Dissemination through mobile apps

The mobile App, Meghdoot, a joint initiative of India Meteorological Department (IMD), Indian Institute of Tropical Meteorology (IITM) and ICAR aims to deliver critical information to farmers through a simple and easy to use mobile application. Weather information and Agromet advisories are being disseminated through various other apps also.



Agrimet Division's website (www.imdagrimet.gov.in)



- •A web portal of Agrimet Division has been operational since 2011.
- Website has also been migrated to cloud server enabling quicker and broader access to large number of users.

Monitoring of GKMS through Dashboard



Evaluation of performance of GKMS

Key findings of impact study conducted by National Centre for Applied Economic Research (NCAER) Study in 2019 for estimating the economic benefits of advisory service to farmers during April 2018 - March 2019 are-

- 98% of surveyed farmers made modifications to at least one
 of the nine critical practices based on the weather advisories. 31% farmers made modifications on all nine critical
 practices.
- Average annual income of farming households which adopted no modification worked out to be Rs. 1.98 Lakh; Rs. 2.43 Lakh for those who modified 1 to 4 practices; Rs. 2.45 Lakh for those who modified 5 to 8 practices and Rs. 3.02 Lakh for those who adopted all the nine changes.
- 80% of the farmers receiving information on high resolution weather events reported to have reduced losses.
- With an estimated annual income gain of Rs. 12,500 per agricultural household belonging to Below Poverty Line category in the rain-fed areas, due to the improvement in weather forecasts, the total income gain is estimated at Rs.

New Initiative to Augment GKMS

- Operationalization of existing Block level AAS
- Integration of state govt. network weather observation data
- Improved weather information for Agriculture
- Development of Crop weather calendar and Pest weather calendar in collaboration with CRIDA and SAUs to automate the advisory
- Geospatial analysis of soil moisture and soil temperature using Agro-AWS network and other water balance components
- Forecasting pest & disease infestation using Forewarning models with help of ICAR Institutes
- Dissemination of advisory to the farming community through CSCs and DoT network
- Development of a cloud-based portal with MoA&FW/ ICAR for dissemination of weather based agro advisory
- Development of Agri-GIS for dissemination of District/Block

Contact Us: Dr. K.K Singh Scientist-G & Head, AASD India Meteorological Department New Delhi - 110003 Email ID: kksingh2022@gmail.com Phone No. (O): 011-24621710





Agromet Services of IMD under Gramin Krishi Mausam Sewa (GKMS)



Brief history of Agromet Services in India

- IMD started weather services to Farmers in the year 1945.
- · Agromet Advisory Services (AAS) started in 1976.
- Integrated Agromet Advisory Services (IAAS) was started in collaboration with National Centre for Medium Range Weather Forecasting (NCMRWF) in 2006 at district level through 130 Agromet Field Units (AMFUs).
- IAAS launched as Gramin Krishi Mausam Sewa in 2012.
- IMD in active collaboration with Indian Council of Agricultural Research (ICAR), State Agricultural Universities (SAUs), Indian Institute of Technology (IITs) and other institutes started Experimental block level advisory service in 2018.

Objectives & Component of Agromet Service

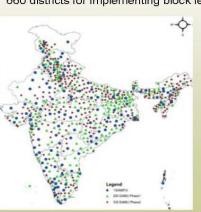


Gramin Krishi Mausam Seva (GKMS) overview



AAS network in GKMS

Present and proposed IMD-AAS network AAS network at 660 districts for implementing block level AAS.

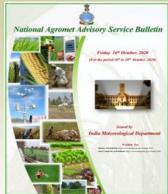


- Existing 130
 AMFUs Network
- 530 DAMUs at ICAR-Krishi Vigyan Kendras (KVK) in phase manner.

Block level AAS Bulletin

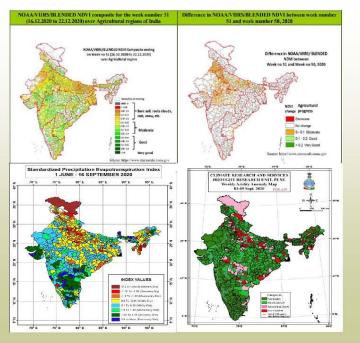


National level AAS Bulletin



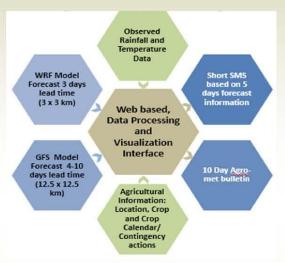
Generation of Agromet Products

- Agromet products viz. Normalized Difference Vegetation Index (NDVI), Standardized Precipitation Index (SPI), Vegetation Condition Index (VCI), Temperature Condition Index (TCI), soil moisture etc.
- Spatial distribution of weather parameters (Daily and weekly).



Agromet Decision Support System (https://agromet.imd.gov.in)

A dedicated portal-Agromet DSS has been developed to make information exchange among concerned organizations more objective, timely and effective leading to improvement in the quality of service. Agromet-DSS facilitates the scientists with customized tools to integrate weather and crop information to prepare Agromet advisories at finer scales in short time to serve farming community at micro level.



Dissemination

Agromet advisories are being provided at increased frequency through-

- SMS using mKisan portal of Ministry of Agriculture and Farmers' Welfare (MoA&FW).
- SMS through private companies under PPP mode like Reliance Foundation, Kisan Sanchar etc.
- Around 4.34 Crore farmers are directly benefitted by this service through SMS.
- Mobile app: Meghdoot App launched by Ministry of Earth Sciences (MoES).
- Websites of IMD, ICAR, SAUs, IITs, KVKs, Print & Electronic media including DoorDarshan, radio, internet etc.
- Kisan Call Centres
- Agricultural Technology Management Agency (ATMA), Self Help Group, Farmers club, Farmers Producer Organisation (FPOs)
- Extension Wings of State Department of Agriculture
- Social media