

GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION NO. 360
ANSWERED ON 28/11/2024

DOPPLER WEATHER RADAR

360. DR. ASHOK KUMAR MITTAL:

Will the Minister of **EARTH SCIENCES** be pleased to state:

- (a) whether the installation of 10 X-Band Doppler Weather Radars (DWRs) in the North-eastern States and Himachal Pradesh has faced delays, and if so, the reasons for such delays;
- (b) whether the current weather monitoring infrastructure in these regions has been insufficient in accurately predicting extreme weather events, if so, the reasons therefor;
- (c) the details of the steps taken alongside radar installation to improve disaster awareness in these regions, and if not, the reasons therefore; and
- (d) the expected timeline for the completion of these radars, and how Government will ensure their effective maintenance and use in these vulnerable areas?

ANSWER

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

- (a) The installation of 10 numbers of X-Band Doppler Weather Radars (DWRs) in the Northeastern States is as per the schedule. However, the installation of X-Band DWRs in Murari Devi and Jot in Himachal Pradesh faced slight delays and deviations from timelines due to the pandemic. Also, since both these sites in Himachal Pradesh were forest lands, the clearance process was quite long, involving Stage-1 and Stage-2 clearance from the Forest Department and final clearance from the Hon'ble Supreme Court, which took a few months.
- (b) No. India Meteorological Department (IMD) established an observation network, including surface, upper air, Automated Weather Station (AWS), Automatic Rain gauge Station (ARGs), DWRs, etc. Satellite observations by Indian and international agencies continuously provide seamless weather information over the Indian region, including Northeastern States and Himachal Pradesh. Moreover, IMD uses all observations for accurate weather analysis and high-resolution numerical weather prediction (NWP) modeling to generate seamless forecasts covering all time scales.
- (c) IMD uses a state-of-the-art dissemination system to share all severe weather information and early warnings with disaster management authorities and the general public through various platforms/channels for necessary preparedness and to support mitigation measures. It includes social media, Common Alert Protocol, Mobile Apps, WhatsApp, and APIs. As a result, the vulnerable population gets evacuated from the damage-prone areas on time to safe shelters, thereby reducing the human death toll to a bare minimum.

- (d) The expected completion timeline of 10 DWRs in the Northeastern region and Himachal Pradesh is by October 2026. All these DWRs are being procured with a 3-year warranty from the vendor and a seven-year comprehensive annual maintenance contract for effective and timely maintenance of these high-end systems in remote areas as well. Trained officers and IMD staff shall operate these DWRs.
