

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION No. 4078
TO BE ANSWERED ON WEDNESDAY, AUGUST 10, 2016**

WEATHER FORECASTING SYSTEM

4078. SHRI C. MAHENDRAN:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the weather forecasting system is functioning properly and reliable information is being passed on to farmers regarding the climate change well in advance;**
- (b) if so, the details thereof;**
- (c) whether the farmers are satisfied in this regard;**
- (d) if so, the details thereof; and**
- (e) whether the Government is conducting any researches in this line and if so, the details thereof?**

ANSWER

**MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND
MINISTRY OF EARTH SCIENCES
(SHRI Y. S. CHOWDARY)**

- (a) Yes Madam. India Meteorological Department (IMD) under the project Gramin Krishi Mausam Sewa (GKMS) provides 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.**
- (b) Crop specific advisories under GKMS of IMD through Agriculture Field Monitoring Unit (AFMU) are rendered twice a week in collaboration with State Agricultural Universities (SAUs), institutions of Indian Council of Agricultural Research (ICAR), IITs etc. Such advisories are formulated based on district level weather forecast for next 5-days in respect of:**
 - Rainfall**
 - maximum temperature, minimum temperature**
 - wind speed, wind direction**
 - relative humidity and cloud/Cover**
 - weekly cumulative rainfall forecast**

Weather forecast based agro meteorological advisories are disseminated in vernacular language through Kisan portal launched by the Ministry of Agriculture and also under public private partnership. At present, the GKMS products are disseminated through SMS and IVRS to 19.1 million farmers in the country.

(c) Yes Madam.

(d-e) As per the recent National Council of Applied Economic Research (NCAER) report, farming community of the country is using the GKMS service products of IMD for critical farm operations Viz. i) Management of sowing (Delayed 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 agriculture specific forecasts of IMD have been found reliable by more than 93 percent of Indian formers. 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 weather forecasts. Among various components of weather elements, rainfall component has the highest priority. Concurrently, with the implementation of District Level AgroMeteorological Advisory services, India has seen improved agriculture performance in the rain fed farming (Covers 60% of arable land). Incremental profit due to GKMS is assessed at 25% of the net income.

Potential Annual Economic profit by using GKMS by 24% of the community cultivating 4-principle crops (wheat; paddy; sugarcane; cotton) in 2010 was assessed at Rs. 38,463 Crores (when 2.0 million farmers were subscribed to SMS service), the annual profit rose to Rs.42,000 Crores in 2015 (11.5 million farmers have been subscribed to SMS service), Top11- Principal Crops was assessed as 56,310 Crores and top 28- Principal Crops was assessed as Rs. 67,000 Crores in 2015. The study suggests that GKMS has the potential of generating net economic benefit up to Rs.3.3 lakh crores on the 4-principal crops alone when Agro-Meteorological advisory is fully utilized by 90.3 million dependent households.
