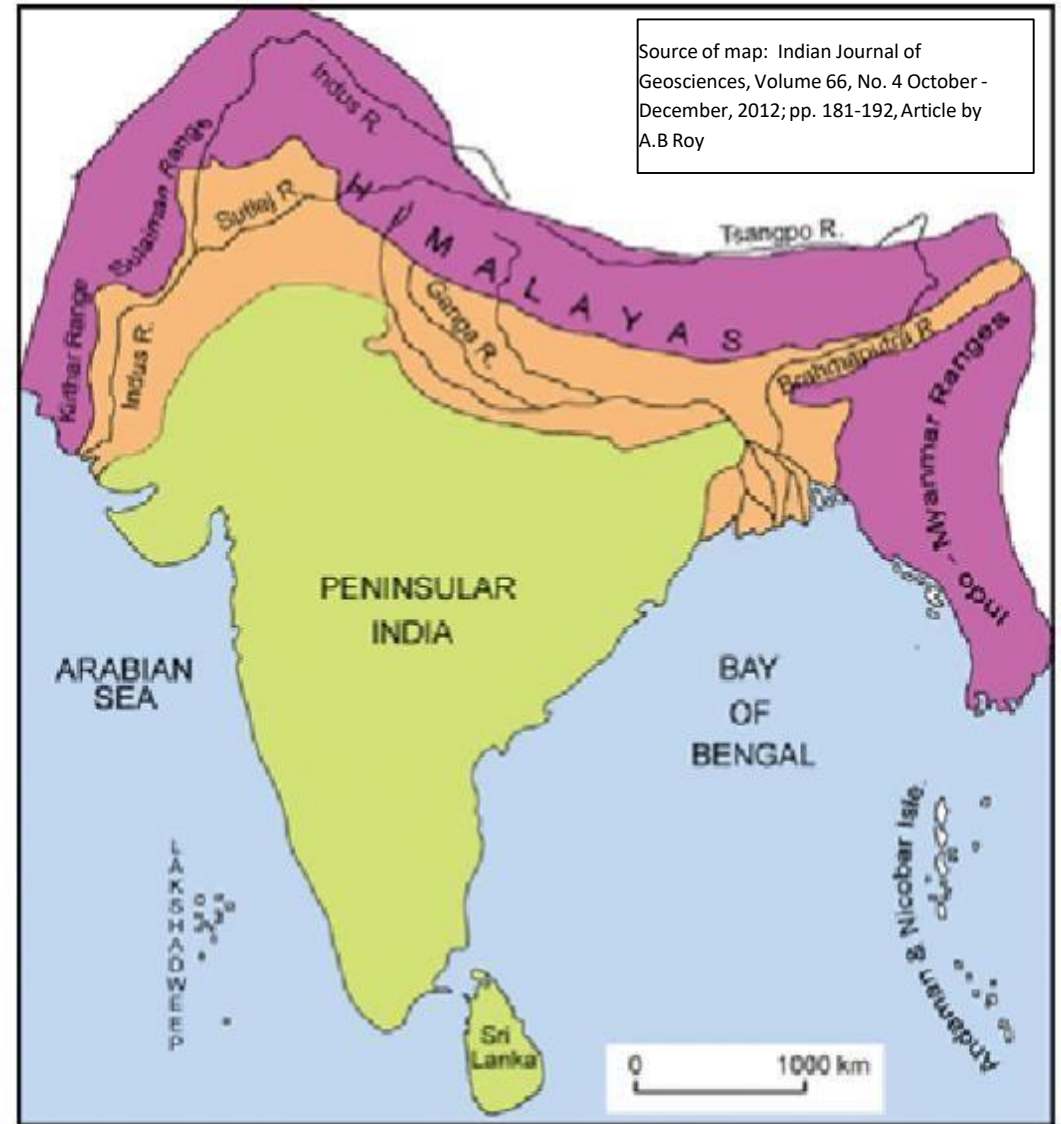


Figure: Geology of India



30,000 were injured and approximately 10,000 were killed.

