



IMPACT OF KISAN MOBILE ADVISORY SERVICES

Kisan mobile advisory services were provided by KVK through Messages on crop, weather, livestock, awareness and marketing were sent. On an average 3 messages per week were sent. In last five years a total of 670 messages were sent to 143147 farmers and extension functionaries.

- 81.67% farmers read the message while 76.67% understood the message
- About 73.4% farmers said that messages were suitable. 75% expressed that the messages were useful
- 76.66 percent of KMAS subscribers said that the messages were delivered in time for their usage.

DETAILED IMPACT ANALYSIS

Introduction :

Experts say that poverty line will no longer be measured in terms of money, but in-terms of information. This is quite true because of the revolution of Information Communication Technology which is more responsible for wide spread penetration of computer technology as well as mobile phone service in to the social fabric. The technology in turn influenced the society and its development. In this age of information revolution, Information Technologies are being used in all walks of life. Emerging information system and communication networks have redefined the way knowledge is shared, procured, stored and retrieved. In rural India, ICTs are having a profound impact changing the rationale of development activities and strategies. Number of initiatives have proved the potential of ICTs in meeting the information and communication needs of the farming community.

ICT initiatives have shown that rural livelihoods are greatly enhanced by access to information on improved agricultural practices, market rate, weather information etc.

Mobile Advisory Services of KVK, Gadag :

Kisan Mobile Advisory Services (KMAS) is one of such initiative of Information Communication Technology which provides location specific and crop specific farm advisory services and facilities. The service was started by KVK, Gadag during 2011-12 in Gadag district. The KMAS delivers real prime agricultural information and customized knowledge to improve farmers' decision making ability so that they will be able to increase their crop productivity, better quality and price for their produce.

KVK is using the service of M/s Net core Ltd., Mumbai to provide bulk SMS to deliver the mobile alerts to farmers. Apart from this, services of vKVK developed by IIT, Kanpur and Farmers Portal initiated by Department of Agriculture and Co-operation, Ministry of Agriculture, Government of India are also taken. Practicing farmers, farmwomen and rural youths and extension functionaries are registered for Kisan Mobile Advisory Services during trainings, extension activities, krishi melas,

exhibitions, technology week etc. The details of the farmers along with mobile numbers are collected in prescribed format including important crops grown and enterprises practiced. Based on this, farmers are categorized in to different commodity groups. In each crop, technical gaps at critical stage are identified and the message tips are prepared by concerned Subject Matter Specialists of KVK and are sent to farmers during crop season. Messages are sent in Kannada language as well as English [Kannada language using English alphabets]. During last 3 years, KVK has made the progress on KMA services as detailed in Table-1

Table-1 : Progress on Kissan Mobile Advisory Services (2011-12 to 2013-14)

Thematic areas	Year-wise progress during						Total	
	2011-12		2012-13		2013-14		No. of messages	No. of farmers
	No. of messages	No. of farmers	No. of messages	No. of farmers	No. of messages	No. of farmers		
Awareness	3	264	18	458	6	1160	27	1882
Crop	42	915	38	1361	40	1172	120	3448
Livestock	9	915	14	279	7	1160	30	2354
Other enterprises	4	264	2	355	4	932	10	1551
Total	58	2358	72	2453	57	4424	187	9235

During last 3 years period from 2011-12 to 2013-14, KVK has sent 187 Kisan mobile services to 9235 farmers. The thematic areas of the messages were awareness activities, crop production, plant protection, livestock and other enterprises.

Keeping in mind the importance of mobile advisory services to farmers and it's impact on their decision making ability, KVK conducted an impact study with the following objectives

OBJECTIVES OF THE STUDY

- 1) To know the farmers' response to the SMSs in respect of it's suitability, understandability and timeliness of the message.
- 2) To know whether farmer has adopted or acted as per advice of Kisan Mobile Advisory Service
- 3) To know whether disseminated messages have been communicated to other neighbouring farmers
- 4) To get suggestions from farmers on areas of future advisory services

METHODOLOGY AND DATA

KVK has the list of farmers to whom messages were sent. About 60 farmers' names were randomly chosen among the farmers' list to whom messages were sent during 2012-13. A proforma was developed to collect the information from farmers. The farmers were contacted over phone during their leisure time and the information was collected.

