



FLOOD DETECTION AND WARNING SYSTEM

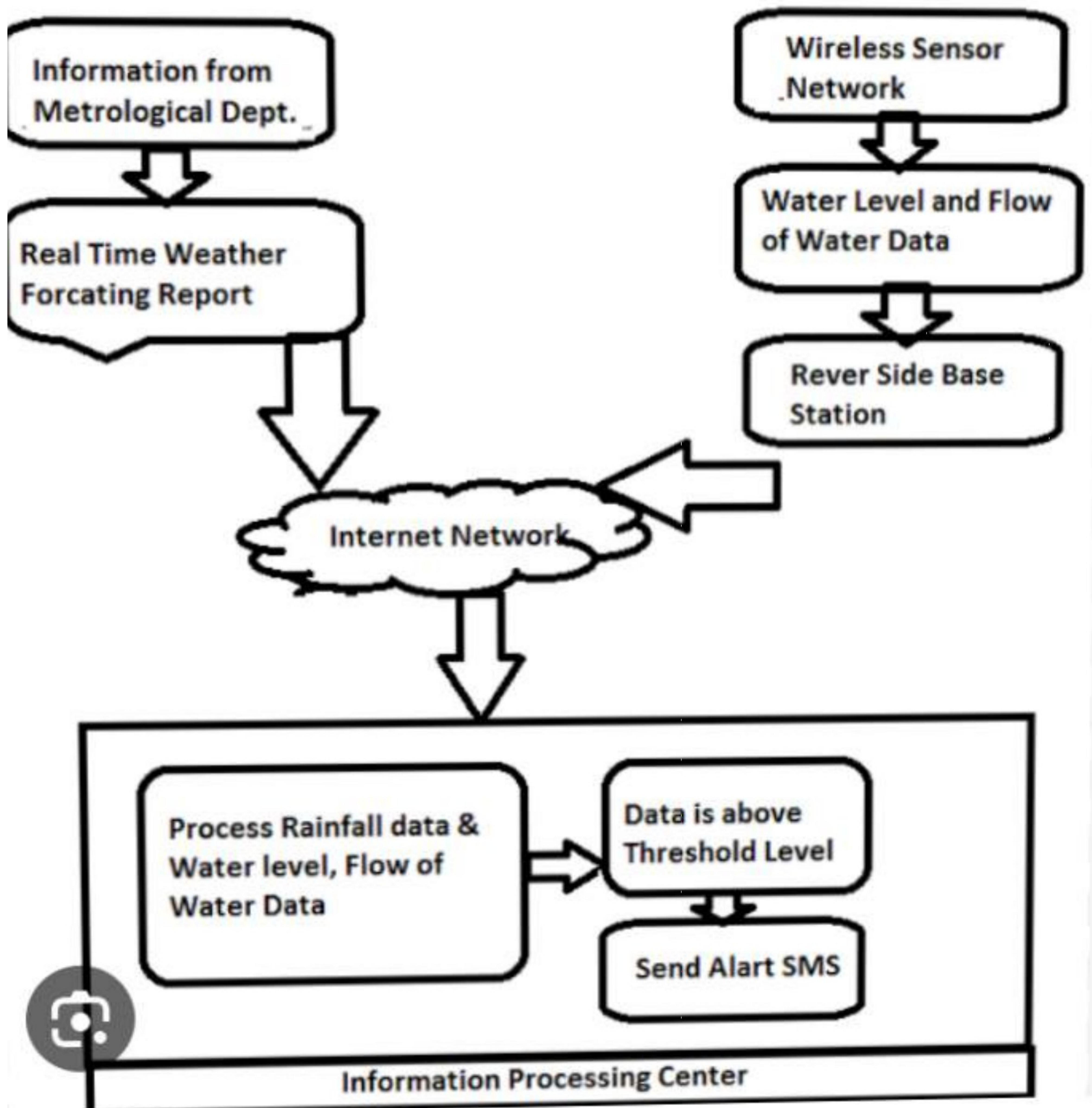
FLOODS

- Natural Phenomena
- Heavy Losses
- Disrupt Normal Life
- In some river valleys, floods have been turned to economic advantage.
- Millions of People grow their rice, wheat, millet and corn on flood plains in India, China & Countries in the East where they are subjected to inundation and death.
- Competition between people and flood water for same land area



Earthquake Magnitude

Magnitude	Earthquake Effects	Approx. number each year
< 2.5	Usually not felt, but recorded	900,000
2.5-5.4	Often felt, only minor damage	30,000
5.5-6.0	Slight damage to buildings and other structures	500
6.1-6.9	May cause a lot of damage in very populated areas	100
7.0-7.9	Major earthquake. Serious damage.	20
> 8.0	Great earthquake. Can be totally destructive near the epicentre.	1 every 5-10 years



