GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION NO. 2873
TO BE ANSWERED ON WEDNESDAY, 17TH DECEMBER, 2025

EARLY WARNING SYSTEM IN UTTAR PRADESH

†2873. SHRI ADITYA YADAV:

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether the Government has made proper use of meteorological and geological data to reduce the risk of disasters like floods, droughts and extreme climate events in the Country including Badaun district of Uttar Pradesh;
(b) if so, the details of projects and early warning systems implemented or proposed by the Government to protect agriculture and vulnerable communities from climate hazards in the Country including Badaun district of Uttar Pradesh, and
(c) if not, the reasons for inadequate disaster preparedness and the strategy of the Government to strengthen the applications of geological science for sustainable development in Badaun district of Uttar Pradesh?

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

(a)-(b) Yes. Government has been using meteorological and geological data to reduce the risk of disasters like floods, droughts, and extreme climate events in the country, including Badaun district of Uttar Pradesh. To minimize the adverse impacts of various disasters and extreme climate events in the country for agriculture, India Meteorological Department (IMD) runs a scheme, viz. Gramin Krishi Mausam Sewa (GKMS) to render weather forecast-based operational Agrometeorological Advisory Services (AAS) involving several leading organizations such as Indian Council of Agricultural Research (ICAR), State Agriculture Universities (SAUs), Indian Institute of Technology (IIT), state agriculture departments, NGOs, etc., for the benefit of the farming community. This scheme assists farmers in making informed decisions regarding their day-to-day agricultural operations for minimizing crop damage and losses due to extreme weather events, like heavy rainfall, floods, drought, etc., and climate hazards in the country, as well as taking advantage of benevolent weather and climatic conditions.

Under GKMS, medium range weather forecast for rainfall, maximum and minimum temperature, Relative humidity, cloud cover, wind speed and direction at district and block level for the next 5 days, and also the subsequent week meteorological sub-division wise rainfall and temperature forecast are generated by the IMD. Based on realized rainfall and other weather parameters along with weather forecast issued by IMD, AMFUs prepare Agromet Advisories, under various weather conditions, on every Tuesday and Friday for the districts under their jurisdiction and communicate to the farmers for facilitating them to make informed decisions on agricultural operations such as selection of type of crops and varieties, appropriate time for sowing, harvesting, fertilizer and irrigation application etc.

Along with the biweekly bulletins, near real-time daily weather forecast and nowcast information are also disseminated to the farmers by Regional Meteorological Centers (RMCs) and Meteorological Centers (MCs) of IMD. Impact-based forecasts (IBFs) for agriculture are also being prepared by AMFUs based on the severe weather warnings for different districts of various States and UTs across the country issued by the National Weather Forecasting Centre (NWFC), New Delhi, and RMCs and MCs of IMD.

Out of 130 AMFUs, one AMFU, located at Sardar Vallabhbhai Patel University of Agriculture and Technology (SVPUA&T), Meerut prepares Agromet Advisories, under various weather conditions, on every Tuesday and Friday in English as well as in Hindi for Saharanpur, Muzaffarnagar, Meerut, Ghaziabad, Bulandshahr, Aligarh, Bareilly, Budaun, Shahjahanpur, Pilibhit, Bijnor, Moradabad, Rampur, Farrukhabad, Baghpat, Gautam Buddha Nagar, Amroha, Shamli, Hapur, and Sambhal districts, which consists of crop-specific advisories for major crops of the districts. The centre communicates real-time weather forecasts and biweekly agromet advisories to the farmers for facilitating them to make informed decisions on agricultural operations such as selection of type of crops and varieties, appropriate time for sowing, harvesting, irrigation, fertilizer application, etc. through a multichannel dissemination system like print and electronic media, Doordarshan, radio, internet, WhatsApp, YouTube, etc. In addition to this, the unit also performs other GKMS activities such as recording of weather observations from the conventional agromet observatory, preparation and dissemination of IBFs for agriculture during severe weather warnings. Moreover, Panchayat-level weather forecast for Gram Panchayats in the country, including Badaun district, is accessible through digital platforms such as e-Gramswaraj (https://egramswaraj.gov.in), Meri Panchayat app, e-Manchitra of MoPR, and Mausamgram of IMD, MoES (https://mausamgram.imd.gov.in).

Apart from the above, with the advancement of ICT, farmers access weather information, including alerts and related agromet advisories specific to their districts through the mobile App viz., 'Meghdoot' launched by the Ministry of Earth Sciences, Government of India. These weather details are also accessible to farmers through the 'Mausam' App of IMD. To extend real-time weather updates to farmers for taking appropriate decisions on farm operations, AMFUs also use Social media platforms like 'WhatsApp', 'Facebook', 'You Tube', etc., to disseminate weather forecasts, severe weather warnings, and agromet advisories. Additionally, IMD has integrated its services with IT platforms of 24 state governments, including Uttar Pradesh, allowing farmers to access information in both English and regional languages.

To enhance the reach and effectiveness of the GKMS services, IMD is actively engaging with various stakeholders, including state agriculture departments, NGOs, and SAUs, to create awareness among the farming community by organizing Farmers' Awareness Programs (FAPs) in collaboration with AMFUs across different regions of the country. Additionally, IMD, along with experts from AMFUs, actively participates in Kisan Melas, Farmers' Day Programmes, and field visits, facilitating direct interaction with farmers to promote the utilization of these weather-based agricultural advisory services, thereby maximizing their benefits for the farming community.

(c) Does not arise.

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