

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION NO. 2862
TO BE ANSWERED ON WEDNESDAY, 15TH DECEMBER, 2021**

RESEARCH ON HIMALAYAN REGION

2862. SHRI NALIN KUMAR KATEEL:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether Scientists have recently found that nearly 20,000 years ago, a large Himalayan glacier abruptly changed course and over time fused into an adjacent glacier in present-day Pittoragarh, Uttarakhand;
- (b) if so, the details thereof;
- (c) whether the Himalayan region is among the youngest mountain ranges in the world due to which the supporting underlying tectonic plates are not stable and frequently trigger earthquakes and landslides;
- (d) if so, whether the Government proposes to encourage further research and study on the Himalayan region to find solutions to frequent natural calamities; and
- (e) if so, the details thereof

**ANSWER
THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR
MINISTRY OF SCIENCE AND TECHNOLOGY
AND EARTH SCIENCES
(DR. JITENDRA SINGH)**

- (a) Yes, Sir.
- (b) Scientists of Wadia Institute of Himalayan Geology while studying the glaciers in the upper Kali Ganga valley, Pithoragarh district of Uttarakhand Himalaya found that the 5 km long unnamed glacier (30.28089N- 80.69344E), covering an area of ~ 4 km² in KuthiYankti valley (Tributary of Kali River), abruptly changed its main course and merged with an adjacent glacier named Sumzurkchanki, due to changes in climate and tectonic forcing sometime between the Last Glacial Maxima (19-24,000 years ago) and Holocene (10,000 years ago) .
- (c) Yes Sir.
- (d) Yes Sir, the Government encourages further research and study on the Himalayan region to find solutions to frequent natural calamities.
- (e) The government encourages research on the natural calamities in the Himalayan region by numerous research institutes, universities, IIT's, IISc, etc. Ministry of Earth Sciences (MoES) through its National Centre for Seismology is involved in the research using the recorded earthquake data to understand various phenomena related to earthquake processes and seismic hazard assessment particularly for Himalayan region. The Wadia Institute of Himalayan Geology has been pursuing research in understanding the causes and consequences of earthquakes, landslides and avalanches in the Himalaya with a view to provide mitigation measures.