**Latur Earthquake, 1993**

More than 20,000 deaths

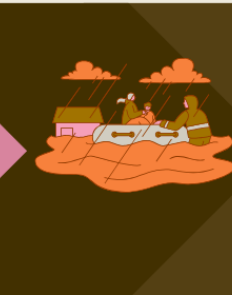
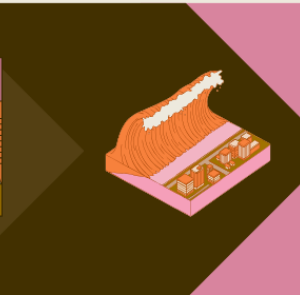
**Gujarat Earthquake, 2001**

more than 6,000 deaths, stranded around 100,000 people

**Uttarakhand Flash Floods, 2013**

373 people died, and over 2,80,679 people were displaced

**Kerala Floods, 2018**



**The Great Famine, 1876-78**

**Odisha Super Cyclone, 1999**

9,885 people died, and 13 million affected

**Indian Ocean Tsunami, 2004**

10,749 deaths, 5,640 missing people, and thousands of homeless people

**Jammu and Kashmir Floods, 2014**

277 Deaths & estimated loss of 5000 Crore loss

**Maharashtra, Kerala, Tamil Nadu Floods, 2021**

More than 500 Died and thousands are displaced

# Evolution of DRM

**The Super cyclone in Orissa of 1999 and the Bhuj earthquake in Gujarat in 2001**

Underscored the need to adopt a multi-dimensional endeavour involving diverse scientific, engineering, financial and social processes; the need to adopt multi-disciplinary and multi sectoral approach and incorporation of risk reduction in the developmental plans and strategies.

**Disaster Management shifted from Ministry of Agriculture to Ministry of Home Affairs in 2002**

**Disaster Management Act, 2005**

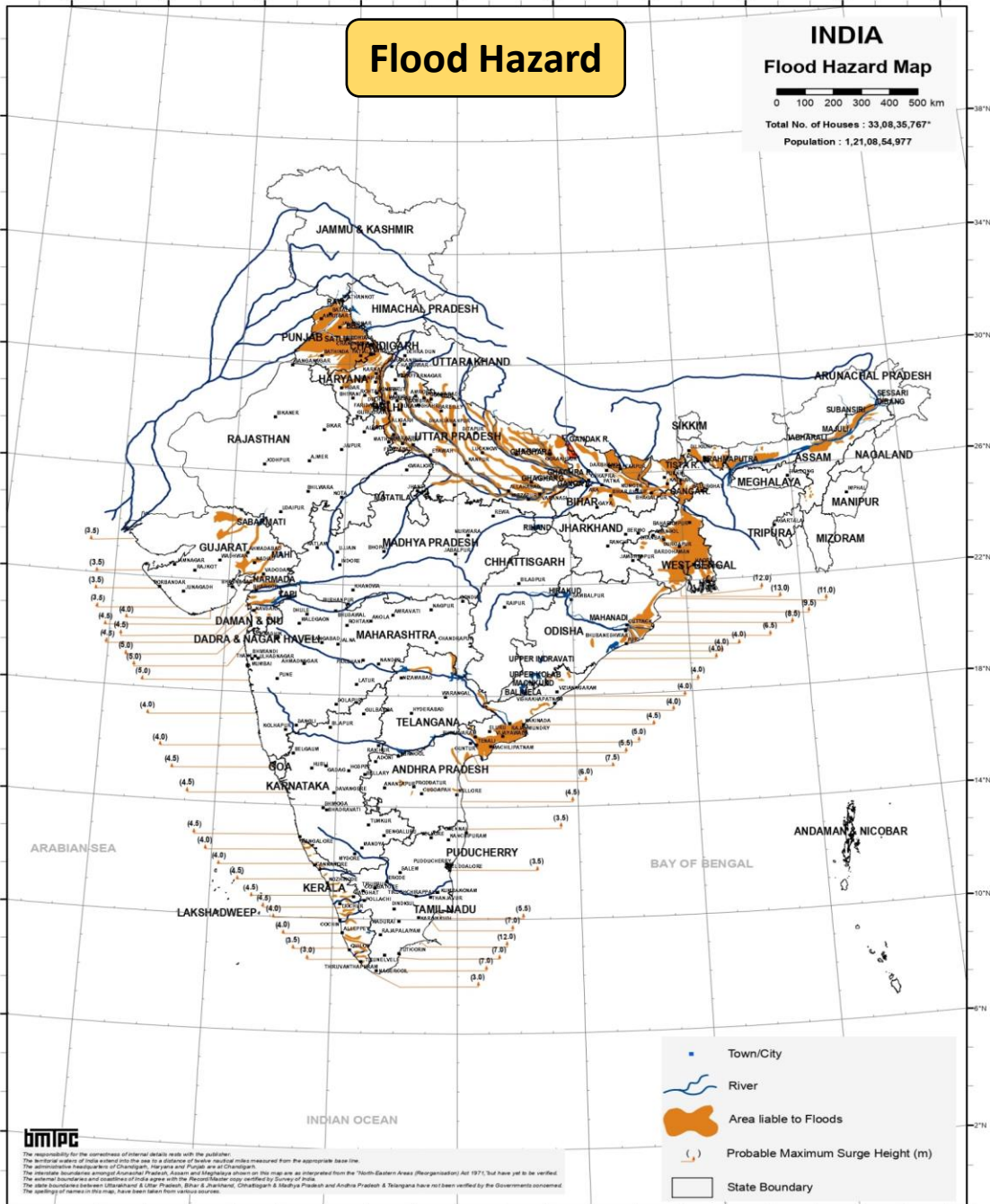
**Constitution of National Disaster Management Authority in 2005 with Prime Minister of India as Chairman**

