

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE

LOK SABHA
UNSTARRED QUESTION NO. 316
TO BE ANSWERED ON THE 2ND DECEMBER, 2025

AI-BASED MONSOON FORECASTING SCHEME

316. SHRI SURESH KUMAR KASHYAP:
SMT. MALA RAJYA LAXMI SHAH:
SHRI DULU MAHATO:
DR. RAJESH MISHRA:
SHRI RAJKUMAR CHAHAR:
SHRI DINESHBHAI MAKWANA:

Will the Minister of AGRICULTURE AND FARMERS WELFARE कृषि एवं किसान कल्याण मंत्री be pleased to state:

- (a) the details of the Artificial Intelligence (AI)-based Monsoon Forecasting Scheme implemented by the Government along with the total number of farmers who have been reached out under this scheme;
- (b) the details of the AI model used in the said scheme, the partner organizations and the criteria for evaluation of accuracy thereof;
- (c) whether the impact of this programme on crop planning and risk management in Kharif-dominated areas has been evaluated;
- (d) if so, the findings thereof;
- (e) whether the Government is providing financial assistance to the farmers of Sidhi Lok Sabha Constituency who have suffered significant losses of their paddy, black gram, green gram and pigeon pea crops due to unseasonal rains;
- (f) if so, the number of farmers identified in this regard along with the details thereof; and
- (g) the steps being taken to cover more States under the said scheme and integrate AI-based forecasting with existing agricultural advisory platforms such as M-Kisan?

ANSWER

THE MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE
कृषि एवं किसान कल्याण राज्य मंत्री (SHRI RAMNATH THAKUR)

(a) to (g): An AI-based pilot was conducted in collaboration with the Development Innovation Lab- India on agriculturally relevant local monsoon onset forecasts across parts of 13 states in India for Kharif 2025. An open source blended model was used, including Google's NeuralGCM, the European Centre for Medium-Range Weather Forecasts'

(ECMWF) Artificial Intelligence Forecasting System (AIFS), and historical rainfall data from 125 years from the India Meteorological Department (IMD).

The probabilistic forecasts predicted only the local onset of monsoon, which is essential for taking a decision on the date of sowing of crops. Local monsoon onset forecasts were sent via SMS through the M-Kisan portal to 3,88,45,214 farmers in 13 states in five regional languages- Hindi, Odia, Marathi, Bangla, and Punjabi. No financial assistance was provided for this pilot.

Telephonic farmer feedback surveys were conducted in Madhya Pradesh and Bihar through Kisan Call Centres after the forecasts were sent. The survey revealed that 31–52% farmers adjusted their planting decisions, primarily through changes in land preparation and sowing timing, which included crop and input choice.
