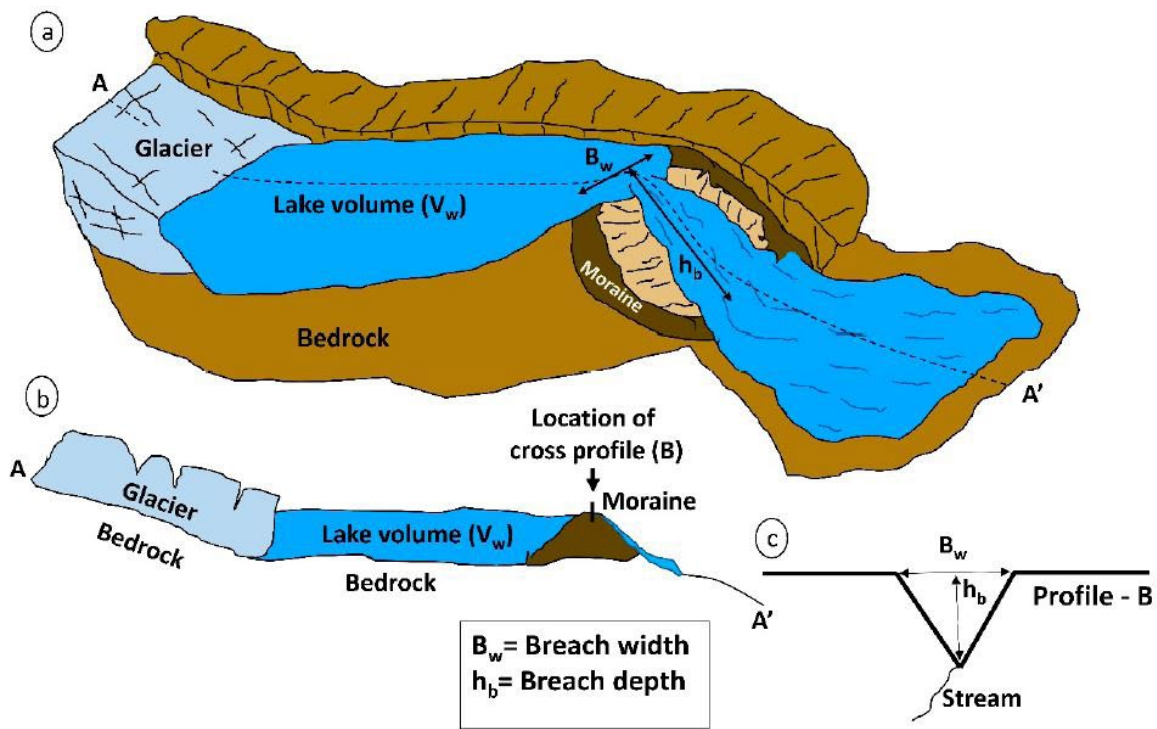


# GLACIAL LAKE OUTBURST FLOOD IN THE HIMALAYA

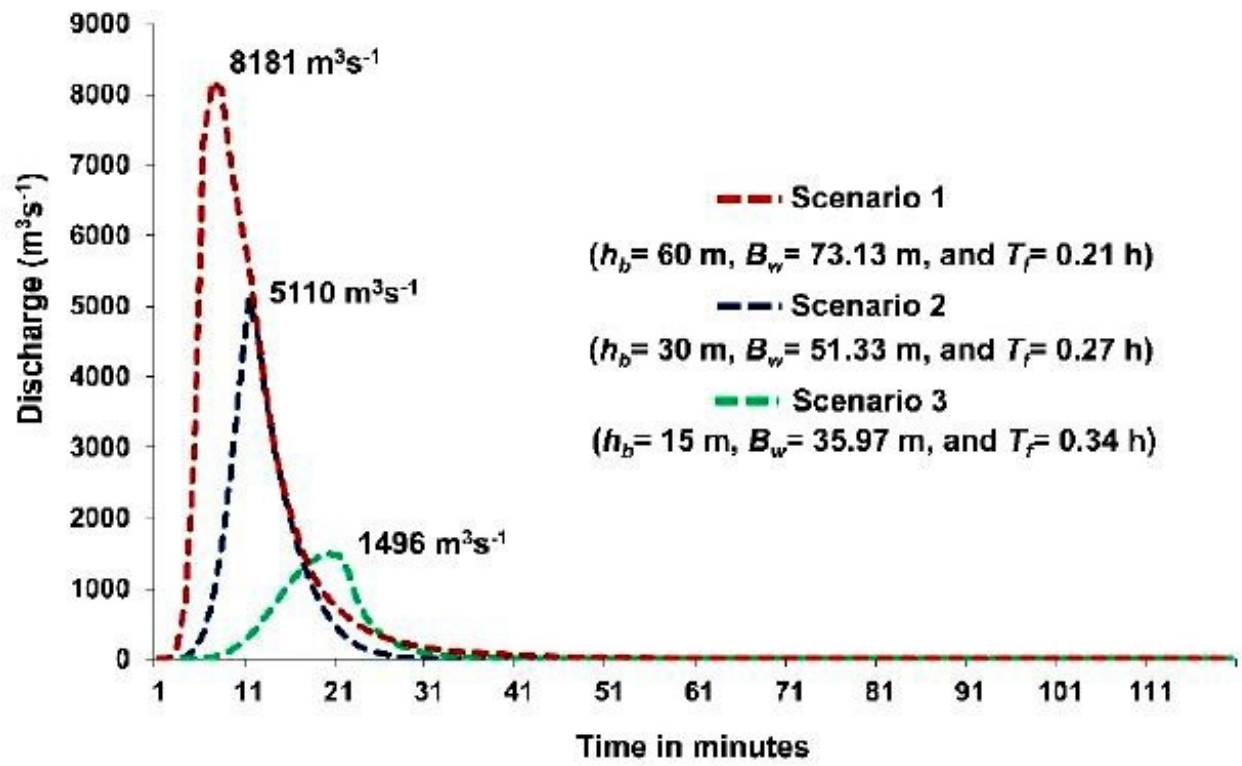
The threat of glacial lake outburst flood (GLOF) is increasing in Himalaya on account of global warming. Sattar et. al. (2020) have studied the impact of GLOF in Saded lake (30°N and 80°E) in Uttarakhand in the Indian Himalaya. The area of the lake has doubled in the last 50 years. The impact of the breach in the moraine dam was evaluated using a hydrodynamic model. Most of the lake water discharged within 20 minutes and the peak discharge could be more than 8000 cubic meter per second. The maximum flooding at Milam village

(located 16 km downstream) occurred around an hour after the breach of the moraine dam. This indicates the need for advanced warning system to be installed at the lake in order to save lives in the village.

**Reference:** Sattar, A., Goswami, A., Kulkarni, A.V., and Emmer, A., Lake Evolution, Hydrodynamic Outburst Flood Modeling and Sensitivity Analysis in the Central Himalaya: A Case Study, *Water*, 12, 237, 2020



Glacier geometry



Discharge during a glacier outburst flood