Geosciences Division

Physical Research Laboratory

Tuesday Seminar (online)

Chronology of Quaternary Glaciation in the Central and Northwestern Himalaya: Findings in the Recent Decade

Abstract

The glaciation in Himalaya is a combined influence of climate and orography. To understand the local response of global climate change, a proper chronology of glaciation events is necessary. The Higher Himalayan Range in the south and Karakoram Range in the north play an important role and affect the moisture transport in the region. The dominance of moisture sources varies between monsoon-influenced Central Himalaya and westerlies influenced Northwestern Himalaya. With limited dates on glaciation events earlier, it was observed that the Himalayan glaciers only responded to the Indian Summer Monsoon irrespective of the geographical position. The most interesting/intriguing observation was that no glaciation event was found during the last glacial maximum event in the Nubra valley and the Ladakh Range, which lie in the north of higher Himalaya and are presently influenced by westerlies. Recently, several studies have reported many glacial events dated using both terrestrial Cosmogenic Nuclide and Luminescence dating methods. In this presentation, the timing of glaciation events from recent studies in the valleys from Karakoram, Ladakh, Zanskar, and Higher Himalayan ranges along with the factors responsible for driving quaternary glaciation will be discussed.

Speaker: **Mr. Partha Sarathi Jena**
SRF, GSDN

Date	Time	Platform
14-July-2020	16:00 Hrs	Google Meet (web based portal)

All are invited to attend and participate in discussion

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