GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION No. 3878
TO BE ANSWERED ON MONDAY, APRIL 02, 2018

PROGRESS IN WEATHER FORECASTING

3878. SHRI ANIL DESAI:

Will the Minister of EARTH SCIENCES be pleased to state:

(a)   whether India has made substantial progress in its weather forecasting system;

(b)   if so, the reasons as to why the benefits of this progress still elude farmers and other citizens in the country and is restricted only to the district level; and

(c)   the steps the Ministry is taking to cover all the districts in the country, particularly, coastal districts of Andhra Pradesh and Maharashtra, where crops have been damaged beyond imagination?

ANSWER
MINISTER FOR MINISTRY OF SCIENCE AND TECHNOLOGY
AND MINISTRY OF EARTH SCIENCES
(DR. HARSH VARDHAN)

(a)   Yes Sir. The Ministry of Earth Sciences (MoES) has taken lot of important initiatives for considerable progress in prediction of monsoon and its variability in different time scales. One of the most important achievements was the successful implementation of the "Monsoon Mission" to improve monsoon prediction & weather forecasts. The first phase of the Monsoon Mission was completed successfully in 2017, with lot of achievements, including setting up of very advanced dynamical prediction systems for Seasonal prediction; Extended range prediction (for next 20 days) and Short range prediction (up to 8 days). The seasonal prediction skill of Indian monsoon using dynamic models has also improved considerably. In addition to above, IMD uses state of art statistical models developed through in-house research and development work for Long Range Forecast of Monsoon.

(b)   The Gramin Krishi Mausam Seva (GKMS) of India Meteorological Department (IMD) is rendered twice a week in collaboration with State Agricultural Universities (SAUs) and Institutions of Indian Council of Agricultural Research (ICAR). Under this, district level weather forecasts for next 5-days in respect of Rainfall, maximum temperature, minimum temperature, wind speed, wind direction, relative humidity and clouds, weekly cumulative rainfall forecast, and crop specific advisories are provided to farmers. The GKMS of IMD has been successful in providing the crop specific advisories to the farmers through different print/visual/Radio/ IT based media including short message service (SMS) and Interactive Voice Response Service (IVRS) facilitating for appropriate field level actions.

As per the recent National Council of Applied Economic Research (NCAER) report of 2015, farming community of the country is using the above mentioned GKMS service products for critical farm operations, Viz., i) Management of sowing (Delayed / early onset of rains); ii) Changing crop variety (Delay in rainfall); iii) Spraying pesticides for disease control (occurrence of rainfall); iv) Managing Irrigation (Heavy rainfall Forecast). According to a survey, the weather forecast based Agromet Advisory Service (AAS) of IMD is found to be reliable by more than 93% of surveyed farmers and 95% of the farmers say that forecasts of IMD have improved during last 2-4 years. Further, most of farmers felt that there had been an improvement in the timeliness of the issuance of AAS bulletins of the weather forecasts.

At present, 22.7 million farmers in the country receive the Agromet Advisories through SMS directly.

(c)   IMD has already covered 636 districts in the country for providing Agromet Advisories including coastal districts of Andhra Pradesh and Maharashtra. IMD in collaboration with Agromet Field Units (AMFUs) at Tirupathi, Guntur, Anakapalli and Chintapalli covers the coastal districts of Andhra Pradesh and AMFUs at Dapoli and Mulde covering the coastal districts of Maharashtra. In addition to that, IMD is planning to establish District Agromet Units (DAMUs) at Krishi Vigyan Kendras (KVKs) at coastal districts of Andhra Pradesh and Maharashtra to generate granular Agromet Advisories and reach out all the farmers to save the crops from weather aberration and ultimately increase the productivity of the crops.

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