RESULTS OF STUDY AND DISCUSSION

1) EDUCATION LEVEL OF KMAS SUBSCRIBERS

Among the sixty farmers taken for the study, about 31.7 per cent of farmers were degree holders. Twenty six per cent of farmers have studied matriculation followed by 25 percent in secondary education [Table-2]

Table-2 : Education level of farmers (N=60)

Education	No. of farmers	Per cent
Primary	3	5.0
Secondary	15	25.0
High School	16	26.7
PUC	7	11.6
Degree	19	31.7

2)STATUS OF MESSAGE SENT

Data presented in Table-3 reveals that all the sixty farmers taken for the study have received the advisory messages and all of them have read the message. Further, 100 percent of farmers have understood the contents of the message. This indicates that the message sent were simple in nature and understood by all the farmers.

Table - 3 : Status of Message sent

Status	No. of farmers (N=60)	
	Yes	%
Message received	60	100
Message read	60	100
Message understood	60	100

3)SUITABILITY, USEFULNESS, TIMELINESS AND ADOPTION OF MESSAGE

When farmers asked about suitability or relevance of the message sent, 95.00 per cent of farmers expressed that the message was very much suitable and relevant to their situation. About 98.33 per cent farmers provided the feedback that the messages were very useful. Further, they said that the content of the messages were practical especially messages with respect to plant protection measures. The data presented in Table-4 further reveals that 100 per cent of farmers said that the messages were sent in time when they needed it most.

About 93.33 per cent of farmers have adopted the message or acted upon the advisories provided. This is very much significant keeping in mind the expected outcome and impact of adoption of message.

Table - 4 : Response to suitability, usefulness, timeliness and adoption of message (N=60)

Particulars	No. of farmers	Per cent
Suitability of message		
Suitable	57	95.0
Not suitable	3	5.0
Usefulness of message		
Useful	59	98.33
Not useful	1	1.67

Timeliness of message		
Timely	60	100
Not timely	0	0
Adoption of message		
Adopted	56	93.33
Not adopted	4	6.64

4)DISSEMINATION OF MESSAGE TO OTHER FARMERS :

When asked about sharing of message with other farmers, 67 per cent of farmers gave response that they have shared and discussed the message with friends, relatives and fellow farmers. This trend is very much encouraging as there is spread of information from farmers to farmers.

5)CONTINUATION TO KMA SERVICES :

100 per cent of farmers would like to continue their subscription to Kisan Mobile Advisory Services.

6) FARMERS SUGGESTIONS ON FUTURE ADVISORY :

While 100 per cent of farmers prefer to continue to get mobile advisories, they have indicated their areas of future advisory in Table-5. About 86.66 per cent of farmers would like to receive need based technology tips on plant protection measures. This is followed by crop production technologies (78.33 percent). Crop production technologies included use of improved varieties, seed treatment, inter-cultivation, basal dose of nutrient application, top dressing etc. About 66.66 per cent of farmers suggested that they need more messages related to price forecasting of commodities and the market price of commodities in various markets at taluka, district and state level. 50 per cent of farmers requested to send messages related to agricultural inputs followed by weather information (43.33 per cent). The table also reveals that farmers also need messages on Soil and Water Conservation (36.66%) and Government Schemes (26.66%).

