

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 2117**  
TO BE ANSWERED ON 16.12.2021

**Vulnerability of Himalayan region**

2117. SHRI HARDWAR DUBEY:

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

- (a) the Government's response towards the apprehension being expressed that ecosystem of mountain region is not being taken seriously in development programmes as unprecedented natural calamities recently occurred in Himalayan mountain region;
- (b) whether the Government has any policy regarding the vulnerability of Himalayan States; and
- (c) if so, the details thereof?

**ANSWER**

**MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE**  
**(SHRI ASHWINI KUMAR CHOUBEY)**

- (a) Government is taking utmost care in protecting and conserving the ecosystem of mountain region. Prior assessment of environmental impact and risk assessment as well as factoring in the outcome of such analysis in the design and implementation of development projects is the very basis of grant of environmental clearance to such projects.

The EIA Notification 2006 provides for assessment of environmental impacts taking into account the location of the Project which includes studies and analysis related to slope-stabilization, erosion potential assessment, wildlife diversity, etc for highway projects and dam break analysis, geological and seismo-tectonic details, catchment area treatment plan, protection of landslide areas/ vulnerable zone, greenbelt development, muck disposal plan, early warning system etc for hydro projects. Study of the aforesaid and other related factors in the context of specific projects forms the basis for preparation of the Environmental Impact Assessment/Environmental Management Plan.

Project specific conditions related to safety measures are also prescribed in the Environment Clearances like Early Warning Telemetric system, drilling and blasting after obtaining required approvals from Competent Authorities, Emergency preparedness plan, Disaster Management Plan, stabilization of muck disposal sites, catchment area treatment plan, rim plantation, pasture development, nursery development etc.

In order to protect the fragile Himalayan mountains and to preserve its flora and fauna, number of precautionary steps are incorporated in the environmental clearances.

Projects involving forest land require Forest Clearance under the Forest (Conservation) Act, 1980. Whenever a proposal for diversion of forestland is received, it is examined and due diligence is exercised to avoid the use of forest land, or to keep it bare minimum. In cases where it is unavoidable, the forest area is allowed to be diverted, subject to certain conditions including the Compensatory Afforestation (CA) and payment of Net Present Value (NPV). Wherever necessary, the additional mitigation measures in the form of Soil and Moisture Conservation works, Wildlife Management plan etc. are also stipulated on case-to-case basis.

- (b) and (c) The Ministry of Environment, Forest and Climate Change through its Autonomous Institute G.B. Pant National Institute of Himalayan Environment has carried out climatic and forest vulnerability studies and has prepared climate change vulnerability assessment framework in the Indian Himalayan Region (IHR).

In the context of natural disaster, the National Disaster Management Authority (NDMA) has issued Guidelines titled “Management of Glacial Lake Outburst Floods (GLOFs)” in October 2020, which inter-alia deals with Early Warning Systems.

Further, in order to mitigate the impacts of climate change in the Himalayan region, the Government is implementing the National Mission for Sustaining the Himalayan Ecosystem (NMSHE) under the National Action Plan on Climate Change (NAPCC). As part of NMSHE, six thematic task forces anchored around six lead institutions have been set up. These institutions are undertaking studies to assess the health of Himalayan ecosystem in the areas of natural & geological wealth, water, ice, snow, including glaciers, micro flora & fauna, wildlife & animal population, forest resources & plant biodiversity and agriculture. The State Climate Change Cells (SCCCs) have been established in 11 Himalayan states to undertake studies on climate change risk and vulnerability assessment, capacity building and public awareness.

In addition, the Geological Survey of India (GSI) has several scientific investigation programs on natural disasters like landslide, earthquake in different parts of the country including Himalayan region and the output of these studies are helpful for studies on vulnerability of the Himalayan states.

The Ministry of Earth Sciences (MoES) has also commissioned four new Doppler Weather Radars (DWRs) at Srinagar, Sonamarg, Kufri, and Mukteshwar to provide information on severe weather events and support disaster management authorities.

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