

RESEARCH PAPER

Constraints associated with the use of weather forecasting service

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ABSTRACT

There is great need of sustainable management in the agricultural sector of the world economics. Accurate and timely forecast of rainfall pattern and other weather variable continue still be a major challenge and preoccupation for the scientific community to sustain the agricultural development. The dictionary meaning of constraints are 'confinement', the exercise to force to determine or 'confine action, 'bound' and 'flattered condition' and restriction of liberty. The major constraints in using the weather forecasting information as may be seen from the table. The possible reasons as reported by the respondents for these problems are as follows: Absence of location specific weather forecasts was the major problem because the forecasts usually cover a wider area and speculation exists among farmers. Poor reliability of weather forecasts was a problem because of lack of certainty of information. Hence, farmers lack trust in the forecasts. One of the most serious constraint was that mostly weather forecasting was not timely forecast at the time of flood and drought and success rate was also very low. Corinne *et al.* (2000) reported that many felt that weather pattern in Andean semi and region had changed and traditional indicators were not as they were in the past. However, they have not been replaced or modified to date. Constraints regarding the understand ability of weather forecasting information. It was found that belief about weather forecast was more powerful than modern weather forecasting in farmer's view was one of the most serious constraints. All the constraints can be minimized by providing guidance to the farmers and by distribution literature and training regarding technicality of weather forecasting advisory services to the farmers.

Key Words : Constraints associated, Weather forecasting service

View point paper : Rajesh, Godara, A. K., Autade, C. D. and Mehta, S. K. (2016). Constraints associated with the use of weather forecasting service. *Asian Sci.*, **11** (2): 125-128, DOI : 10.15740/HAS/AS/11.2/125-128.

Weather forecasting is the application of science and technology to predict the state of atmosphere for the future time and a given location. Human beings have attempted to predict the weather informally for the millennia and formally since at least the nineteenth century. Weather forecasts are made by collecting quantitative data about the current state of atmosphere and using scientific understanding

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of atmosphere processes to reject the atmosphere will evolve.

Recognizing that sustained use of climate prediction to improve decisions also depends on adequate communication and appropriate institutional and policy support, we can list five prerequisites for effective use of climate forecasts. First, climate forecasts must address a need that is both real and perceived. Second, benefit depends on the existence and understanding of decision options that are sensitive to the incremental information that forecasts provide and compatible with decision maker goals and constraints. The third prerequisite is prediction of relevant components of climate variability in relevant periods, at an appropriate scale, with sufficient accuracy and lead time for relevant decisions. Fourth, the use of climate forecasts requires that the right audience receives and correctly interprets the right information at the right time, in a form that can be applied to the decision problem.

The primary motivation for individual farmers is an awareness of some level of vulnerability to impacts of climate variability and opportunity to reduce that vulnerability through appropriate use of forecast information. Motivation is also conditioned by confidence in available forecasts and sufficient knowledge and perceived flexibility to use forecast information to modify decisions to their advantage. For support institutions, motivation comes from internal mandate or external policy. Understanding and involving target decision makers is at the core of successful intervention and is foundational for understanding and successfully addressing the remaining four issues (*i.e.* decision options, climate prediction, communication and institutions and Although the concept of vulnerability as it is commonly used focuses on negative impacts of extreme events (e.g. Ribot, 1996; Vogel, 1998 and Downing and Bakker, 2000) such as drought or flood.

RESEARCH METHODOLOGY

The study was conducted in purposively selected

Hisar from western zone and Kaithal districts from eastern zone of Haryana state, respectively. On the basis of close proximity to the centers issuing weather forecasting advisory services to western and eastern zone. It is also because of familiarity of researcher with the local condition, convenience and easy accessibility.

Two blocks *viz.*, Hisar-1 from Hisar and Kaithal-1 from Kaithal districts were selected randomly. Constantly, Gangua and Dheeranwas from Hisar-1 block and Kyorak and Balwanti from Kaithal-1 blocks were selected randomly for the study. A random sample of 30 farmers from each village was taken. Thus, 60 respondents from Hisar-1 block and 60 respondents from Kaithal-1 block were selected. In this way a total number of 120 farmers were selected for the present study. The constraints were studied under the following categories: 1. Constraints regarding technicality of the weather forecasting information, 2. Constraints regarding understand ability of weather forecasting information and 3. Constraints regarding availability of weather forecasting information.

