

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 1351**  
TO BE ANSWERED ON 31.07.2025

**Glacier and Climate Preservation**

1351. SHRI SURENDRA SINGH NAGAR:  
SHRI LAHAR SINGH SIROYA:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether Government has taken strategic actions to monitor glaciers and glacial lakes in the Indian Himalayan Region;
- (b) if so, the details thereof; and
- (c) the details of steps being taken to support data-driven policy formulation for the sustainable management of India's water resources?

**ANSWER**

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE  
(SHRI KIRTI VARDHAN SINGH)

(a) & (b) The Government, through various Ministries, Departments and Institutes, has taken strategic and systematic actions to monitor glaciers and glacial lakes in the Indian Himalayan Region (IHR).

The Ministry of Jal Shakti (MoJS) has constituted a Steering Committee on 'Monitoring of Glacier' under the Chairmanship of Secretary, Department of Water Resources, River Development & Ganga Rejuvenation (DoWR, RD & GR), to monitor and coordinate the work carried out by various ministries and organizations on the Himalayan glaciers.

The Central Water Commission (CWC) under Ministry of Jal Shakti (MoJS) is the nodal agency for monitoring glacial lakes and water bodies in India. The CWC presently monitors 902 Glacial Lakes and Water Bodies (GL&WBs) of size greater than 10 Ha included from Glacial Lake Inventory 2011 prepared by National Remote Sensing Centre (NRSC), in the Himalayan Region of Indian River Basins, for the period June to October every year, using remote sensing techniques.

The National Disaster Management Authority (NDMA), under the Ministry of Home Affairs (MHA) also monitors glaciers and glacial lakes under the National Glacial Lake Outburst Flood (GLOF) Risk Mitigation Programme (NGRMP), implemented in four Himalayan States, namely, Himachal Pradesh, Uttarakhand, Sikkim, and Arunachal Pradesh.

The Wadia Institute of Himalayan Geology (WIHG), under the Department of Science and Technology (DST), actively monitors glaciers through field-based observations across the Central Himalaya, Western Himalaya, and Karakoram regions. Currently, WIHG monitors thirteen glaciers, seven in the Central Himalaya and six in the Western Himalaya and Karakoram.

The Geological Survey of India (GSI), under the Ministry of Mines, is also involved in monitoring and measuring glacier recession or advance and conducting mass balance observations of selected glaciers, particularly in the Indian Himalayan Region.

The G. B. Pant National Institute of Himalayan Environment (GBPNIHE), an autonomous institute of the Ministry of Environment, Forest & Climate Change (MoEF&CC), is also involved in glacier studies in the Himalayan region through field measurements and remote sensing approach.

The Ministry of Earth Sciences (MoES) through its autonomous institute, the National Centre for Polar and Ocean Research (NCPOR) monitors six glaciers in the Chandra basin (2437 km<sup>2</sup> area) in Western Himalaya.

A centre for Cryosphere and Climate Change Studies has been established at National Institute of Hydrology (NIH), Roorkee with a focus to study the impact of climate change on water resources of the Indian Himalayan Region (IHR).

(c) The Ministry of Jal Shakti has undertaken various initiatives to enable data-driven approaches for the sustainable management of India's water resources. These efforts aim to improve the availability, quality, and accessibility of water-related data, thereby supporting scientific planning, efficient resource allocation, and effective decision-making.

National Hydrology Project (NHP) is a World Bank supported Central Sector Scheme with State/Central Implementing Agencies. NHP has pan-India coverage with 48 Implementing Agencies from Central Government and States/ UTs Government, with the objective to improve the extent and accessibility of water resources information and to create decision support system for flood management, water resources assessment and planning.

National Water Informatics Centre (NWIC) was set up by the Government of India to act as a central repository of water data and allied themes. It collects, maintains, updates and disseminates the water data and information for use by various stakeholders. NWIC is also aligning water resource planning with PM Gati Shakti using GIS-based tools for better inter-ministerial coordination and spatial planning.

The National Aquifer Mapping and Management (NAQUIM) program, initiated by the Central Ground Water Board (CGWB), aims to delineate and characterize aquifers across India for sustainable groundwater management using Scientific data.

Reservoir Storage Monitoring System is developed by Central Water Commission (CWC) for monitoring water storage in major reservoirs in the country. The weekly bulletin consisting of water storage data is shared with the stakeholders for planning and informed water release decisions.

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