

Roles and Responsibilities of Agromet Observer under Gramin Krishi Mausam Sewa (GKMS) scheme

In order to implement block level Agromet Advisory Service (AAS) under Gramin Krishi Mausam Sewa (GKMS) scheme in the country, IMD along with ICAR has envisaged setting up of District Agromet Units (DAMUs) in the KVKs in addition to existing network of Agromet Field Units (AMFUs). While Technical Officer (TO)/SMS (Agrometeorology), posted in the AMFUs/DAMUs, has the pivotal role to implement the service, Agromet Observers also have inevitable roles and responsibilities not only in the areas of observations but also in executing other components of the service. Roles and responsibilities of Agromet Observers are given below:

1. Observatory Site and Weather Observations

- 1.1. General upkeep and maintenance of Agro-AWS observatory, working of all sensors and timely reporting and use of met data. Performing these tasks from time to time. Timely communication of impaired sensors and its retrieval (in consultation with IMD). To keep watch and maintain compound of observatory as per norms
- 1.2. Receive the training while installation of Agro-AWS and proactive maintenance
- 1.3. Ensure timely availability of observations on rainfall (DRMS rainfall and gridded rainfall with the priority to DRMS) and other available weather parameters through web-service on daily basis for preparation of AAS bulletins.
- 1.4. Assist SMS (Agromet) in processing and analysis of long term meteorological data (to be made available to the KVK by IMD) for the blocks in all meteorological applications and Agromet Advisory Services (AAS) bulletin preparation under GKMS.
- 1.5. Make Agro-AWS data (to be installed in due course) available for block AAS bulletin preparation. For remaining blocks, arranging available data from IMD for AAS bulletin preparation.
- 1.6. Record observations on occurrence of extreme weather events, viz. hail, fog, frost etc. and damage on agriculture to be reported on daily basis. IMD will provide format and method to record observations on occurrence of extreme weather events. Collecting information on occurrence of extreme weather events from other blocks through reliable source.
- 1.7. Record gravimetric observation on soil moisture at specified depths up to 1 meter (as per Agro-AWS soil moisture depths). Maintain and use soil moisture equipment- Augur etc, and Handheld soil moisture instrument. Compare manual soil moisture observations with Agro-AWS soil moisture observations. Deviations, if any, need to be noted and rectified immediately.
- 1.8. Assist SMS for execution of Annual Maintenance Contract of Agro-AWS, as per the terms of installation by the vendor with intimation to IMD.
- 1.9. Measure hydrophysical characteristics of soil in the vicinity of AWS site.
- 1.10. Record ORG observation (if installed) and report.
- 1.11. Collect weather / rainfall observations of State network on daily basis from block / District level Offices of State Government.
- 1.12. Assist SMS (Agromet) to compare AWS soil moisture data with observed values.

- 1.13. Record observation on phenophases of different crops grown at KVK farms/ nearby fields (close to AWS site) under guidance of SMS-Agromet to help in refining crop weather relation/ CWC and derive relation for remaining crops.
- 1.14. Store data set, once received at KVK, in structured format for further processing and analysis for their use in preparation of advisories. Enter all types of observation (weather and crop) in computer using PC based APP so that it becomes part of structured database. IMD & ICAR-ATARI will develop and provide APP.
- 1.15. Assist SMS in taking crop, pest & disease observations and supplying data to IMD for archival and other agencies, maintaining records.
- 1.16. Compile repository / database of observed data for all available blocks under jurisdiction.
- 1.17. Assist SMS in comparing block level weather data observed through Agro-AWS with district met data (available from IMD websites).
- 1.18. Involvement in manual observatory at the KVK (under consideration by IMD) for strengthening block weather data network.
- 1.19. Use of Agrimet website for data entry, as per requirements.

2. Weather Forecasts:

- 2.1. Assist SMS and ensure availability of block level weather forecast at DAMUs through web service on every Tuesday and Friday by 11 am.
- 2.2. Assist SMS in maintaining repository of block level forecast issued for all blocks.

