

**GOVERNMENT OF INDIA  
ENVIRONMENT, FORESTS AND CLIMATE CHANGE  
LOK SABHA**

STARRED QUESTION NO:499  
ANSWERED ON:28.04.2015  
CONSERVATION OF GLACIERS  
Nishank Dr. Ramesh Pokhriyal

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

- (a) whether the Government has conducted/proposes to conduct any survey/study on the number and extent of glaciers in the entire Himalayan region and if so, the details thereof;
- (b) whether any action plan has been formulated/proposed to be formulated by the Government for the conservation of the said glaciers and if so, the details thereof;
- (c) the number of research institutes working on conservation of the glaciers in the country along with the details of their findings; and
- (d) whether any international cooperation is being sought for survey, research and conservation of the glaciers and if so, the details thereof?

**Answer**

MINISTER OF STATE (INDEPENDENT CHARGE) FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI PRAKASH JAVADEKAR)

(a) to (d): A statement is laid on the Table of the House

Statement referred to in reply to parts (a) to (d) of the Lok Sabha Starred Q. No. 499 scheduled for answer on 28.04.2015 regarding 'Conservation of Glaciers'

(a) In a collaborative project with Ministry of Environment, Forest and Climate Change (MoEF&CC), Indian Space Research Organisation (ISRO) has carried out mapping of Himalayan glaciers covering Indus, Ganga and Brahmaputra basins using Indian satellite data during 2004 to 2011. The study shows that there are 34,919 glaciers spread over 75,779 sq. km. glaciated area in the entire Himalaya. Further, ISRO has monitored the glacier advance and retreat of 2018 glaciers, across the Himalayan region using satellite data of 2000-2001 and 2010-2011.

(b) The National Mission for Sustaining the Himalayan Ecosystem (NMSHE) under National Action Plan on Climate Change (NAPCC) aims at evolving conservation measures for sustaining and safeguarding the Himalayan glaciers and mountain ecosystem through establishment of monitoring network, promotion of community based management, human resource development, and strengthening regional cooperation.

(c) Some of the research institutions working on Glaciology in India are Geological Survey of India; Wadia Institute of Himalayan Geology, Dehradun; Space Applications Centre, Ahmedabad; University of Jammu; Hemwati Nandan Bahuguna Garhwal University, Uttarakhand; Remote Sensing Applications Centre, Lucknow; Govind Ballabh Pant Institute of Himalayan Environment and Development, Almora; Snow and Avalanche Study Establishment, Chandigarh; Indian Institute of Technology, Mumbai; Birla Institute of Technology, Jaipur; University of Lucknow; Birbal Sahni Institute of Palaeobotany, Lucknow and National Institute of Hydrology, Roorkee. Mass balance, hydro-meteorology, glacier dynamics and glacier length/area changes on the Himalayan glaciers are being studied and monitored. Further, a 'Centre for Glaciology' has also been established at Wadia Institute of Himalayan Geology, Dehradun. The recession of glacier is a natural cyclic process. The ISRO study indicates that 1752 glaciers showed no change, 248 glaciers were retreating and 18 glaciers were advancing.

(d) No Sir.