

Glacial Lake Outburst Flood (GLOF) in Bhutan 2026

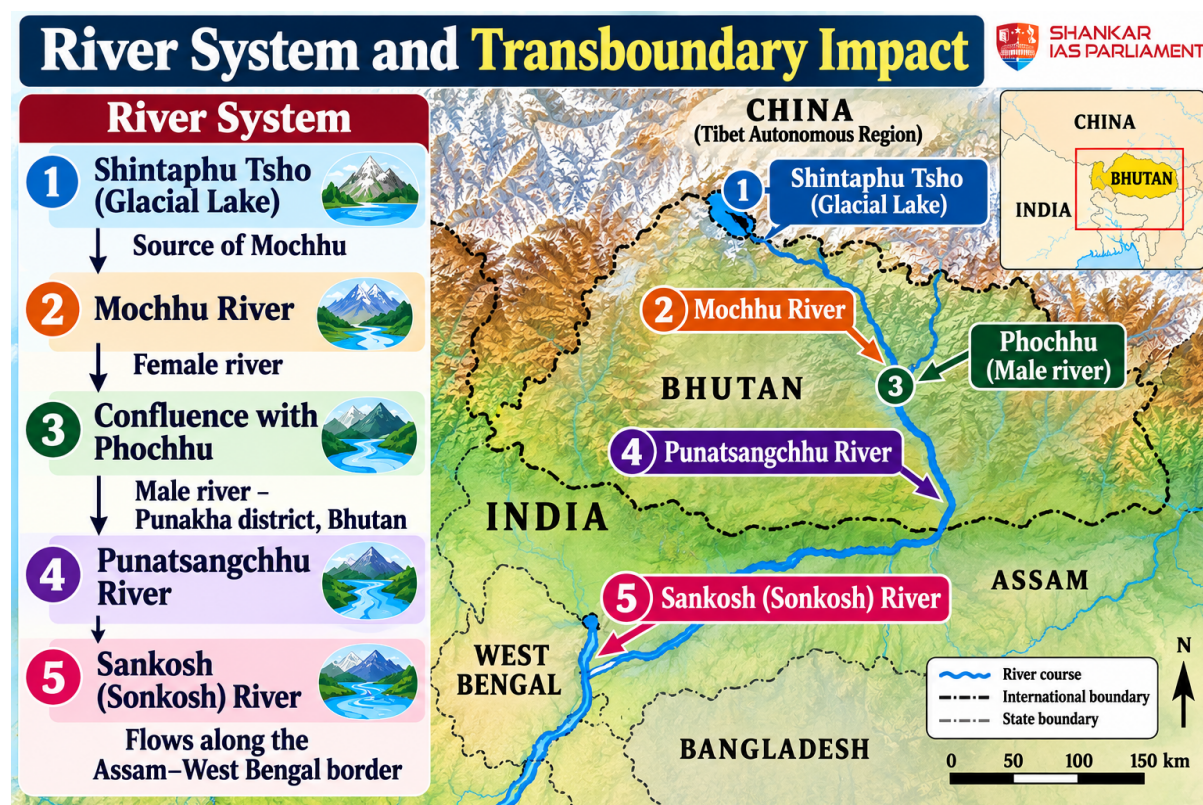
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Why in News?

A Glacial Lake Outburst Flood (GLOF) originating from Shintaphu Tsho (Sintaphu Lake) in the northwestern Gasa district of Bhutan.

Origin and Location

- **Glacial lake involved** - Shintaphu Tsho (Sintaphu Lake).
- **Location of the event** - Laya area, Gasa district, northwestern Bhutan.
- **Affected river** - Mochhu River.



Water Volume

- Prior to the outburst, the lake contained an estimated 6 to 7 million cubic metres of water.
- This volume is equivalent to approximately 2,400 to 2,800 Olympic-sized swimming pools.
- The precise volume of water released is still under assessment.

Impact

- Infrastructure, including roads and bridges, sustained damage in Bhutan.
- A Bailey bridge in Punakha district, constructed in 2022 with support from India, was washed away.
- The Gasa Tshachu hot spring sustained extensive damage.
- No human casualties were reported as of October 30, 2026.
- A new artificial lake formed near Taktsemakhang, downstream of Laya, which has raised concerns regarding another potential outburst.
- Bhutanese authorities ordered the evacuation of vulnerable individuals and personnel from affected locations.
- Downstream alerts were issued for regions in West Bengal and Assam.

Glacial Lake Outburst Floods (GLOFs)

- A Glacial Lake Outburst Flood (GLOF) refers to the sudden release of a substantial volume of water from a glacial lake resulting from the failure or breaching of its natural dam.
- Glacial lakes typically form through the accumulation of meltwater originating from glaciers.
- These lakes are commonly dammed by the following natural barriers:
 - Moraines, which are accumulations of glacial debris.
 - Ice formations, bedrock, or other natural barriers.

Major Triggers of GLOFs

- **Glacier melting** - Rising temperatures increase meltwater and lake volume.
- **Moraine Dam Failure** - Weak or unstable moraine barriers may collapse.
- **Avalanches** - Ice, snow, or rock avalanches can enter lakes and generate displacement waves.
- **Earthquakes** - Seismic activity can destabilise natural dams.
- **Heavy rainfall** - Excessive rain can raise lake levels and destabilise surrounding slopes.

Reference

[The Hindu | Bhutan GLOF 2026](#)