



# **GLACIAL LAKE STUDIES IN SIKKIM**





# 5. SLOPE FORMING MATERIALS, GEOLOGICAL AND VULNERABILITY MAPPING.

#### (A) Definition:

It involves analyzing and documenting the materials and geological features that make up slopes, as well as assessing how these factors influence stability and susceptibility to GLOF.

(B) Instruments used:

Brunton Compass, GPS, Geological hammer, Schmidt hammer.



#### (C) Expected deliverables:

- Rock formation sequence
- Orientation of the rock
- Type of materials comprising the slope
- Categorization of most vulnerable zone and stable zone



#### 6. OUTLET DISCHARGE.

### (A) Definition:

It indicates how much water is leaving the lake over a specific period of time.

(B) Instruments used:

Digital hand-held current meter.

(C) Expected deliverables:







#### 7. PERMAFROST MONITORING OF MORAINE.

# (A) Definition:

It involves tracking and studying the frozen ground to understand its temperature, thickness and changes over time.

(B) Instruments used:

Tiny tag temperature sensors.



## (C) Expected deliverables:

- Permafrost distribution map
- Record of sub-surface and ambient air temperature



