

**GOVERNMENT OF INDIA**  
**MINISTRY OF EARTH SCIENCES**  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 1160**  
**TO BE ANSWERED ON WEDNESDAY, 14<sup>TH</sup> DECEMBER, 2022**

**WEATHER INFORMATION SYSTEM**

1160. SHRI BIDYUT BARAN MAHATO:  
SHRI RAVINDRA KUSHWAHA:  
SHRI SUBRAT PATHAK:  
SHRI SHRIRANG APPA BARNE:  
SHRI RAVI KISHAN:  
SHRI DHAIRYASHEEL SAMBHAJIRAO MANE:  
SHRI SANJAY SADASHIVRAO MANDLIK:  
SHRI PRATAPRAO JADHAV:  
SHRI SUDHEER GUPTA:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the Government has set up two high level scientific panels to study advanced agricultural weather information system across the country and enable an assessment of crop yields in view of increasing extreme weather conditions and if so, the details thereof;
- (b) the details of the composition of the said two high level scientific panels;
- (c) whether the Government has set any time limit for the said panels to submit their reports and if so, the details thereof;
- (d) whether the country's first of four Inter governmental Panel on Climate Change (IPCC) report has been released;
- (e) if so, the details thereof along with the steps taken/being taken by the Government on the basis of the said report; and
- (f) the details of other measures being taken by the Government to counter changing monsoon, rising seas, deadlier heat waves, flooding etc. responsible for crop loss?

**ANSWER**

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

- (a) - (c) Yes Sir. Ministry of Agriculture & Farmers Welfare (MoA&FW) has set up following twocommittees to reduce the delay in crop loss/damage estimation and ensure timely settlement of claims by farmers :
- (i) Committee for nationwide implementation of technology-based crop yield estimation.
  - (ii) Committee for standardization and improvement of weather data infrastructure.

Both the committees will be headed by the Director of Mahalanobis National Crop Forecast Centre (MNCFC), under MoA&FW.

The committee will have representation from Maharashtra, Odisha, Andhra Pradesh and Rajasthan Government along with the experts from different departments and agencies of the Central Government.

The panel on yield estimation will submit its report within 45 days. It will prepare standard operating procedure (SOP) as well as enrol technology implementation partners (TIPs).

The panel on weather data infrastructure has been tasked to help MoA&FW in the creation of the proposed Weather Information Network Data System (WINDS), under which a system of automatic weather stations (AWS) and automatic rain gauges (ARG) will be implemented across India.

- (d)-(e) There is no country specific IPCC report available. However the challenges of climate change induced extreme weather events and natural calamities are handled in the best possible way by the India Meteorological Department (IMD) through timely weather warnings and climate forecasts to the entire nation and to various stake holders.
- (f) India Meteorological Department (IMD) runs an operational Agrometeorological Advisory Services (AAS) viz., Gramin Krishi Mausam Sewa (GKMS) scheme for the benefit of farming community in the country. Under the scheme, medium range weather forecast at district and block level for next five days is generated and based on the forecast, 130 Agromet Field Units (AMFUs), located at State Agricultural Universities, institutes of Indian Council of Agricultural Research (ICAR) and Indian Institute of Technology (IIT) etc., prepare Agromet Advisories on every Tuesday and Friday for the districts under their jurisdiction and for the blocks of the district of their location and communicate to the farmers to take decision on day-to-day agricultural operations. AAS rendered by IMD is a step towards weather-based crop and livestock management strategies and operations dedicated to enhancing crop production and food security besides reducing crop damage and loss due to unusual weather.

After successful implementation of district level AAS, District Agromet Units (DAMUs) are being established at Krishi Vigyan Kendras (KVKs) in collaboration with ICAR to implement block level Agromet Advisory Services (AAS). Till date, 199 District Agromet Units (DAMUs) have been established at KVKs across the country under ICAR network and these DAMUs prepare district and block level Agromet Advisories based on district and block level weather forecasts for their respective districts and communicate to the farmers on every Tuesday and Friday. Block level weather forecast and Agromet Advisories aid the farmers in taking decision on day-to-day agricultural operations at micro-level. In addition to that, Impact based forecast (IBFs) for agriculture are also being prepared by AMFUs and DAMUs based on the severe weather warnings including Heavy Rainfall and Heatwaves / high temperatures for different districts of various States and UTs across the country issued by National Weather Forecasting Centre (NWFC), New Delhi and Regional Meteorological Centres (RMCs) and Meteorological Centres (MCs) of IMD.

IMD also monitors rainfall situation & weather aberrations and issues alerts & warnings to the farmers time to time under GKMS scheme. SMS-based alerts and warnings for extreme weather events along with suitable remedial measures are issued to take timely operations by the farmers. Such alerts and warnings are also shared with State Department of Agriculture for the effective management of calamity.

Agromet Advisories are disseminated to the farmers through multichannel dissemination system like print and electronic media, Door Darshan, radio, internet etc. including SMS using mobile phones through Kisan Portal and also through private companies under Public Private Partnership (PPP) mode. 43.37 million farmers in the country receive the Agromet Advisories through SMS directly. SMS through Kisan Portal launched by Ministry of Agriculture and Farmers' Welfare is not sent since June 2021. Presently SMS advisories are being sent only during extreme weather events like cyclone, deep depression etc. through Kisan Portal. However, SMS to the farmers through private companies is continued as earlier.

With the advancement of ICT, Farmers access the weather information including alerts and related agromet advisories specific to their districts through the mobile App *viz.*, 'Meghdoot' launched by Ministry of Earth Sciences, Government of India. These weather details are also accessible by farmers through another App 'Kisan Suvidha', launched by Ministry of Agriculture & Farmers Welfare. Also, a few AMFUs have developed mobile Apps to facilitate quick dissemination of agromet advisories to the farmers of their region.

Social media is also used for quicker dissemination of forecast and advisories to the farmers. At present farmers of 1,21,235 villages in 3,636 Blocks have been covered through 16,262 WhatsApp groups. State Agriculture Department officials of District and Block level are also included in these WhatsApp groups. Continuous efforts are being made to increase the number of farmers and villages covered to disseminate Agromet advisories using WhatsApp.

In addition to above, advisories are also being circulated through a number of Facebook pages created by AMFUs and DAMUs. Initiative on collaboration with State Government has been taken up for integration of weather forecast and Agromet advisories with state government mobile apps and websites. The integration has been completed for Bihar, Chhattisgarh, Gujarat, Haryana, Madhya Pradesh, Meghalaya, Nagaland, Odisha, Rajasthan, Tamil Nadu and Uttarakhand for the benefit of the farmers of these states.

IMD is also taking continuous efforts to popularize the services among the farming community by organising Farmers' Awareness Programmes (FAPs) in collaboration with AMFUs and DAMUs in various parts of the country. IMD along with the experts from AMFUs and DAMUs also participate in KisanMelas, Farmers' Day etc. to create awareness about the services, so that more farmers get benefitted.

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