

# Assessment of Kisan Mobile Advisory (KMA) Service for Dissemination of Agriculture Information in Mehsana District; Gujarat

M. R. Patel, M. V. Patel and R. A. Patel

Krishi Vigyan Kendra, Ganpat Vidyanagar

District: Mehsana- 384 012 (Gujarat)

Present correspondence Address : Subject Matter Specialist (Extension Education),  
Krishi Vigyan Kendra, Ganpat Vidyanagar-384 012, District- Mehsana (Gujarat)

**Abstract:-** Introduction of information and communication (ICT) in the field of Agriculture has brought many changes in traditional methods of extension. It enables the dissemination of requisite information at the right time to the right people. The revolution in ICT has made access to the information easy and cost effective to the rural masses in general and farming community in particular. Kisan Mobile Sandesh (KMS) or Kisan Mobile Advisory Services (KMAS) is one among several methods of ICTs working successfully for dissemination of latest information. KMAS is best on the liner model of communication, which involve four major component of communication process viz. Sender, Message, Channel and Receiver, Mobile phones, Short Message Service (sms) are important tools and can be used by the KVK specialist. The extension functionary is the user of the information while farmers are implementer at field level. Kisan Mobile Advisory Service was launched for sending information through SMS in Mehsana District through Krishi Vigyan Kendra during January 2014. The content of messages were typed in Gujarati language and information related to crop production, crop protection, vegetable and fruit production, spice crops, dairy farming, weather forecasting, post harvest management and other agricultural and allied related information sent to end users. To evaluate the sending information and usefulness of information, the present study was constitutes, survey of 80 farmers, 10 in-service personnel and 10 input suppliers of district during 2014-15. Result of survey shows that messages were highly understandable for large majority 42.50 % of the members of farmer's category. It was highly understandable for 80 % and 50 % KMA member of in-service personnel and input supplier category respectively. Messages were needful and timely for 67.50% of KMA member of farmer's category and about 70% and 50% for in-service personnel and input supplier, respectively. As far as applicability of message is concerned, the messages were fully applicable for about 44 % of KMA member of farmer's category whereas medium and partially applicable were reported by 17.50 % and 22.50 % of members, respectively. It was also found that messages were fully applicable for in-service personnel (60 %) and input supplier (50 %). Majority of the framers 72.50 % were conveyed the messages minimum to one another farmers in social system.

**Keywords:-** KMA, SMS, RAEO, ICT MOBILE

\*\*\*\*\*

## I. INTRODUCTION

Indian agriculture is essentially small farm agriculture with the majority of farmers owning less than 1 hectare land. Small and marginal farmers now constitute over 80 per cent of farming households in India. The average farm size has been declining. The land and water resource base for an average farm holding has declined over the last few decades. There are wide gaps in yield potential and national average yields of most commodities. "In addition to stressed natural resources and very inadequate rural infrastructure, there are clear evidence of technology fatigue, run-down delivery systems in credit, extension and marketing services and of insufficient agricultural planning at district and lower levels" (Planning Commission, 2011). Access to adequate information is very essential to increase agricultural productivity (Sharma *et al.*, 2012)

Agricultural extension services can play an important role in addressing many of these challenges. Perhaps, there is no agency at the ground level, other than agricultural extension services that can provide knowledge

support to farmers and other intermediaries and at the same time support programme implementation. Considering the changing nature of agriculture and the evolving challenges, producers currently need a wider range of support, including organizational, marketing, technological, financial and entrepreneurial. To be successful, farmers require a wide range of knowledge from different sources and support to integrate these different bits of knowledge in their production context. Traditional public- sector extension services use a variety of extension programmes to overcome barriers to technological adoption without much success (Aker, 2010). Typically poor and illiterate, rural Indian farmers generally have very limited access to information regarding improved farm techniques (Jain, 2011).

