

**GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
LOK SABHA  
UNSTARRED QUESTION NO. 3870  
TO BE ANSWERED ON WEDNESDAY, 18<sup>TH</sup> DECEMBER, 2024**

**OROGRAPHIC FACTORS AFFECTING SNOWFALL IN MOUNTAINS**

3870. SHRI ADITYA YADAV:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the Indian Meteorological Department (IMD) addresses the local orographic factors affecting snowfall in mountains;
- (b) if so, the details of the initiatives that are proposed to be taken by the Government including training by IMD scientists to the local students familiar with the region's ecology and climate conditions and recruiting them into their scientific fold; and
- (c) if not, the reasons therefor?

**ANSWER**

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

- (a) Yes. India Meteorological Department (IMD) provides forecasts based on global and regional models, and all these models consider the local orographic factors.
- (b)-(c) Scientists from the ministry deliver lectures and hold workshops and science exhibitions at various institutes, universities, colleges, and schools. Local students from across institutes, universities, colleges, and schools are also provided with hands-on training in various fields of meteorology, including instruments, weather forecasting, and climate studies, at offices situated in the region towards human resource development and training manpower in the area. In addition, post-graduate & PhD students of relevant fields are also provided support for research & dissertations by the local offices. The Ministry of Earth Sciences (MoES) is continuously endeavoring to achieve better accuracy in weather forecasting in the country, including the mountain regions.

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