



Glacial Lake Outburst Flood – GLOFs

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- Formation of glacial lakes takes place mainly due to obstruction of water flow in high altitude glacier basins due to glaciers, moraines or natural depressions. As the trough is formed by the moraine, in which the melted water from the glaciers begins to collect, resulting in the formation of glacial lake.
- Water from the glaciers continues to flow in lakes until the lake overflows. Due to global warming, when the impulse of glacial melting becomes unstable and large amounts of water flow towards the lakes, the water stored in the lakes suddenly 'outbursts' and a 'flash flood' situation arises. . This is known as the 'Glacial Lake Outburst Flood'. Such incidents are more common in Alpine areas due to landslides.
- The failure of glaciers or moraine dams is considered to be the major reason for the disastrous events taking place around the world. The release of large amounts of water at short intervals increases the chances of flooding in these downstream areas. Due to insufficient data on rainfall intensity, landslides and physical conditions of lakes (and other water bodies), their results are unexpectedly disastrous.
- Recently, National Thermal Power Corporation's (NTPC) Tapovan Vishnugarh power project (520 MW) and Rishi Ganga Power Corporation Limited's project (13.2 MW) in Chamoli district of Uttarakhand have been severely damaged by flash floods due to glacier outbursts.