RESULTS AND REMONSTRATION

The results obtained from the present investigation as well as relevant discussion have been summarized under following heads :

Constraints regarding technicality of the weather forecasting information :

The data in the Table 1 revealed that ‘Most of farmers could not understand SMS on mobile due to lack of knowledge’ was considered the most serious constraints by the respondents and ranked first as per the mean score. The problem weather forecast information is location specific was second in order of importance. The data also revealed that ‘due to flexibility in weather condition information at every time’ was third in rank and the problem of ‘weather forecasting is not timely forecast at the time of flood and drought’ was ranked IV as per its importance.

Table 1 : Constraints regarding technicality of the weather forecasting information			(n=120)
Sr. No.	Statement	Mean score	Rank order
1.	Most of farmers could not understand SMS on mobile due to lack of knowledge	2.59	I
2.	Weather forecast information is not location specific	2.55	II
3.	Due to flexibility in weather condition information is not right at every time	2.50	III
4.	Weather forecasting is not timely forecast at the time of flood and drought	1.51	IV

Constraints regarding understand ability of weather forecasting information :

It was revealed that ‘farmers could not understand SMS on mobile due to lack of knowledge’ of its application was considered the most serious constraints by the respondents and was ranked as per the mean score .The problem of ‘belief about traditional weather forecast is more powerful than modern weather forecasting in farmer’s view’ ranked second in order of importance as per importance. The data also revealed that ‘weather forecasting an advisory service is brief hence, can not be understood by majority of farmers was ranked III. The problem ‘farmers are not able to know the economic benefit of weather forecasts’ was ranked IV which was serious problem. The problem of ‘majority of the farmers are not adopting according in weather forecasting advisory services’ was ranked V as per its mean (Table 2).

Constraints regarding availability of weather forecasting information :

The data in the Table 3 revealed that ‘all farmers do not have availability of source of information’ was ranked first as per the mean score. The problem ‘weather forecasting information could not reach in rural areas’

was ranked second as per its mean score. The data also revealed that the farmers can not get timely weather forecast advisory services due to delay in media. The problem of ‘farmers do not know availability of different media for weather forecasting advisory services’ was ranked IV. These constraints can be minimized by providing availability of weather forecasting information to the remote areas at proper time.

Conclusion :

Constraints perceived by the respondents in using the information provided by the weather forecasting advisory services. It is revealed that ‘farmers could not understand SMS on mobile due to lack of knowledge’ was considered the most serious constraints by the respondents. The success rate of weather forecast information on flood and drought like situation is very low. Weather forecasting based on advisory services can be more useful if they can be understood by majority of farmers. The data also revealed that ‘due to flexibility in weather condition information is not right at every time as per its importance. All the constraints can be minimized by providing guidance to the farmers and by distribution literature regarding technical know how to the farmers. These constraints can be minimized by

Table 2 : Constraints regarding understandability of weather forecasting information			(n=120)
Sr. No.	Statement	Mean score	Rank order
1.	Farmers could not understand SMS on mobile due to lack of knowledge of its application	2.59	I
2.	Belief about traditional weather forecast is more powerful than modern weather forecasting in farmer’s view	2.58	II
3.	Weather forecasting an advisory service is brief hence can not be understood by majority of farmers	2.57	III
4.	Farmers are not able to knowing the economic benefits of weather forecasts	2.51	IV
5.	Majority of the farmers are not adopting according information given in weather forecasting advisory services	2.22	V

Table 3 : Constraints regarding availability of weather forecasting information			(n=120)
Sr. No.	Statement	Mean score	Rank order
1.	All farmers do not have availability of source of information	2.70	I
2.	Weather forecasting information could not reach in rural areas	2.52	II
3.	The farmers can not get timely weather forecast advisory services due to delay in media	1.59	III
4.	Farmers do not know availability of different media for weather forecasting advisory services	1.51	IV

providing availability of weather forecasting information to the remote areas at proper time.

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Received : 10.10.2016; Revised : 16.11.2016; Accepted : 22.11.2016