



## India Needs an Updated Flood Map

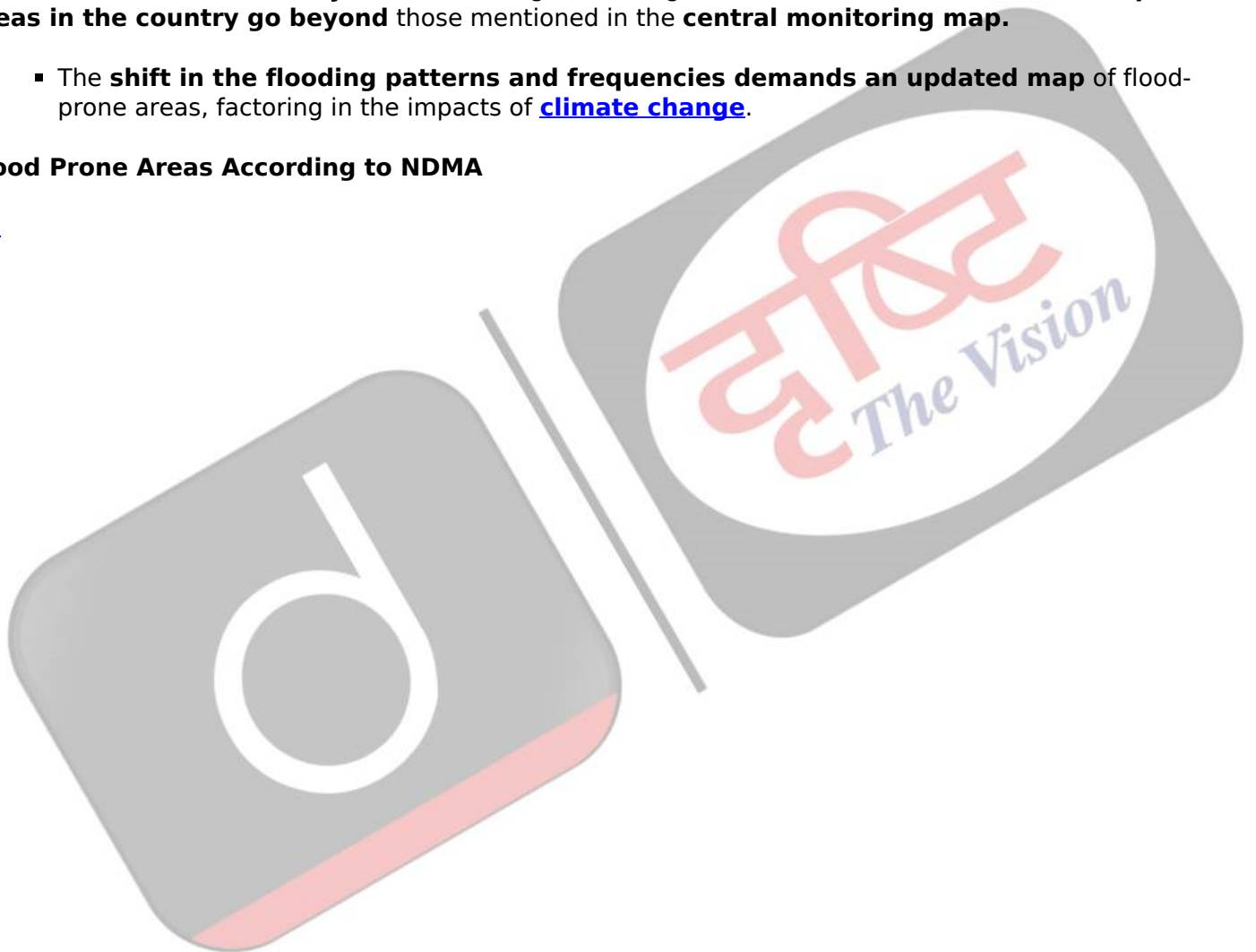
### Why in News

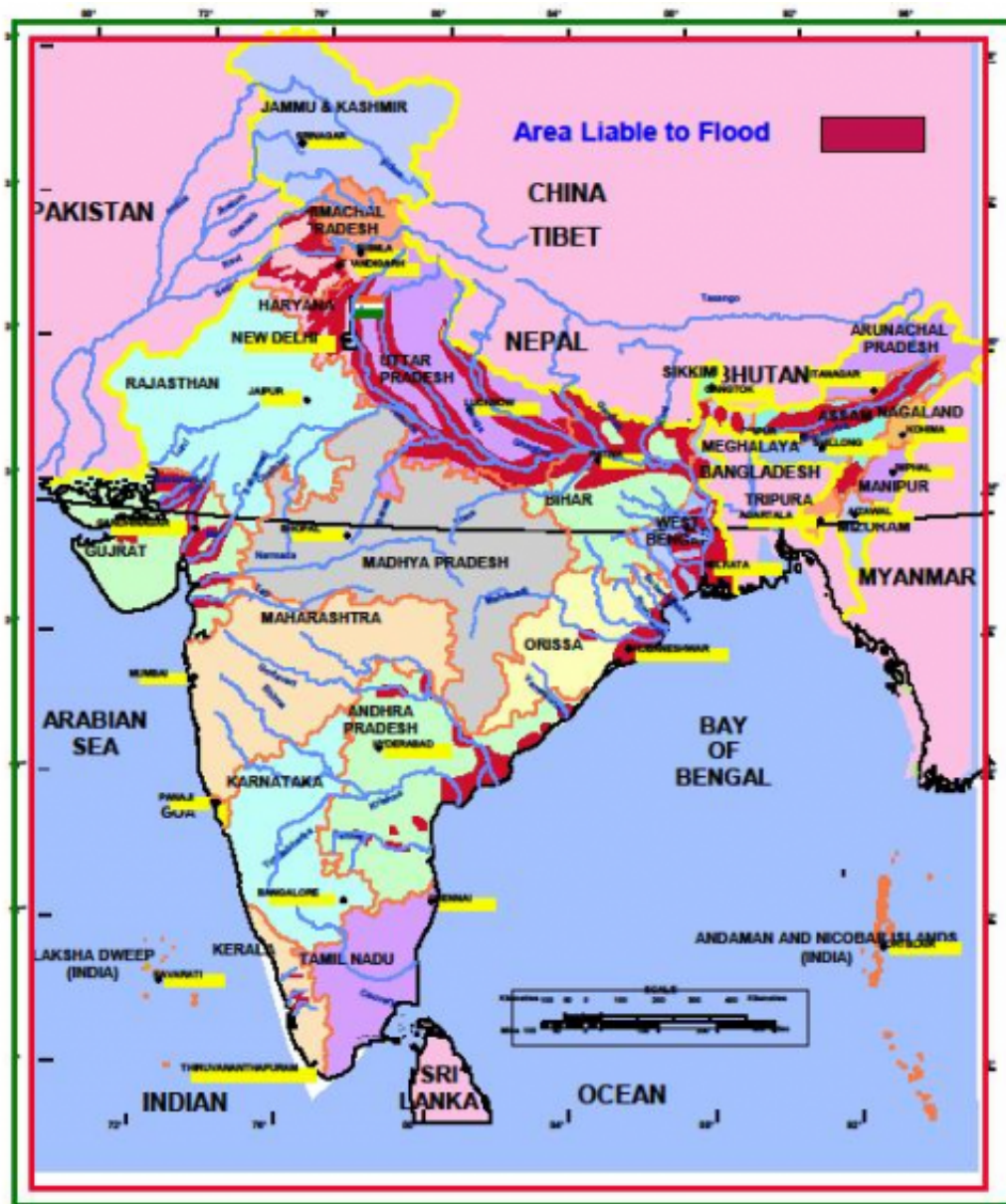
Recent **occurrences of heavy rainfall** leading to flooding across India have **shown that flood-prone areas in the country go beyond** those mentioned in the **central monitoring map**.

