



FLOODS IN INDIA

a quick Review



63%

of all **DAMAGES** caused by disasters in India are due to floods.

Source:

*DTE-State of India's Environment
2020: In Figures*



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50%

of all climate-related disasters in
India are **FLOODS**.

Source:
Asian Development Bank



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109,412

people were **KILLED** due to floods
from 1952-2018.

Source:
DTE-CSE Data Centre Analysis





Rs. 4.69 trillion

was the total **ECONOMIC LOSS** due to crop, house and other property damages from 1952-2018.

Source:
DTE-CSE Data Centre Analysis



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>40 mHa

Out of the total **GEOGRAPHICAL AREA** of 329 million hectares is flood-prone.

Source:

National Disaster Management Authority (NDMA)



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36 million

people in India are estimated to be **AT RISK** due to floods.

Source:
Study - Nature Communications,
October 2019



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MAJOR CAUSES OF FLOODS IN INDIA

Inadequate capacity within the banks of the rivers to contain the high flows brought down from the upper catchments after heavy rainfall.

Increase in incidences of encroachment on river banks and construction of buildings and other human activities.

Sudden change in topography from high mountains to plain areas is also a reason for floods, particularly in northern India.

Image Source: Media



Some parts of the country, mainly coastal areas experience cyclones, accompanied by heavy rainfall leading to flooding.

Flooding is accentuated by erosion and silting of the river beds, resulting in a reduction of the carrying capacity of river channels.

Unplanned urban development with unregulated constructions and overburdened drainage lead to more floods.

WAYS TO CONTROL OR REDUCE DAMAGE

Mangroves will act as a perfect natural bulwark to prevent flooding in coastal areas. Protection of mangroves help reduce impact of floods.

Advanced techniques such as mapping based on satellite imagery and GIS will help in development of flood early warning systems.

Constructions such as dams, culverts and dykes, widening and deepening of river channels to store and divert water.



Measures such as flood forecasting and community participation in flood risk management.

Stricter Implementation of building laws, demarcation of flood-prone areas in urban landscapes.

An integrated approach to managing floods requires a sound understanding of the patterns of the rivers.



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