3. Preparation of block level and district AAS Bulletins

- 3.1. Assist SMS to arrange the meeting of expert panel on Tuesday and Friday by 11.30 AM under chairmanship of PC consisting of all Subject Matter Specialists at KVKs, DAO and other extension agencies in the district. He will ensure the availability of all the ingredients required in AAS bulletin generation.
- 3.2. Ensure availability of observed weather data at block level and 5-day block level weather forecast.
- 3.3. Assist SMS in getting dynamic information on crop state and stage within the district from DAO, KVK and any other authentic source for advisory preparation. Real time pests and disease incidences in the blocks need to be obtained and considered in advisories.
- 3.4. Familiarise on use Agromet-DSS software of IMD for the preparation of AAS bulletins and other relevant software/ tools available/ developed in consultation with IMD to improve quality of bulletins.

4. Outreach and Dissemination of AAS Bulletins

- 4.1. Collection of farmers (block wise and village wise) data:
 - 4.1.1 Details of farmers
 - 4.1.2 Season wise crops
 - 4.1.3 Rainfed and irrigated (source of irrigation)
 - 4.1.4 Other means of livelihood
 - 4.1.5 Awareness of ongoing GKMS (if yes, source of information)

4.1.6 Weather (element wise) sensitive stages of crop/ livestock etc. and risk faced in the past (if possible, categorically quantify the risk based on farmers information)

- 4.2. Assist SMS / DAMU to enhance linkage with all concerned authorities, Agromet Field Unit (AMFU), Meteorological Centre of IMD in state capital, district and block level agricultural officers, eMedia, local newspaper, FPO, NGOs operating for farmers etc.
- 4.3. Assist SMS in strengthening extension channel of state govt through DAO, Block level Agriculture Officers up to village/ panchayat level.
- 4.4. Assist SMS in uploading on KVK/ ICAR/ IMD website.
- 4.5. Familiarise and use of mobile Apps like Meghdoot etc., and other relevant social media.
- 4.6. Involve in other means of broadcasting through local TV cable network, CSCs etc.
- 4.7. Assist SMS / DAMU in conducting Farmer Awareness Programmes (FAP) on weather and climate awareness at Block/ Panchayat/ villages and participate.
- 4.8. Collect and update farmers' database village wise for wider outreach.
- 4.9. Assist SMS for interaction with farmers, farmers' groups etc. for enhancing awareness.
- 4.10. Assist SMS in collection and analysis of feedback from the farmers on usefulness and further requirements from the service
- 4.11. Assist SMS in compilation of success stories.

5. Others

- 5.1. Observer has to work under close guidance of PC, KVK and SMS (Agrometeorologist).
- 5.2. Capacity Building
 - 5.2.1. Observer will receive short term training on Agro-AWS as part of "Preparation and dissemination of Agromet Advisories at Block level under Gramin Krishi Mausam Seva (GKMS) scheme".
 - 5.2.2. Observer will be required to attend similar trainings as indicated by IMD as and when required to enhance knowledge and skill.
- 5.3. Use of handheld instrument for soil moisture observations to enhance awareness among farmers about importance of soil moisture recording observation, etc.
- 5.4. Assist SMS in preparation of various reports and other weather and climate related document pertaining to GKMS.
- 5.5. Participation in the meeting / training relevant for AAS as notified by IMD and ICAR.
- 5.6. Assist SMS for the entry of all GKMS relevant data into real time monitoring dashboard (currently dashboard is under development).
- 5.7. Enter details of DAMU's static and dynamic information into "Dashboard" for realtime monitoring of work of DAMUs by Niti Ayog and other various Govt. Ministries and Departments.
- 5.8. Timely submission of inputs pertaining to GKMS of the locality as and when required.
- 5.9. Assist SMS in proper maintenance of all inventories, AMC etc, under GKMS.

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