**National Executive Committee (NEC) in 2005 with Home Secretary as Chairperson**

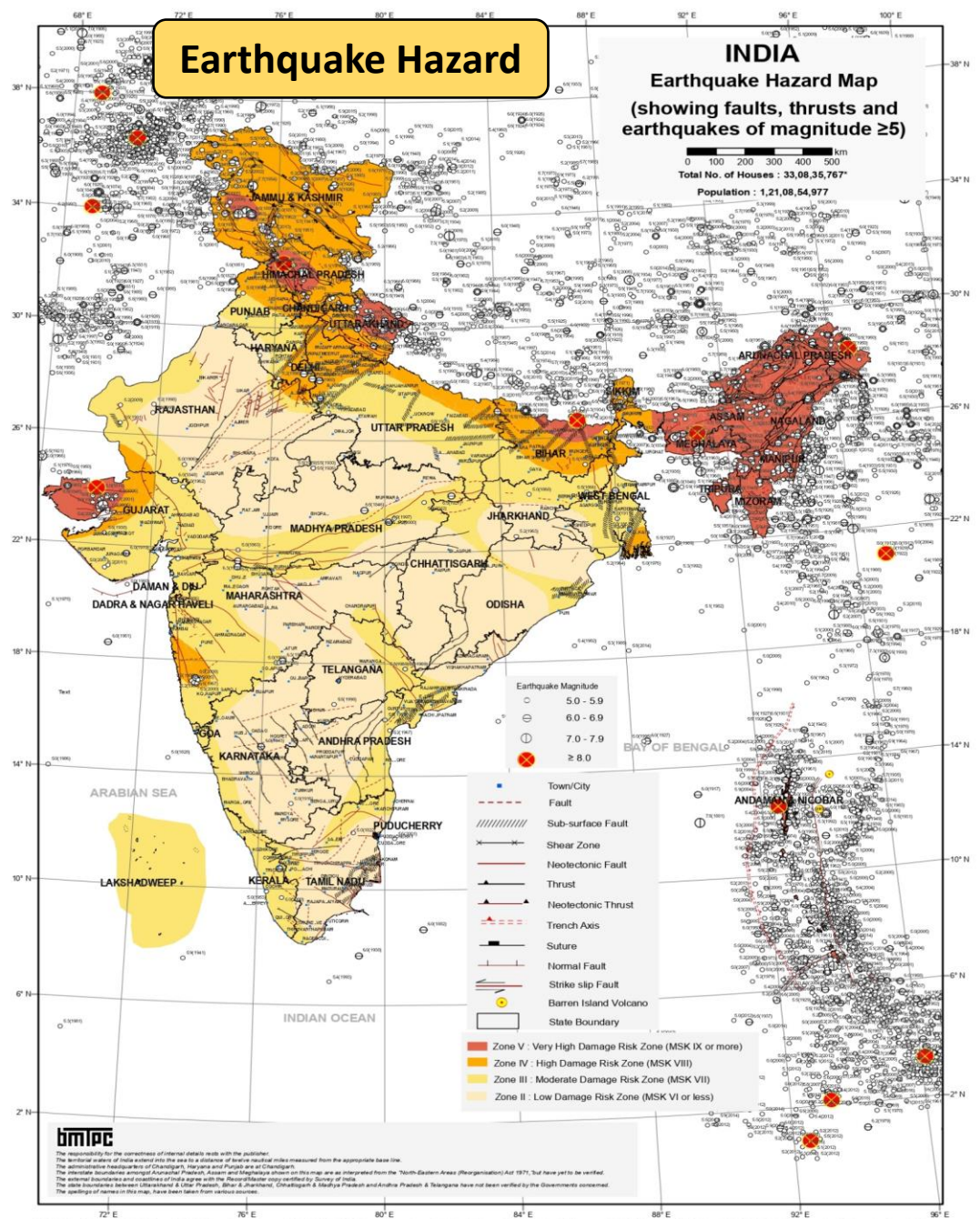
**Setting up of SDMA and DDMA under DM Act 2005**



