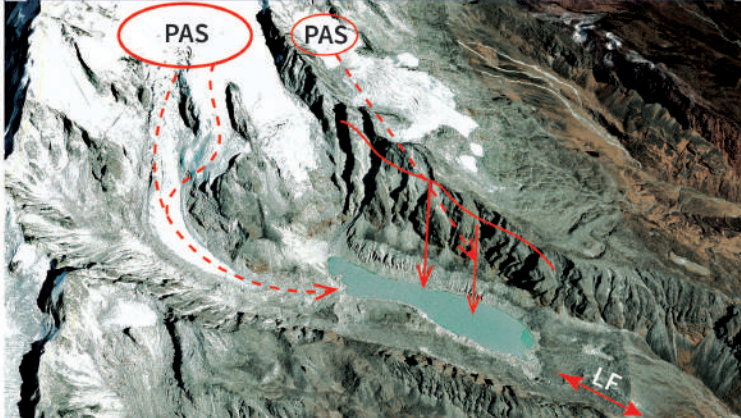


Preliminary Hazard Assessment of High Risk Glacial Lakes of Category 'A' in Sikkim



TIKIP LAKE (No. 1 High Risk Lake)



Preliminary assessment carried out by scientific team of Science & Technology Department, Government of Sikkim

- Elevation: 4884 m, Area: 36 Ha, Lake Volume : 16 million m3
- Steep gradient of the lateral moraine, poses a risk of slope failure/landslide
- Risk of Ice falls from Hanging glacier (HG) and avalanche from potential avalanche site (PAS)
- Limited moraine dam height
- Moraine dam width is broad with low freeboard (LF)
- No natural outlet exists

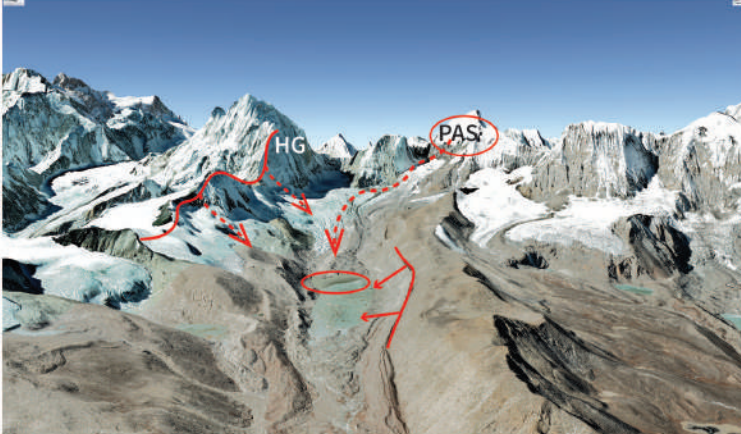
BHALAY POKHARI AND DOODH POKHARI (No. 2 & 3 High Risk Lake)



Preliminary assessment carried out by scientific team of Science & Technology Department, Government of Sikkim

- Bhalay Pokhari - Elevation: 4740 m, Area: 12 Ha, Lake Volume: 4 million m3
- Doodh Pokhari - Elevation: 4780 m, Area: 2 Ha, Volume: 0.5 million m3
- Both these lakes are formed above the fragile lateral moraine of East Rathong Glacier
- Bhalay Pokhari is prone to Ice fall from hanging glacier and avalanches (PAS)
- Doodh Pokhari is overflowing into the East Rathong lake
- Main risk is the chance of slope failures from outlet of Doodh Pokhari

CHANGSANG LAKE (No. 4 High Risk Lake)



Preliminary assessment carried out by scientific team of Science & Technology Department, Government of Sikkim

- Elevation: 5431 m, Area: 85 Ha, Volume: 43 million m3
- Lake started forming in 1990s, glacier tongue and lake is in direct contact resulting in excessive melting
- High volume
- Risk of Avalanche and Hanging Glacier (HG) from head wall of glacier
- Unstable lateral moraine, prone to landslides/slope failures
- Natural outlet exists, water flows over terminal moraine causing high erosion

NORTH LHONAK LAKE (No. 5 High Risk Lake)



Preliminary assessment carried out by scientific team of Science & Technology Department, Government of Sikkim

- Elevation 5470 m, Area 83 Ha, Volume 42 million m3
- High Lake volume
- Risk of snow and ice avalanche
- Located above South Lhonak Lake
- Lake has natural outlet which is draining into the South Lhonak Lake



Visit Us