The extension workers and farmers ratio is very wide in India. This clearly indicates about the inadequate manpower of extension workers in India. All these things have made to think beyond the traditional agriculture extension and subsequently led to the increase application of ICT in agriculture. ICTs essentially facilitate the creation, management, storage, retrieval, and dissemination of any

relevant data, knowledge, and information that may have been already been processed and adapted (Batchelor, 2002; Chapman and Slaymaker, 2002; Rao, 2007; Heeks, 2002). ICTs now include computer-based applications and such communication tools as social media, digital information repositories (online or offline), and digital photography and video, as well as mobile phone (Balaji et al., 2007). However, in agriculture, despite the rapid spread and potential of ICTs to facilitate farmers 'access to information, many of the initiatives face common challenges, such as issues of sustainability, affordability, ease of use, accessibility, scalability, and availability of relevant and localized content in an appropriate language (Keniston, 2002; Dossani, Misra, and Jhanveri, 2005; Saravanan, 2010). At present in India a number of ICT initiatives in agriculture, out of which, KMAS is of the approach adopted by KVK Mehsana.

## II. MATERIALS AND METHODS

Present study was conducted in Mehsana District of Gujarat. The majority farmers are come under small and marginal group. The land holding may have bearing on uselessness of the SMS. Kisan Mobile Advisory Service was launched for sending information through Short Message Service (SMS) in Mehsana District by KVK during 2014. Information regarding crop production, crop protection, horticulture crop, dairy farming, weather, post harvest technology, value addition and other agriculture related information.

For collecting information by a semi structure interview schedule was designed on the basis of availability of literatures. Data were collected by personal or discussion with all the respondents. Out of total registered 31014 users with us, 80 farmers, 10 in-service personnel, 10 input suppliers were selected randomly for collection of data. The data were analyzed by using frequency, mean and percentage.

## III. RESULTS AND DISCUSSION

Kisan mobile Advisory Service was started with the aim of passing the Agriculture information to maximum numbers of farmers in shortest, cheapest way and also timely advice without any distortion of the message. Initially, SMS were sent in local language font (Gujarati) but messages did not display to end users receiving mobile phone due to capability issue. Later on it was decided to use the English alphabet for passing information in local language. A total number 43 SMS was sent pertaining to different discipline related with agriculture in 2014-15. Maximum 39.5 % SMS were sent in the field of Agronomy (Crop Production) followed by Plant Protection (Crop

protection) 37.2 %. Rest of 23.3% SMS includes information on Animal Husbandry, horticultural crops, Weather, Input Advisory and other agriculture related information.

**Table 1 : No of SMS sent pertaining to different discipline**

Sr. No.	Area	No of SMS
1	Agronomy (Crop Production)	17 (39.5)
2	Plant Protection (Crop Protection)	16 (37.2)
3	Animal Husbandry	3 (6.9)
4	Weather	1 (2.32)
5	Input Advisory	1 (2.32)
6	Miscellaneous	5 (11.6)
<b>Total</b>		<b>43</b>

### Understanding of the message

The result obtained indicated that messages were medium to high understandable for large majority i.e 41.25% to 42.50% of farmers category. It was highly understandable for 80% and 50% KMS members of in-service personnel and input supplier category, respectively. No members of any category of KMS were reported that messages were not understandable for them (Table 2). These findings were nearby to finding reported by Omprakash and S.K. Shrivastava 2012.

**Table 2: Distribution of the Respondents according to understanding of the message**

Particular	Farmers (n=80)		In service personnel (N=10)		Input supplier (N=10)	
	Count	Percentage	Count	Percentage	Count	Percentage
Highly understandable	34	42.50	8	80.00	5	50.00
Medium understandable	33	41.25	2	20.00	3	30.00
Low understandable	13	16.25	0	00.00	2	20.00
Not understandable	0	00.00	0	00.00	0	00.00

### Need and Time base information

KMS provided a wide bouquet of agricultural information's ranging from their land preparation to harvesting and storage and also about allied enterprises but needfulness and timeliness of the messages was very important. The data presented in Table-3 indicated that messages were needful and timely for 67.50 per cent of the KMS members of the farmer's category and about 70 and 50 percent for in-service personnel and input supplier,

respectively. The message was not needful and not timely for them was reported less numbers of farmers (10 %), in-service personnel (00.00%) and Input Supplier (10 %).