# Flood Hazard



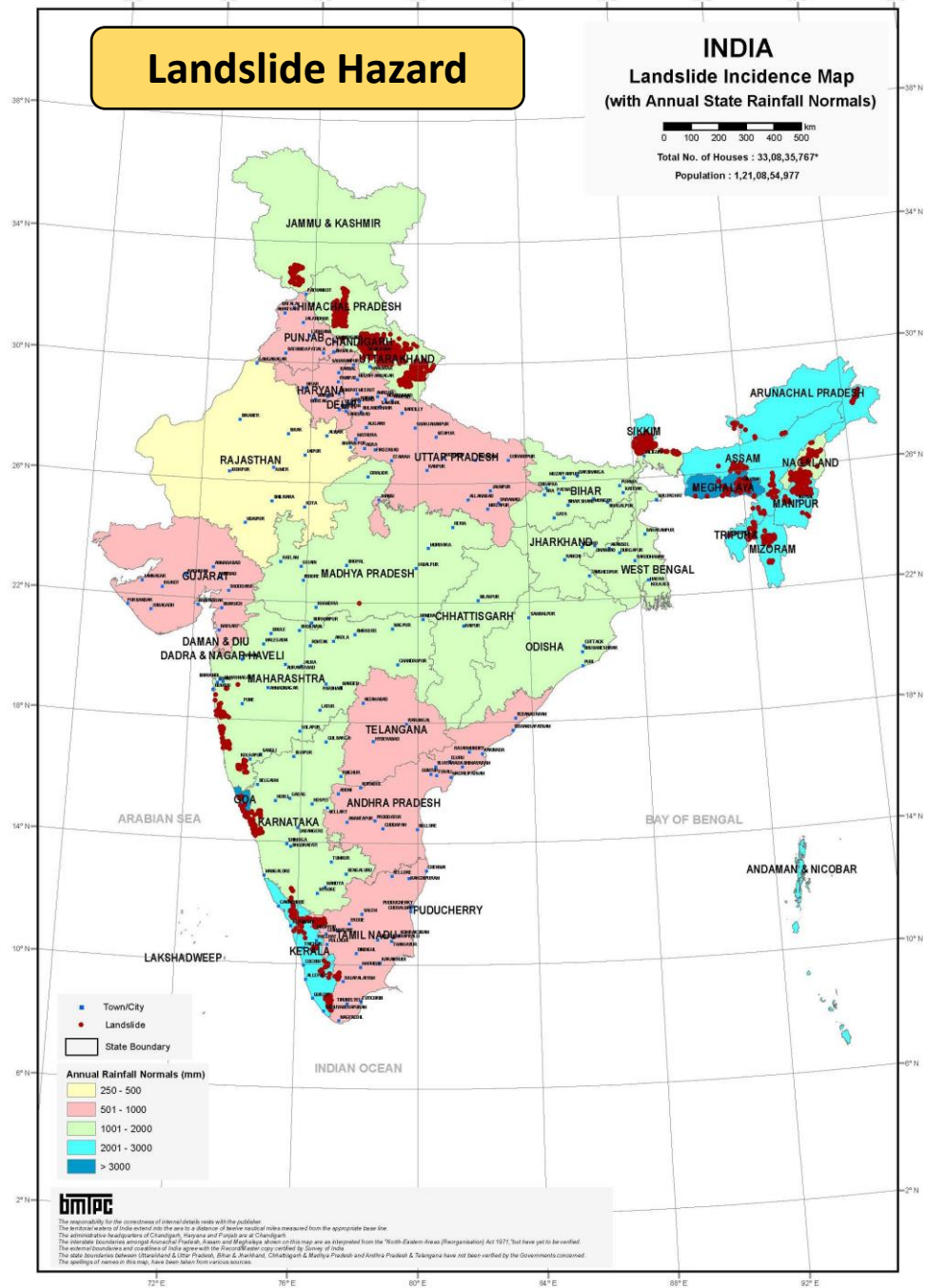
# Earthquake Hazard



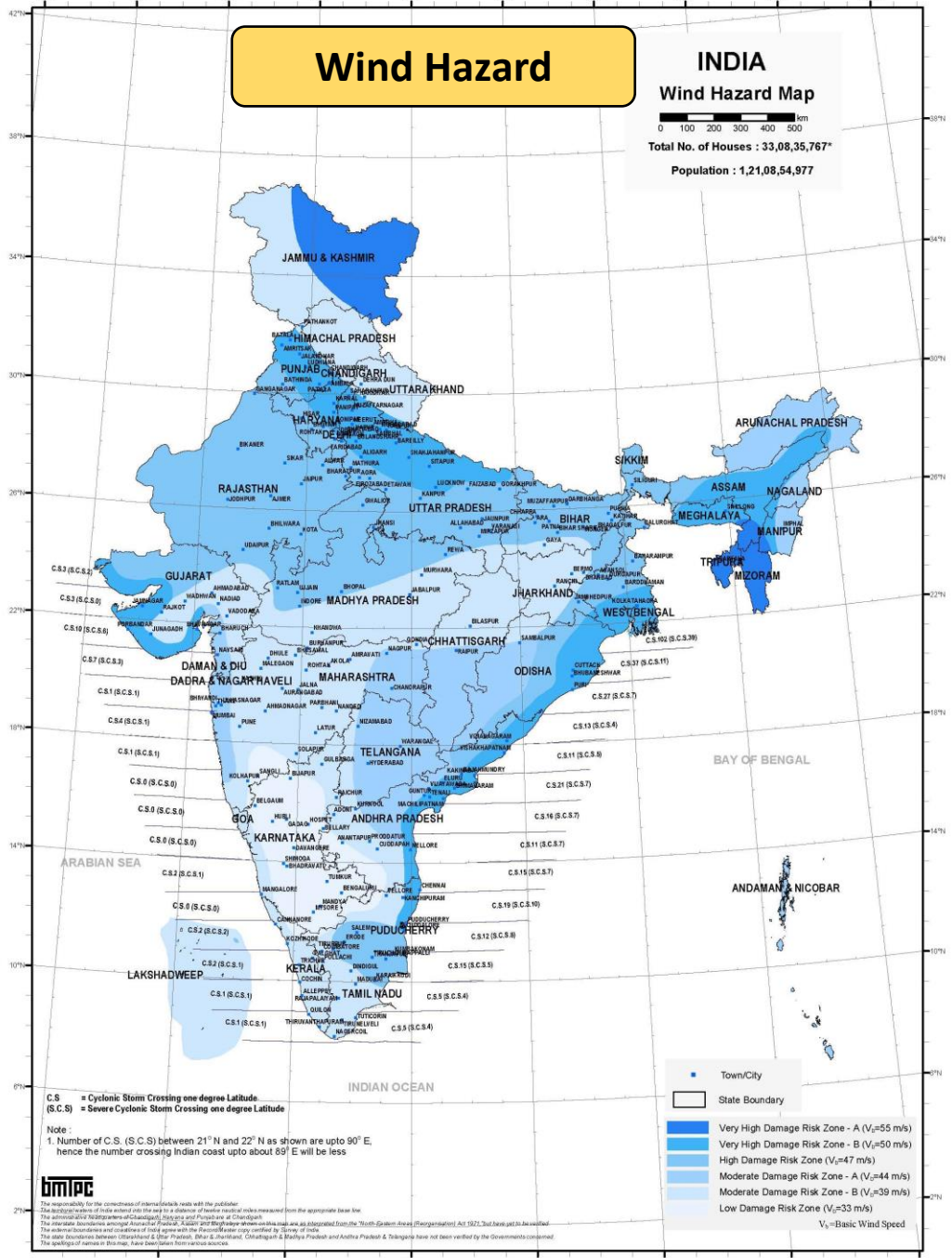
BMTPC : Vulnerability Atlas - 3rd Edition; Peer Group, MoHUA, GOI; Map is Based on digitised data of SOI, GOI; Census of India 2011; Flood Atlas (1987), Task Force Report (2004), C.W.C., G.O.I. Houses/Population as per Census 2011; \* Houses including vacant & locked houses. Disclaimer: The maps are solely for thematic presentation.

