GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION NO. 1320
ANSWERED ON 30/07/2026

DOPPLER RADAR COVERAGE IN LAHAUL AND SPITI AND KINNAUR

1320. SHRI HARSH MAHAJAN:

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

(a) whether Government has commissioned the X-Band Doppler Weather Radar sanctioned for Lahaul and Spiti district since its procurement was announced and if so, the date of its commissioning;
(b) if not, the details thereof along with the revised timeline for commissioning;
(c) whether Government proposes to extend similar dedicated radar or Automatic Weather Station coverage to Kinnaur and other cloudburst-affected districts of Himachal Pradesh under Mission Mausam and if so, the details and timeline thereof; and
(d) the steps being taken by Government to close the monitoring gap in remote hill blocks where the nearest weather station to recent disaster sites has been reported to be several kilometres away?

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

(a)-(b) Despite sustained efforts by the India Meteorological Department (IMD), in coordination with the State Government and other Central Government agencies, no suitable site has been identified in the Lahaul and Spiti Valley for the installation of an X-Band DWR due to severe beam blockage, which would significantly hamper effective weather surveillance. Following the expiry of the project timeline, the proposed DWR for the site was not established at that location, and the same DWR was subsequently deployed at another suitable site in the country. Currently, the State has three operational X-Band Doppler Weather Radars located at Kufri, Jot, and Murari Devi.

(c) The India Meteorological Department (IMD), under the Ministry of Earth Sciences, has established a network comprising 24 Automatic Weather Stations (AWSs), 4 Agro-Automatic Weather Stations (Agro-AWSs), and 66 Automatic Rain Gauge Stations (ARGs) in Himachal Pradesh to support weather monitoring and observational activities. In addition, the State is covered by 135 rain gauges under the district-wise and block-wise rainfall monitoring schemes to support rainfall monitoring. At present, 10 AWSs and ARGs are operational in the districts of Lahaul & Spiti and Kinnaur in Himachal Pradesh. The details of AWSs & ARGs installed in the districts of Lahaul and Spiti and Kinnaur are given in the table below:

S. No.	Station Name	District	Latitude (ºN)	Longitude (ºE)	Elevation (m)	Type of Station
1	Reckon	Kinnaur	31.5386	78.2767	2304	AWS
2	Keylong	Lahaul & Spiti	32.5719	77.0353	3119	AWS
3	Kukumsher	Lahaul & Spiti	32.7003	76.6885	2627	AWS
4	Tabo	Lahaul & Spiti	32.0915	78.3851	3262	AWS
5	Kalpa	Kinnaur	31.54	78.25	2885	ARG
6	Leo	Kinnaur	31.88	78.13	4988	ARG
7	Moorang	Kinnaur	31.6	78.4412	2291	ARG
8	Pooh	Kinnaur	31.7608	78.5829	2745	ARG
9	Sangla	Kinnaur	31.43	78.25	2563	ARG
10	Sumdho	Lahaul & Spiti	32.0695	76.5988	1096	ARG

(d) The Government, through the India Meteorological Department (IMD), under the Ministry, has undertaken several measures to strengthen the weather monitoring network and forecasting systems in response to the increasing frequency and intensity of extreme weather events across the country, including remote and hilly regions, based on operational requirements, technical feasibility, and resource availability. Further, the Government has adopted advanced, state-of-the-art techniques, including high-performance computing (HPC) facilities, to support high-resolution numerical weather prediction (NWP) models, observational systems, and artificial intelligence-enabled forecasting tools, thereby improving the accuracy of weather monitoring and forecasting and associated extreme weather events. Currently, the Ministry of Earth Sciences (MoES) has a weather observation network comprising manual observatories, AWSs, ARGs, Agro-AWSs, DWRs, upper-air observatories, and satellites to monitor weather and support NWP models for weather forecasting and extreme weather events across the country, particularly in vulnerable and remote areas.

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