**Table 3 : Distribution of Respondents according to need and time base information**

Particular	Farmers (n=80)		In service personnel (N=10)		Input supplier (N=10)	
Needful & Timely	54	67.50	7	70.00	5	50.00
Needful but Not timely	10	12.50	2	20.00	2	20.00
No Needful but timely	9	11.25	1	10.00	2	20.00
No Needful & Not timely	7	8.75	0	00.00	1	10.00

#### Applicability of messages

As far as applicability of message is concerned, the data presented in Table No.4 indicates that message was fully applicable for about 44 % of KMS members of farmer's category. Medium and partially applicable were reported by 16 % & 24 % of members of farmer's category, respectively. It was also found that message was fully applicable for in-service personnel (60 %) and input supplier (50 %).

**Table 4: Distribution of the Respondents according to applicability of message**

Particular	Farmers (n=80)		In service personnel (N=10)		Input supplier (N=10)	
Fully Applicable	32	44.00	6	60.00	5	50.00
Medium Applicable	14	17.50	2	20.00	3	30.00
Partially Applicable	18	22.50	2	20.00	2	20.00
Not Applicable	16	20.00	0	00.00	0	00.00

#### Distribution of KMA users according to their frequency of messages conveyed to other

Majority of farmers 72.50 % were convey the message minimum to one another farmers in social system, while 10 % conveyed messages to more than 3 farmers and only 17.50 % would not conveyed the information to others (Table 5). 40 % in service personnel also disseminate the information to 5-10 user farmers and about 30 % input supplier also conveyed the information obtain from KMA to the user farmers. It could be concluded that only in-service personnel but also KMA user farmer and input supplier for some extent disseminate the information to other user farmers. This finding was similar to finding reported by Kansana and Singh, 2015.

**Table 5: Distribution of KMA users (Respondents) According to their frequencies messages conveyed to other**

Sr. No.	Farmers		In service personnel (N=10)		Input supplier (N=10)	
	Category of conveyed farmers	Farmers (n=80)	Category of conveyed farmers	In service personnel (N=10)	Category of conveyed farmers	Input supplier (N=10)
1	0	14 (17.50)	0-5	3 (30.00)	Regularly	00 (00.00)
2	1-3	58 (72.50)	5-10	4 (40.00)	Rarely	3 (30.00)
3	4-6	8 (10.00)	10-15	3 (30.00)	Never	7 (70.00)

#### IV. CONCLUSION

The study indicate that KMA is one of the most useful tool for dissemination of agriculture information to farmer and also can play a greater role in enhancing efficiency of extension service by reaching large number of peoples. Result of survey shows that messages were highly understandable, needful and timely as well as fully applicable for KMA users.

#### REFERENCES

- [1] B.S. Kansana; Pradeep Singh; Pushpendra Singh and A.K. Singh. 2015. Assessment the efficiency of KMS in ICT tool for Agril. Ext. and Rural Development. IJSR-Volume-4, Issue:1.
- [2] Batchelor, S.2002. Using ICTs to Generate Development content. IICD Report 10. The Hague : International Institute for Communication and Development.

- 
- [3] Jain, S. 2011. Information Empowerment of Rural People in Agriculture through e-Choupal. *Journal of Community Mobilization and Sustainable Development*, 6(1): 57-61.
  - [4] Keniston, K. 2002, Grassroots ICT Projects in India: Some Preliminary Hypotheses. *ASCI Journal of Management*, 31 (1&2).
  - [5] Omprakash Parganiha; S.K. Shrivastava; A.K. Chaubey and J.L. Nag. 2012. Impact of KMA on Agricultural Technology Dissemination. *Indian. R. J. Ext.Edu.*, special issue volume-II, 175-178.
  - [6] Planning Commission. 2011. Draft on Faster, Sustainable and More Inclusive Growth - An approach to Twelfth Five Year Plan", available at [http://planningcommission.nic.in/plans/planer/12appdrft/approach\\_12plan.pdf](http://planningcommission.nic.in/plans/planer/12appdrft/approach_12plan.pdf).
  - [7] Sharma, A, A, Sharma and A. Saxena. 2012. Information utilization among rural fish farmers in Uttarakhand. *Journal of Community Mobilization and Sustainable Development*, 7(1):95-100.
  - [8] Sulaiman, R. 2003. Agricultural Extension Involvement of private sector. National Bank for Agriculture and Rural Development, Mumbai, India.