BMTPC : Vulnerability Atlas - 3rd Edition; Peer Group, MoHUA, GOI; Map is Based on digitised data of SOI, Seismic Zones of India Map IS 1893 (Part I), 2002; BIS; Earthquake Epicentre from IMD, Seismotectonic Atlas of India and its Environs, GSI; Houses/Population as per Census 2011; \* Houses including vacant & locked houses. Disclaimer: The maps are solely for thematic presentation.





BMTPC: Vulnerability Atlas - 3rd Edition; Peer Group, MoHUA, GOI. Map is Based on digitised data of SOI; Landslide Incidence data GSI; Annual Rainfall data IMD. Houses/Population as per Census 2011; \* Houses including vacant & locked houses. Disclaimer: The maps are solely for thematic presentation.

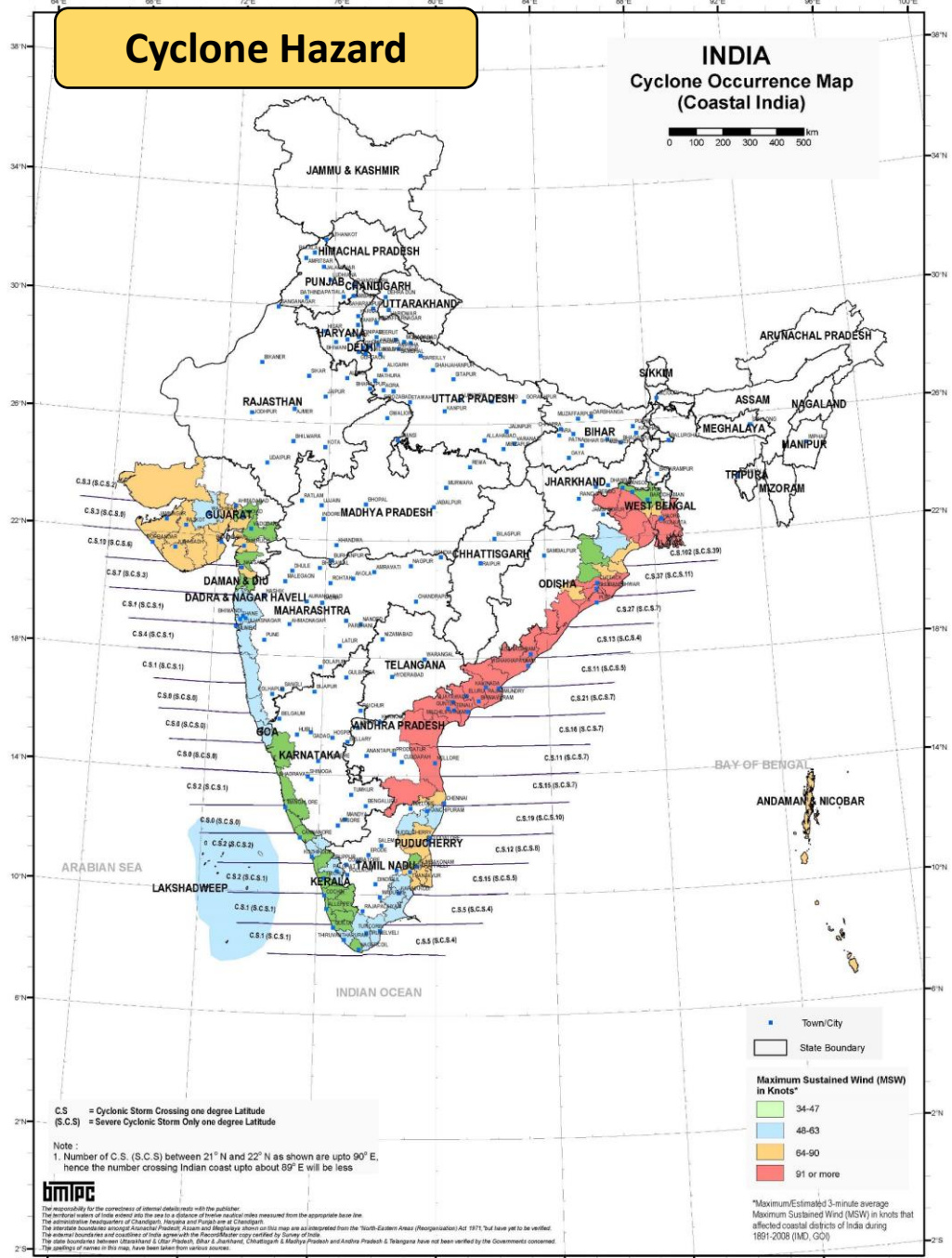
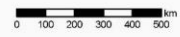