- The **shift in the flooding patterns and frequencies demands an updated map** of flood-prone areas, factoring in the impacts of **climate change**.

### Flood Prone Areas According to NDMA

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## Key Points

- **Flood Prone Areas in India:**

- Regions susceptible to floods, according to the [National Disaster Management Authority \(NDMA\)](#), lie **mostly along the Ganga-Brahmaputra river basin**, from the northern states of Himachal Pradesh and Punjab, covering Uttar Pradesh and Bihar and stretching to Assam and Arunachal Pradesh in the northeast.
- The **coastal states of Odisha and Andhra Pradesh**, parts of **Telangana and Gujarat** also witness yearly floods.

- **Need of a New Map:**

- **Old Estimation:**

- The current demarcation is based on estimates made in 1980 by **Rashtriya Barh Ayog (RBA)** or **National Flood Commission** formed four decades ago.
- **National Flood Commission**, was set up by the Ministry of Agriculture and Irrigation in **1976**, to study India's flood-control measures after the projects launched under the **National Flood Control Programme of 1954 failed**

to achieve much success.

- Around **40 million hectares of the geographical area in India is vulnerable to floods**, according to the RBA.
- RBA also **ascribed the floods to purely anthropogenic factors** and not heavy downpours.
- **Climate Change:**
  - Over the last four decades, **India has been reeling from the effects of climate change**. The **global rise in temperatures has led to large periods of no rain** followed by extreme precipitation.
  - **Extreme rainfall events have tripled** in central India between 1950 and 2015, according to the science journal Nature.
    - There will be a **rise in the frequency of floods in India due to rising temperatures between 2070 and 2100**, according to **Climate Change and India**, a report by the Union Ministry of Environment and Forest.
- **Increased Downpour:**
  - In recent times, the **southwest monsoon** period has also been causing massing floods in parts of the country in recent years.
  - In 2020, **256 districts across 13 states in India reported floods** due to excess rainfall.

## Flood

- It is an **overflowing of water onto land that is normally dry**. Floods can happen during heavy rains, when ocean waves come on shore, when snow melts quickly, or when dams or levees break.
- Damaging flooding may happen with only a few inches of water, or it may cover a house to the rooftop. Floods **can occur within minutes or over a long period, and may last days, weeks, or longer**. Floods are the **most common and widespread of all weather-related natural disasters**.
- **Flash floods** are the **most dangerous kind of floods**, because **they combine the destructive power of a flood with incredible speed**.
  - Flash floods occur **when heavy rainfall exceeds the ability of the ground to absorb it**.
  - They also occur **when water fills normally dry creeks or streams or enough water accumulates for streams to overtop their banks**, causing rapid rises of water in a short amount of time.
  - They can **happen within minutes of the causative rainfall**, limiting the time available to warn and protect the public.

## National Disaster Management Authority

- **About:**
  - It is the **apex statutory body for disaster management in India**. It was formally **constituted in September 2006**, in accordance with the **Disaster Management Act, 2005** with the **Prime Minister as its Chairperson** and nine other members, and one such member to be designated as Vice-Chairperson.
- **Mandate:**
  - To **coordinate response to natural or man-made disasters** and for **capacity-building** in disaster resiliency and crisis response.
  - It is also the **apex body to lay down policies, plans and guidelines for Disaster Management** to ensure timely and effective response to disasters.
- **Vision:**
  - To **build a safer and disaster resilient India** by a holistic, proactive, technology driven and sustainable development strategy that **involves all stakeholders and fosters a**

**culture of prevention, preparedness and mitigation.**

**[Source: DTE](#)**

PDF Refernece URL: <https://www.drishtias.com/printpdf/india-needs-an-updated-flood-map>

