

GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
**RAJYA SABHA**  
**UNSTARRED QUESTION NO. - 1779**  
ANSWERED ON – 17/03/2022

**MEASURING DEPTH OF HIMALAYAN GLACIERS TO ASSESS WATER  
AVAILABILITY**

1779. DR. KANIMOZHI NVN SOMU:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether Government plan to measure the depth of Himalayan glaciers to assess water availability, if so, the details of the authority undertaking and implementing the mission;
- (b) the areas of the Himalayas which will be explored under the mission along with the details of the phase-wise implementation of the project; and
- (c) the quantum of funds proposed to be allocated for the research along with the details of the technology likely to be used in the mission?

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

- (a) It is imperative to estimate the thickness of the Himalayan glaciers in order to assess the water availability stored in these glaciers. Geophysical techniques and Ground Penetrating Radar (GPR) profiling have been employed for assessing depth of some glaciers by the Geological Survey of India (GSI). National Centre for Polar and Ocean Research (NCPOR) under Ministry of Earth Sciences has approached International agencies and potential partners to develop and demonstrate innovative airborne radar survey technique which is not available in India and it is also not commercially available elsewhere. Once the technology is matured this work will be taken up.
- (b) The areas of the Himalayas which will be explored will be decided once the technology is matured.
- (c) No specific funds have been allocated.

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