BMTPC: Vulnerability Atlas- 3rd Edition; Peer Group, MoHUA, GOI. Map is Based on digitised data of SOI, GOI; Basic Wind Speed Map National Building Code: 2016; Cyclone Data, 1891-2015, IMD, GOI. Houses/Population as per Census 2011; \*Houses including vacant & locked houses. Disclaimer: The maps are solely for thematic presentation.



# Cyclone Hazard

## INDIA Cyclone Occurrence Map (Coastal India)



C.S. = Cyclonic Storm Crossing one degree Latitude  
 (S.C.S) = Severe Cyclonic Storm Only one degree Latitude

Note:  
 1. Number of C.S. (S.C.S) between 21° N and 22° N as shown are upto 90° E, hence the number crossing Indian coast upto about 89° E will be less



The responsibility for the correctness of internal details rests with the publisher.  
 The horizontal system of lines shown on this map are based on the datum of the Indian Survey of India.  
 The sea-level boundaries shown on this map are as interpreted from the North-Eastern Area (Registration) Act 1971, but have yet to be verified.  
 The names of districts and counties of India shown on this map are as per the Revised Districts only verified by Survey of India.  
 The state boundaries between Uttar Pradesh & Other Pradesh, Bihar & Jharkhand, Chhattisgarh & Madhya Pradesh and Andhra Pradesh & Telangana have not been verified by the Governments concerned.  
 The spelling of names in this map, have been taken from various sources.

■ Town/City  
 State Boundary  
**Maximum Sustained Wind (MSW) in Knots\***  
 34-47  
 48-63  
 64-90  
 91 or more

\*Maximum/Estimated 3-minute average Maximum Sustained Wind (MSW) in knots that affected coastal districts of India during 1851-2008 (IMD, GOI)

# New Initiatives by the Government of India in Disaster Management (2021-2024)

## 1. National Plan for Disaster Management (NPDM) 2021-2025:

- Launched in 2021,
- It focuses on five key areas: risk assessment, early warning systems, disaster preparedness, capacity building, and effective response and recovery mechanisms.

## 2. Aapda Mitra Scheme, School Safety Schemes:

- Launched in 2021, These volunteers, receive training in basic rescue, first aid, and disaster response skills, enabling them to assist communities during emergencies.

## 3. Sustainable Reduction in Disaster Risk in Multi-Hazard Districts:

- This project, initiated in 2021, targets ten highly vulnerable districts across India.
- It aims to build local capacity for disaster risk reduction through comprehensive plans, awareness campaigns, community-based training, and formation of local disaster management teams.

## 4. Strengthening Fire Services:

- A budget of Rs. 5,000 crore has been allocated for modernizing and expanding fire services across Indian states.
- This includes upgrading equipment, infrastructure, and training for firefighters to enhance their response capabilities.