Table-5 : Areas of future advisories as suggested by the farmers (N = 60)

Areas of advisory	No. of farmers	Per cent
Plant Protection measures	52	86.66
Crop production technologies	47	78.33
Market information	40	66.66
Inputs (Availability of seeds, bio-fertilizers, micro nutrients etc.)	30	50.00
Weather information	26	43.33
Soil and Water conservation	22	36.66
Government schemes	16	26.66

CASE STUDIES OF FARMERS

Box – 1 : Scientific Management of Pest increased the productivity of Bengalgram crop

Name : Shri Mahesh Meti
Age : 35 years Education : PUC
Mobile No. : 8970731193 Village : Jakkali, Tq : Ron
Distance from KVK : 40 kms.
Main Crop : Bengalgram

The farmer has been regularly receiving SMS alerts by KVK on Integrated Pest Management on Bengalgram crop in different stages. He says that timely messages on pod borer management in early stage of crop growth has led to immediate action and has reduced the number of sprays. Further, he says that SMS has increased the frequency of interaction with agricultural experts, thus reducing time and travel cost. Overall impact is that the SMS has improved the decision making ability and increased the net income.

Box – 2 : Mobile message on price forecast increased the profit margin of Maize growers

Name : Shri Ravindra Mundargi
Age : 42 years Education : BA
Mobile No. : 9481250802 Village : Muradi Tq : Mundargi
Distance from KVK : 70 kms.

The farmer is leading "Swabhiman Farmers Club" comprising of mainly maize growers. He has been receiving SMS alerts on crop technologies as well as price forecast and market information. During Kharif season of 2011, farmers of Muradi harvested the bumper crop of Maize. Unfortunately the market price of Maize was less i.e. Rs. 930/- per quintal during the months of November and December. During the same period, the DEMIC, UAS, Dharwad had predicted that the price of Maize would reach around Rs. 1100 to 1150 per quintal in Gadag market during the month of February, 2011. This information was sent by KVK to Mr. Ravindra Mundargi. He withheld 250 quintal of Maize produced by him. During February 2011, he sold the produce at the rate of Rs. 1130 per quintal. He provided the price forecasting information of maize to all his Farmers' Club members and other farmers of the village. About 1500 quintal of maize was sold at the rate of Rs. 1130 per quintal. Thus, it has benefitted the farmers to the tune of Rs.3.00 lakhs in a span of just 2 months. The market information sent by KVK was found to be very useful in enabling farmers to get the remunerative price for their produce.

Box – 3 : Technology helps to boost the productivity in Mango

Name : Shri Manjunath Sali
Age : 33 years Education : BA
Mobile No. : 9902850266 Village : Balehosur Tq : Shirahatti
Distance from KVK : 45 kms.

The farmers of Balehosur are new to mango cultivation. Shri Manjunath is one of the mango grower who has registered his mobile number to KMA Services of KVK. He is getting SMS alerts on mango production technology in different stages. He says that information on use of mango special has increased the productivity of mango by 25 per cent. SMS alerts on pest and disease management in mango have been very useful and improved the quantity of mango produce. It is significant to note that the farmer has disseminated the technologies to other mango growers in the village.

Box – 4 : Timely message saved the sunflower crop against leaf eating caterpillar

Name	: Shri Imamsab B. Sunkad		
Age	: 48 years	Land holding	: 2 ha
Mobile No.	: 9986706545	Village	: Malasamudra Tq : Gadag

Imamsab is a small farmer mainly cultivating dryland crops of greengram, sunflower & jowar. During 2012 rabi season, he had taken up sunflower in 1.5 hectares of land. The crop was established well till he received a mobile message from KVK about the incidence of leaf eating caterpillar and its control measures. The message made him to inspect his crop and found the early incidence of caterpillar. He took up the control measures as suggested in the message and saved the entire crop of 1.5 hectares. The neighboring farmers did not take up the control measure and incurred huge loss. One timely message has saved the sunflower crop and supported the livelihood of a small farmer.

Conclusion :

The study conducted to know the utility and impact of mobile advisory services reveals that need based advisories offer great scope for technology adoption and dissemination. Apart from saving time and resources, this mechanism improves the decision making ability of farmers and enhances the productivity of crops and enterprises.