

**GOVERNMENT OF INDIA  
HOME AFFAIRS  
LOK SABHA**

UNSTARRED QUESTION NO:2235

ANSWERED ON:10.03.2015

DISASTER MITIGATION MEASURES

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**Will the Minister of HOME AFFAIRS be pleased to state:**

- (a) whether any study has been conducted to forecast natural calamity in the Himalayan region;
- (b) if so, the details thereof;
- (c) whether the Government has formulated any plan to tackle disastrous calamity like the one that occurred in Kedarnath and Jammu & Kashmir recently; and
- (d) if so, the details thereof?

**Answer**

MINISTER OF STATE IN THE MINISTRY OF HOME AFFAIRS (SHRI KIREN RIJU)

(a) to (d) As per the National Disaster Management Policy, the primary responsibility of disaster management rests with the States. Improvement of disaster mitigation and preparedness system is a continuous and evolving process of governance. Disaster Management Act, 2005 provides for institutional mechanisms for drawing up and monitoring the implementation of the disaster management plans, which includes coordinated and prompt response to any disaster situation in the country and requires holistic measures by various wings of Government for prevention, mitigation and for minimising the effects of disasters. As a part of this process, the India Meteorological Department (IMD) is setting up Doppler weather radars to strengthen their advance warning capabilities to provide the timely early warning of extreme weather conditions to tackle disaster at national and State levels in Himalayan region.

The Himalayan regions are mainly affected by the heavy rainfall leading to flash flood/ floods, landslides, thunder storm and snowfall etc.. IMD has informed that they have established Meteorological Centres at Srinagar, Simla, Dehradun, Lucknow, Patna, Gangtok, Itanagar and Agartala to issue weather forecasts and warnings in addition to the warning issued by Headquarter at New Delhi, and Regional Meteorological Centres at Delhi, Kolkata and Guwahati. IMD has established network of various observatories in the regions for monitoring the weather and its forecast.

IMD has also established a developed 24 X 7 weather monitoring & forecasting system in the country for providing weather facilities to Defence Personnel by establishing specialised observatories in the border areas of Jammu & Kashmir.

IMD follows a Standard Operation Procedure (SOP) for issue of heavy rainfall warnings. IMD is currently providing 7 day weather forecast and warnings specially for natural calamities in the States of Himalayan region. In addition, 7 days forecast for the districts and important locations across the Himalayan States is also being issued by IMD.

IMD has sound techniques (including Doppler Weather Radar (DWR), Automatic Weather Stations (AWS), satellite) to observe and global & regional Numerical Weather Prediction Models to predict weather upto 5 days.

With the present network of DWR, the heavy to very heavy rainfall events associated with mon- soon are captured. The DWR installed at inland stations helps in nowcast of extreme weather events like thunder-squalls, heavy spell of rain etc. over and around the places where DWRs are installed.

The observational network and forecasting techniques have been upgraded under modernization programme of IMD. Further up gradation is taken up through Integrated Himalayan Project and Phase-II of modernization Programme and Severe Weather Forecasting Project etc.

In order to improve and provide effective and user specific mountain meteorological service. IMD has a plan to install state-of-the-art equipments like DWRs, Micro Rain Radars (MRR) and Compact Severe Weather Detection Radar Systems (CSWDRS) in the Himalayan region including States of Jammu & Kashmir, Himachal Pradesh and Uttarakhand.

Implementation of this project will help to accurately identify various weather systems affecting the region and provide better weather forecasts and warnings. With the availability of additional observational network in the remote mountainous terrain, it will in turn, help in further improving the mountain meteorological services, in particular for helicopter operations. Improved data collection, forecasts and

warnings in respect of heavy precipitation/cloud bursts will help many sectors like army operations, agriculture, tourism, roads and communications, power generation, water management, environmental studies and general public. These, also will help in disaster preparedness and mitigation.