# New Initiatives (2021-2024)

## 5. Reducing Urban Flood Risk in Seven Metros:

- A Rs. 2,500 crore project focuses on mitigating urban flooding risks in Mumbai, Chennai, Kolkata, Bengaluru, Hyderabad, Ahmedabad, and Pune.
- This involves drainage system improvements, flood forecasting systems, and infrastructure development to better manage stormwater.

## 6. National Landslide Risk Mitigation Project:

- With a budget of Rs. 825 crore, this project targets landslide-prone areas in 17 states and union territories.
- It focuses on landslide hazard mapping, early warning systems, slope stabilization measures, and community awareness programs.

## 7. International Cooperation:

- India actively participates in international disaster management initiatives, such as the SCO Agreement on Emergency Relief Cooperation and the BRICS Ministerial Meeting on Disaster Management.
- This fosters knowledge sharing, best practice exchange, and collaborative efforts to address global disaster challenges.

8. **CDRI:** It promotes rapid development of resilient infrastructure to respond to the Sustainable Development Goals' imperatives of expanding universal access to basic services, enabling prosperity and decent work.

# New Initiatives (2021-2024)

## 8. Technological Advancements:

### 1. **SACHET:**

This National Disaster Alert Portal by the NDMA provides comprehensive alerts for all types of disasters across India, in 12 languages, empowering individuals with location-specific information.

### 2. **NDMIS:**

The National Disaster Management Information System (NDMIS) online application, to capture disaster damages/losses effectively and for monitoring of funds disbursement under State Disaster Response Fund (SDRF) and National Disaster Response Fund (NDRF) to States

*The online System will track the impacts of hazards for the entire country upto district level.*

### 3. **Emergency Response Support System**

Emergency Response Support System (ERSS) is the vision of Govt. of India to launch an integrated emergency response system with a single emergency number 112, to address different emergencies of citizens.

### 4. **Flood Hazard Atlas (by National Remote Sensing Center)**



# Fund Allocations

**15th Finance Commission FY 2021-22 to 25-26  
(Five years)**

- State Disaster Risk Management Fund (SDRMF)
  - **Rs. 1,60,153 crore** – SDRF (80%): Rs. 1,28,122 crore; **SDMF(20%) Rs. 32,031.**
- National Disaster Risk Management Fund (NDRMF)
  - **Rs. 68,463 crore** – NDRF (80%): Rs. 54,770 crore; **NDMF(20%): Rs. 13,693 crore.**

National/ State Disaster Response Fund Distribution (80%)

Response & Relief	40%
Recovery & Reconstruction	30%
Preparedness & capacity building	10%

20% of SDRMF can be use for mitigation activities

# Research Plan:- Integration of DRR into Urban Planning and Infrastructure Development



**Identify potential areas where Japan integrate DRR into urban planning and infrastructure development processes.**



**Explore and document best practices and successful case studies that demonstrate effective integration of DRR measures in Japan.**



**Develop actionable recommendations for policymakers, practitioners, and stakeholders to enhance the integration of DRR principles and strategies into urban planning and infrastructure development practices.**



**Identify the gaps in the preparedness for disaster response in India.**



# Namaste

“INDIA is the cradle of the human race, the birthplace of human speech, the mother of history, the grandmother of legends and the great grandmother of traditions . Our most valuable and most instructive materials in the history of man are treasured up in India only.”

Mark Twain



Incredible India







# Mitigation Efforts

- Building resilient infrastructure
- Early warning systems
- Education and awareness programs
- Capacity building
- Photo by Anton Uniqueton  
<https://www.pexels.com/@uniqueton>

## **Best Places of Indian Cultural Heritage**

• Individual slides for each of the 15 places mentioned in the article, including:

- Amritsar: The Golden City In Punjab
- Lucknow: The City Of The Nawabs
- Delhi: A Potpourri Of Different Cultures
- Rajasthan: The Land Of Rajputs
- Rann of Kutch: The Land Of The White Desert
- Khajuraho: The Land Of The Kamasutra Temples
- Kolkata: The City Of Joy
- Mysore: The Palace City Of India
- Hyderabad: The City Of Nizams
- Kerala: God's Own Country
- Hampi: Ancient Kingdom Of Vijaynagar
- Pattadakal: A Group Of Monuments
- Goa: Land Of Beaches And Churches
- Bhimbetka: The Ancient Rock Shelters
- Chola Temples: Architectural Heritage Of Chola Empire