



Pre-Monsoon Devastation in Assam

For Prelims: Landslides, Floods, Monsoon

For Mains: Causes of Pre Monsoon Floods and Landslides in Assam and other hilly regions

Why in News?

While the [Monsoons](#) are yet to arrive, Assam has already been beset by [Floods](#) and [Landslides](#) that have left 15 people dead and more than 7 lakh affected.

- The hill district of **Dima Hasao**, in particular, has been ravaged by flash floods and landslides, with connectivity to the rest of the state snapped.

What are the Factors behind this Unprecedented Devastation?

- **Excess Pre-Monsoon Rainfall:**
 - The average rainfall for the period of 1st March to 20th May in Assam is 434.5 mm, the corresponding number for this year is 719 mm which amounts to a 65 % excess.
 - The neighbouring state of Meghalaya has recorded an even greater excess of 137%.
- **Climate Change:**
 - The Timing and the Scale of Rainfall can be attributed to Climate Change.
 - Because of climate change, **there are more and more concentrated rain and heavy rainfall episodes.**

What is Causing the Landslides During Pre-monsoon?

- It is because of **“undesirable, unpragmatic, unplanned structural intervention on the fragile landscape** of hills.
- Over the years, there has **not only been massive deforestation for the extension of the railway line and the four-line highway**, but there has also been **rampant riverbed mining often done in collusion** with the district authorities.
- Many roads are being built over streams and spring water sources and hastily carried out infrastructure developmental work in assam and Nearby States has led to an **increase in landslides in the state in recent years.**

Way Forward

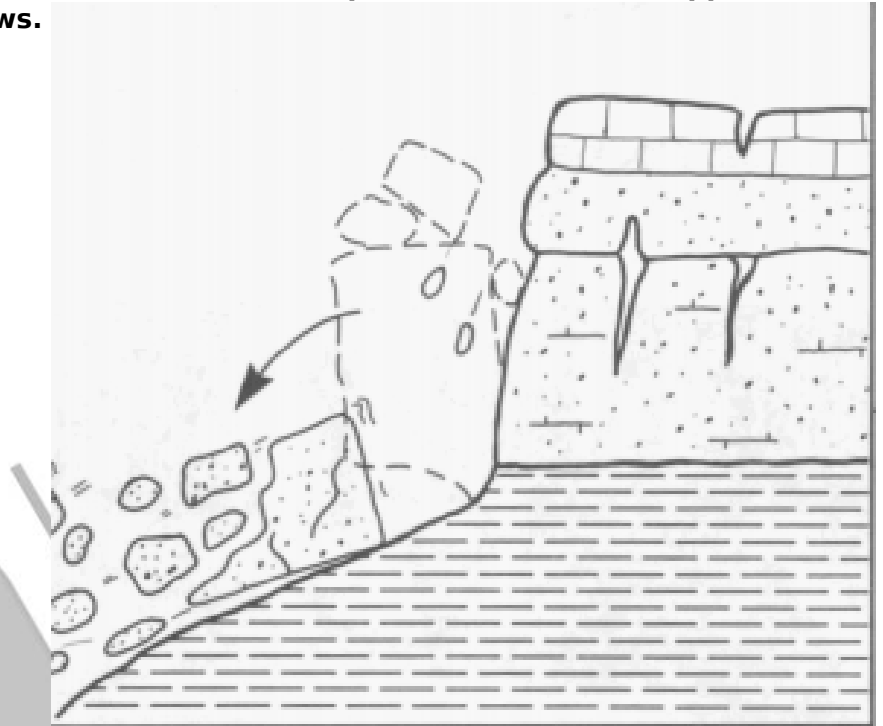
- The construction is needed to be “tuned to the ecological fragility of the region”, but “conscious construction” and an “integrated holistic approach across state boundaries” is the need of the hour.
- It is suggested to keep “traditional knowledge systems in mind” and involve the local community to build “sustainable infrastructure”. As long as it is top-down it will depend on the masculinist engineering bureaucracies.

- **Blaming climate change for everything is not enough**, there is a need to **look back at the mess we have created** on the ground level in combination with climate change to account for such disasters.

What is Landslide?

▪ About:

- A landslide is defined as the **movement of a mass of rock, debris, or earth down a slope.**
- They are **a type of mass wasting**, which denotes any downward movement of soil and rock under the direct influence of gravity.
- The term landslide encompasses **five modes of slope movement: falls, topples, slides, spreads, and flows.**



▪ Related Steps:

- The [Geological Survey of India \(GSI\)](https://www.drishtiias.com/printpdf/pre-monsoon-devastation-in-assam) has done a **national landslide susceptibility mapping** for 85% of the entire 4,20,000 square km landslide-prone area in the country. The **areas have been divided into different zones according to the propensity of the disaster.**
 - **Improvement in early warning systems, monitoring and susceptibility zoning** can reduce the damage caused by landslides.

[Source: DTE](#)