Need of Early Warning System

- Early Warning for disaster reduction is a legitimate matter of public policy at the highest national levels for two main reasons:
- The first one, clearly, is public safety, and the protection of human lives.
- The second is the protection of the nation's resource base and productive assets



HISTORY OF DISASTERS IN INDIA



(Major..., 2011)

Types of Natural Hazards

- Volcanoes, floods, earthquakes, tornadoes, tsunamis, etc.
- –can act adversely on human processes
- –can occur:
- without warning (e.g. earthquakes)
- with warnings (precursors) (e.g. satellite monitoring of cyclone tracks, or the presence of ground deformation at a volcano before an eruption)



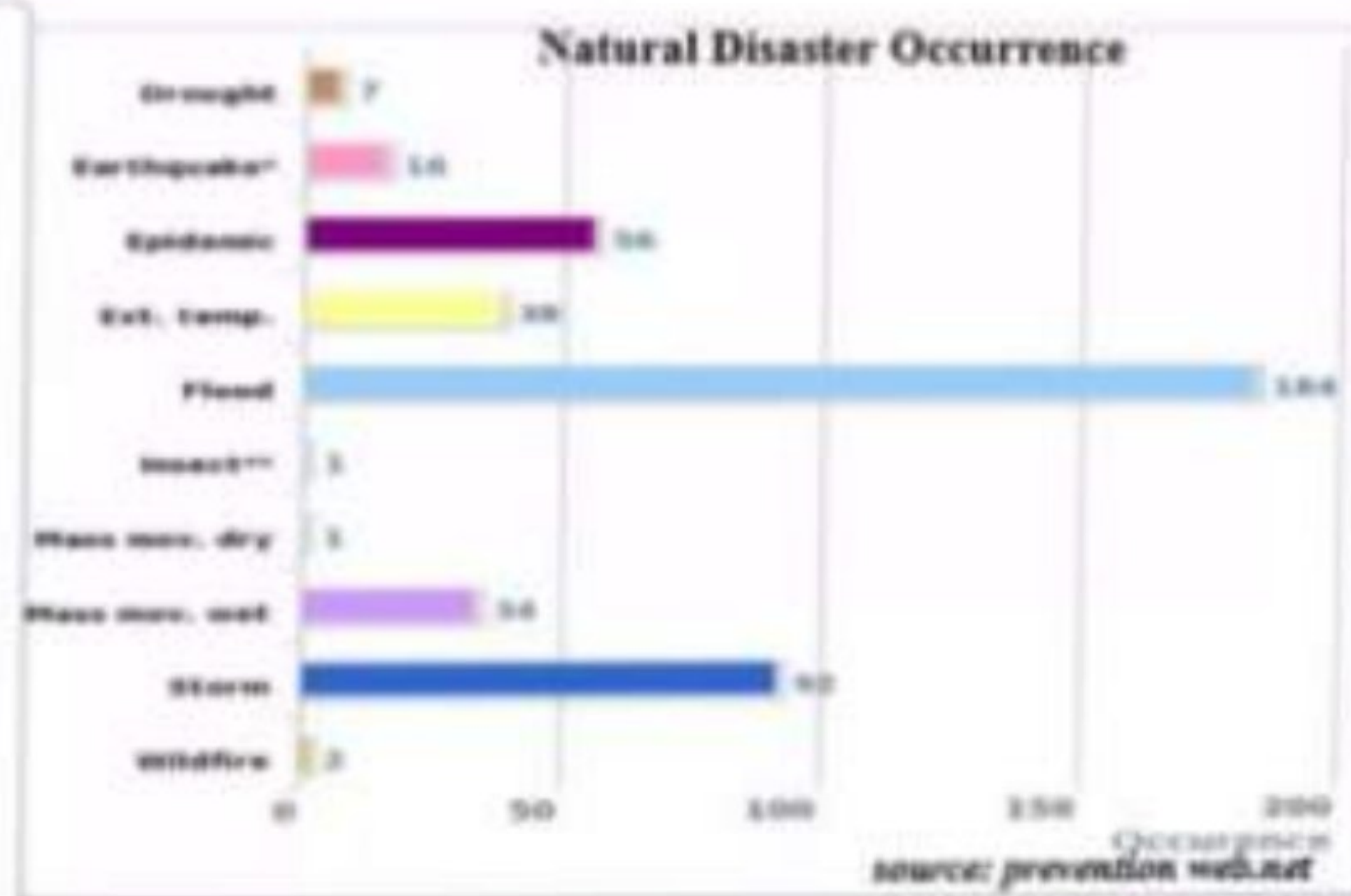
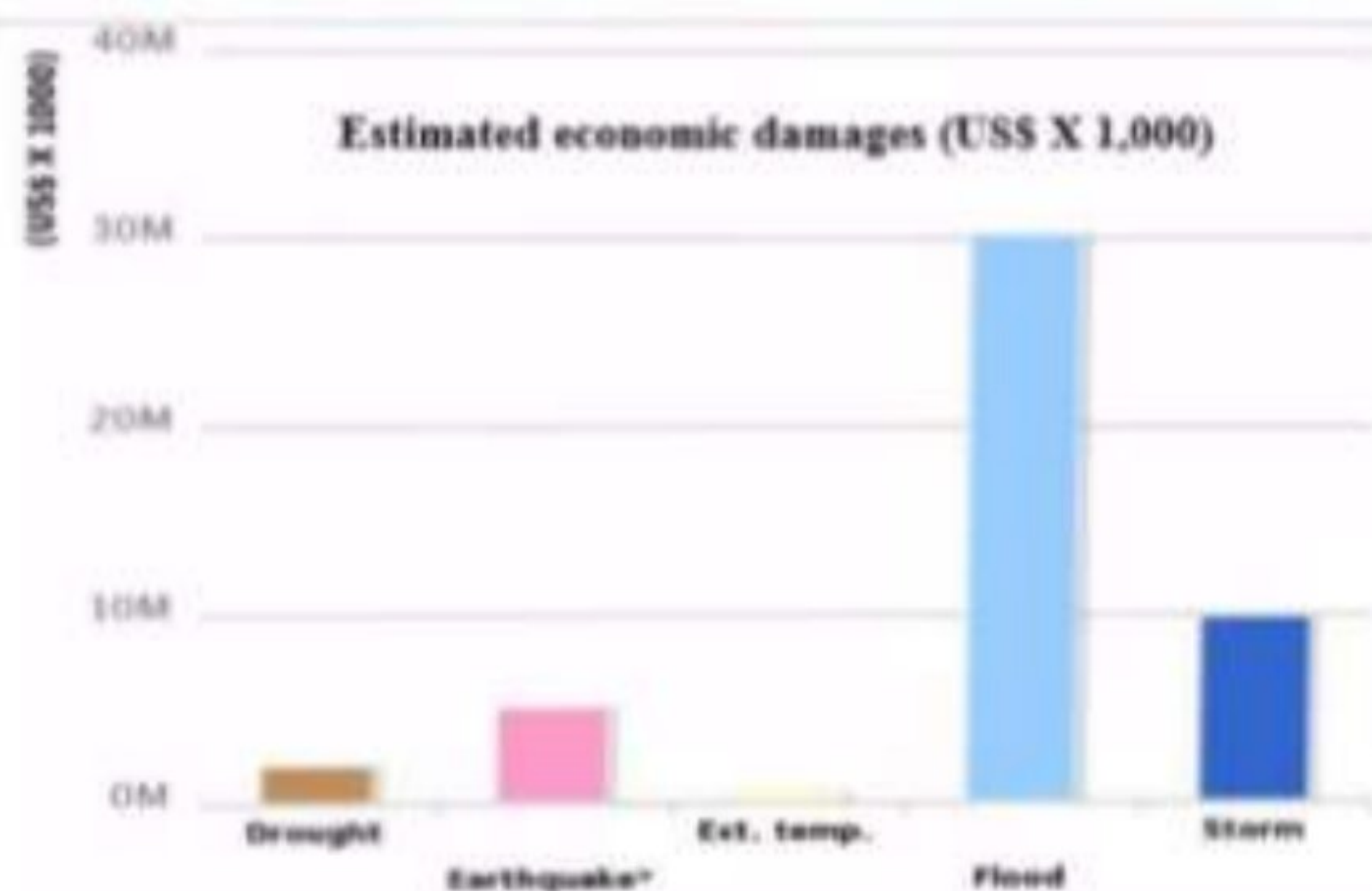
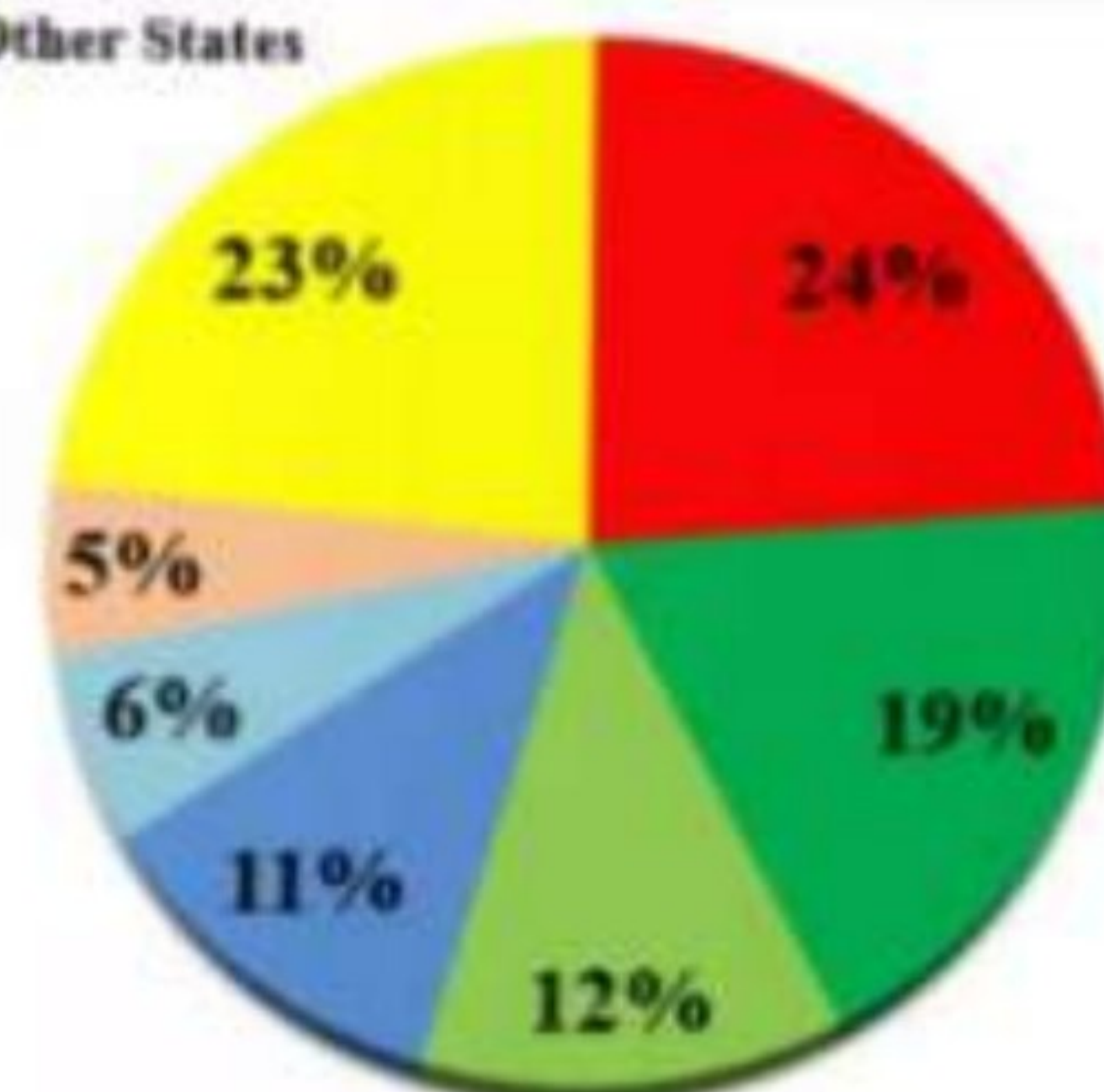
FLOOD PRONE AREAS IN INDIA

- ✓ National Flood Commission (1980): 40 m ha
- ✓ Current Estimate (XII Plan): **49.814 m ha**
- ✓ **Annual average** area and population affected due to flood : **7.2 M ha** and **3.19 million** respectively.
- ✓ Brahmaputra-Meghna, Ganga and Indus most affected basins
- ✓ 39 districts chronically flood prone

Flood Affected Area Annually

- ◆ Average 7.2 M Ha
- ◆ Maximum 17.5 M Ha (1978)
- ◆ Minimum 1.096 M Ha (2006)

- Uttar pradesh
- Assam
- Orissa
- Other States
- Bihar
- West Bengal
- Andhra Pradesh



The background of the slide features a dark, grayscale image. On the left, there is a faint silhouette of a person's head and shoulders, facing right. To the right of the silhouette, there are several faint, light-gray business charts, including a pie chart and a bar chart, suggesting a professional or corporate context.

THANK YOU

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