

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION No. 5677
TO BE ANSWERED ON FRIDAY, JULY 26, 2019**

NCPOR

**5677. SHRI RAJA AMARESHWARA NAIK:
DR. SUKANTA MAJUMDAR:
SHRI VINOD KUMAR SONKAR:**

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the National Centre for Polar and Ocean Research (NCPOR) has established a high altitude research station named 'Himansh' in Himalaya;**
- (b) if so, the details thereof;**
- (c) whether the scientists from NCPOR are involved in the research of Himalayan glaciers, if so, the details thereof; and**
- (d) whether the studies carried out by NCPOR in Chandra basin indicated varying rates of retreat of these glaciers, if so, the details thereof; and**
- (e) the other steps taken by the NCPOR in this field during the last three years?**

ANSWER

**MINISTER FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND
MINISTRY OF EARTH SCIENCES
(DR. HARSH VARDHAN)**

- (a) Yes, Sir.**
- (b) The HIMANSH high altitude station is situated above 4000 m at a remote region called Sutri Dhaka in Lahaul-Spiti, Himachal Pradesh. The purpose of establishing the station is to study and quantify the Himalayan glacier responses towards climate change. The station houses many instruments like Automatic Weather Stations for weather monitoring, water level recorder for quantifying the glacier melt, ground penetrating radar to estimate the thickness of glaciers, geodetic GPS systems to study the glacier movements, as well as various glaciological equipments.**
- (c) Yes, Sir. Scientists from NCPOR are involved in the research of Himalayan glaciers, the details of which are as under:**

- 1. Glacier monitoring studies.**
 - 2. Geophysical studies of glacier dynamics and field glaciological studies.**
 - 3. Geospatial and geodetic data based glacier studies.**
 - 4. Glacier and glacio-hydrological modeling to understand the current and future behavior of glaciers.**
 - 5. Glacio-hydrological studies using field measurements and isotope fingerprinting.**
 - 6. Energy balance studies in glacier basins using field data and modeling.**
- (d) Yes Sir. The Chandra basin glaciers in Western Himalaya are retreating at rate varying between 13 to 33 meters per year.**
- (e) NCPOR has undertaken studies in the Western Himalaya in Chandra basin in Lahaul-Spiti (Himachal Pradesh) since 2013. A total of six glaciers namely Sutri Dhaka, Batal, Bara Shigri, Samudra Tapu, Gepang Gath and Kunzum of this basin are monitored for mass, energy and hydrological balance.**
