

Weather based advisory service through ICT in North Eastern Karnataka region

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Abstract: More awareness programmes should be conducted thereby educating the farmers in using the tools and gaining the confidence of farmers by making them understand reliability and the usefulness of the data. If these tools reach hands of well aware and smart thinking individual farmers then it will help them in taking timely decisions related to sowing and preparing the land for the production process which ultimately leads to increasing the income and standard of living of the farmers.

Key words: Agromet, Earth sciences, Food security

Introduction

India being an agrarian nation, monsoon plays a crucial role in Indian agriculture. Every activity related to production is dependent on monsoon to begin the process. The perception of farmers about the monsoon says, over the years the late onset of monsoon has been noticed and early onset is being reduced. All this can be attributed to the process of climate change. The change in onset of monsoon will make the farmers to extend their sowing window which ultimately will affect the yield of the crop in turn impacting the income of the farmers.

Major agromet service provider in India

The India Meteorological Department (IMD) under the Ministry of Earth Sciences is responsible for timely dissemination of weather information based on crop/livestock management strategies and operation dedicated to enhancing crop production and food security (Fig. 1). The Agrometeorological Advisory Service (AAS) program started by IMD is regarded as one of the world's largest agrometeorological information programs (Rathore and Chattopadhyay, 2016).

In the year 2008 IMD launched District-level Agrometeorological Advisory Service (DAAS), with the aim of providing district level weather information and advisories across the country. The Gramin Krishi Mausam Sewa Project (GKMS) started by IMD aimed at establishing the agromet units in all the districts, establishment of agromet data centre, communicating weather based agromet advisory online to the farmers in block/ taluka/ village level, delivering crop and location specific AAS to farmers at block level with village level advisory, creation of Centre for Research and Extension in Agrometeorology (CREAM) to support AAS and research and development support.

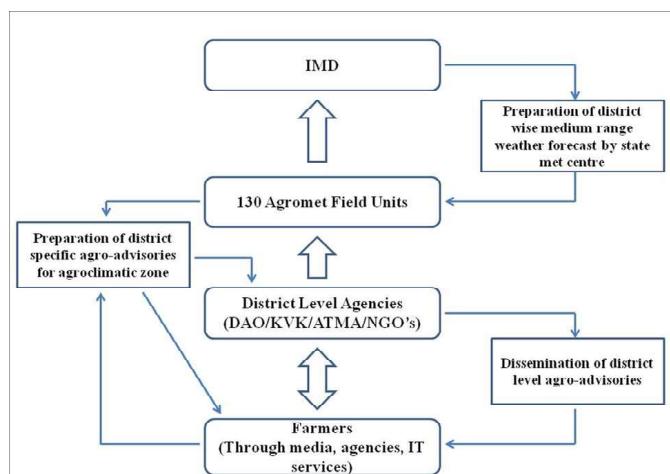


Fig 1. Overview of operational agromet advisory service in India

Dissemination of information

Information dissemination to farmers takes places through different multi-channel system. Some which includes mobile based applications, radio, TV's, newspapers, dooradarshan etc. In addition to this several AgroMet Field Units (AMFUs) have initiated information dissemination through SMS in collaboration with National Informatics Centre (NIC)/ Agricultural Technology Management Agency (ATMA)/ KVK/ NABARD/ web portals. These advisories are been disseminated in both regional and English languages via Kisan SMS and a portal (<http://farmer.gov.in/advs/> login.aspx) launched by the Ministry of Agriculture and Farmers Welfare, Government of India (Chattopadhyay and Chandras, 2018). Apart from this, under the public private partnership, the Reliance foundation, IFFCO Kisan Sanchar Ltd., RML, IFFCO Kisan, Handygo, Mahindra Samriddhi, NABARD are also involved in the dissemination of the information to the farming community.

Results and discussion

Information usage by the farmers

A survey was conducted in the North Eastern Karnataka Region which includes the districts of Bidar, Gulbarga, Yadgir, Raichur, Koppal and Bellary. From the survey it was evident that the major source of weather information to the farmers was SMS followed by radio and others (Fig 2). They were registered

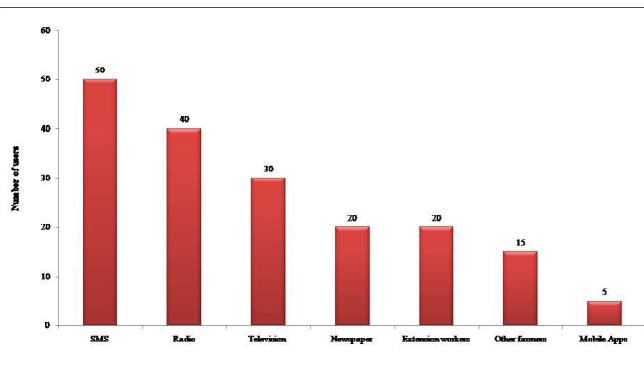


Fig 2. Source of weather information to the farmers



Fig 3. Use of weather information by the farmers

to the free SMS service and also were using the toll free number 1800 220 161. But still there existed a gap. Though majority of

the farmers received the weather information on hand at a right time, only 10 per cent (Fig 3) of them made the better utilization by making the appropriate farm decisions. Remaining 90 per cent of them still relied upon the traditional ways of predicting the weather for making the farm decisions, which shows that they are less reliable on the weather data provided on hand.

Conclusion

More awareness programmes should be conducted thereby educating the farmers in using the tools and gaining the confidence of farmers by making them understand reliability and the usefulness of the data. If these tools reach hands of well aware and smart thinking individual farmers then it will help them in taking timely decisions related to sowing and preparing the land for the production process which ultimately leads to increasing the income and standard of living of the farmers.

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