

What is GLOF? Dis. app. of satellite tech. in monitoring glacial lakes

Glacial lakes are the lakes formed in the depressions created by receding glaciers.

### Glacial lake outburst flood.

The glacial lakes are dammed by moraines, ice and erosion. When the lake overflows the water due to failure of dams, causes catastrophic floods called as glacial lake outburst flood.

Remote sensing technology developed by ISRO came in place to monitor the floods.

### Applications

① Monitoring: Physically monitoring Himalayan lakes are difficult.

Remote sensing monitoring can precisely locate the lake.

② Risk assessment Remote sensing can give data about formation of new lakes and expansion of existing ones. As per ISRO, the Gokhary Ghat lake has expanded by 175% between 1989 to 2022.

③ Early warning systems can be developed by remote sensing such as water level cameras, motion detection sensors and water meters.

④ Disaster preparedness can be done which can protect downstream communities.

The Gokhary lake outburst floods are on the rise due to climate change. Remote sensing system can mitigate the damages caused by it.