

Weather Based, Farmer-Centric Agrometeorology



To reduce risks and improve agriculture productivity despite local climatic variations, crop and locale specific agro-advisories are provided to farmers based on weather forecasts and the particular crop's growth stage. The advisories emphasize environment-friendly integrated solutions that are within the farmers' capabilities, promote adaptive sustainable practices, help raise productivity and reduce costs. The delivery channels used are mobile handsets (SMS), on-site technical support, wall papers and public address systems. Particular attention is paid to mobile telephony (SMSs) since this enables a cost-effective dissemination of advisories to a large number of farmers in a timely manner.

Key Features

The Agro-meteorology service consists of 4 components that are interlinked:

- Acquisition of local weather data through 24 Automated Weather Stations, short range village level weather forecasts from the India Meteorological Department (IMD), and awareness creation of the impacts of weather variability on crops and livestock.
- Crafting of Agro-Advisories based on weather forecasts and Crop Calendars prepared in collaboration with the State Agricultural University (the MPKV), and their dissemination (twice a week) followed by feedback gathering.
- An Automated Content Management System (ACMS) that generates agro-advisories (AGRIMATE) and disseminates them using a User Profiling System (UPS).
- On site Capacity Building through Farmer Field Schools, On-site Knowledge, and Technology Transfer.

Legend

- 1.1 Met stations installed in project villages (24 with telemetry up-links)
- 1.2 Village youth trained to read the met-data. Information displayed on boards in public places.
- 1.3 Trainings on maintenance and security of weather stations conducted.
- 1.4 Community sensitized to likely weather outcomes and impacts on agriculture and alerted of need to undertake coping measures.

- 2.1 Hourly local Met-data sent via SMS/ GPRS to WOTR's servers.
- 2.2 Data "cleaned", verified and forwarded to IMD servers.

- 3.1 3-day village level weather forecasts received daily from IMD.
- 3.2 Unusual/ extreme weather events forecasts immediately disseminated to villages.

- 4.1 Whether forecasts from IMD fed into AGRIMATE (An Automated Crop Weather Calendar Software)
- 4.2 Indigenous knowledge and traditional agricultural practices of area referenced.
- 4.3 GIS data base containing details of farmer-wise. land, soil, water, farm resources and crops grown together with socio-economic data prepared.
- 4.4 In-house experts prepare weather-based, crop growth stage and locale specific agro advisories.

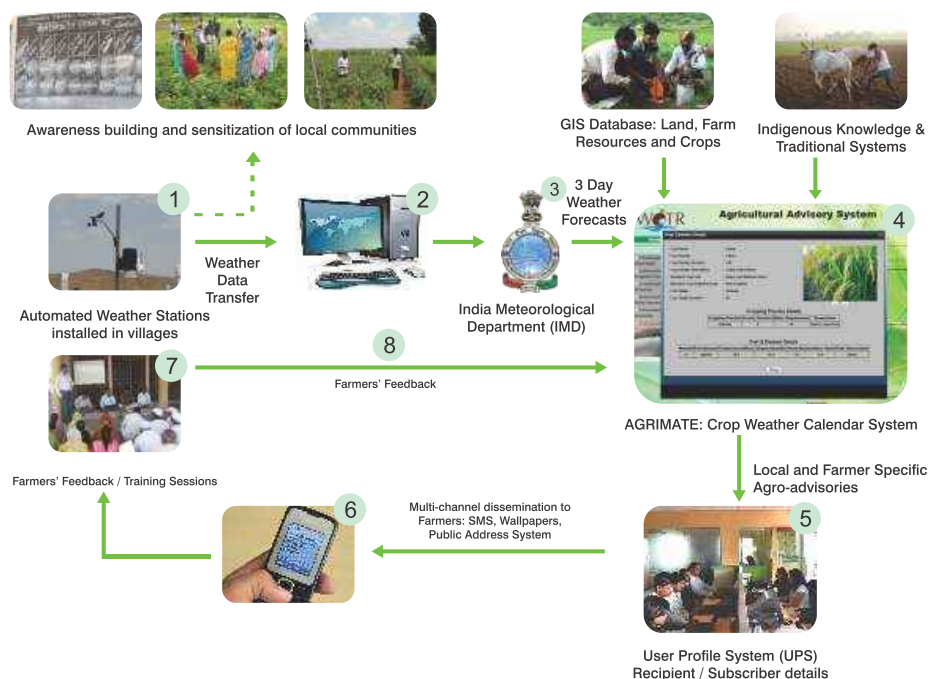
- 5.1 User Profiling System (UPS) matches the advisory with the farmer/ subscriber and disseminates the same through mobile SMSs in local language at least twice weekly or whenever required.

- 6.1 Multi-channel Advisories Distribution: SMSs, weekly wall-papers in local language and public announcement system (loudspeakers).

- 7.1 On-site technical support, Farmers' Field Schools, farmers' feedback sessions and field investigations carried out.

- 8.1 Feedback looped into the Automated Content Management System (AGRIMATE and UPS), the crop advisories generation process as well as to field extension personnel and specialists.

An Overview of WOTR's Agro-Advisory System



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