Agricultural Extension Delivery System at Grass-root Level in Karnataka : Time Utilisation Pattern, Constraints and Suggestions

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ABSTRACT

A demand driven extension system at the grass-root level called Raitha Samparka Kendras (RSKs) were established in Karnataka state of India in the year 2000 replacing the earlier T&V system. The study was conducted in Gadag district of North Karnataka of which six agricultural officers (AOs) and twenty- five assistant agricultural officers (AAOs) of the RSKs were selected. It was found that the AOs utilised most of their time attending meetings and trainings while the AAOs time were mostly consumed for input distribution. The AOs of the RSKs planned extension activities at 'pre-season' and 'when required'. Non- availability of information and input at the needed time from the sources were the major constraints faced by the extension personnel of RSKs.

Key words : *Extension personnel, Time-utilisation, Constraints, Suggestions*

India's extension system has experienced major changes since late 1990s in governance structures, capacity, organization and management, and advisory methods. The changes involve the decentralization of extension service provision to the local level, the adoption of pluralistic modes of extension service provision and financing, the use of participatory extension approaches, capacity training of farmers to express their demands, and capacity training of service providers to respond to the demands of farmers, among others (Birner and Davis, 2006; Anderson, 2007). To this end, the recent agricultural-sector reforms have been geared toward creating a demand driven, broad-based, and holistic agricultural extension system (Sulaiman and Hall, 2002, 2004; Anon, 2005).

The problems that emanate from agriculture at grass root level are identified by extension personnel and then shared with scientists for plausible solutions. The adoption of innovations depends largely on effective information dissemination and input delivery using appropriate teaching methods in a timely and systematic transmission.

Agriculture in Karnataka is in the process of modernization in many phases. Considering the importance and need to provide effective extension services to the farmers, Raitha Samparka Kendras (RSKs), a demand driven agricultural extension system at the grass-root level was initiated in Karnataka state, India in the year 2000, replacing the earlier T&V system. So far in Karnataka state, 745 RSKs are established at Hobli /sub-block level in 176 taluks (Anon., 2005). These RSKs located in proximity to the farming community are aimed at addressing wide range of local issues related to agriculture. They also act as a common platform and create a terminal linkage to the farmers to access and interact about agriculture based technology and information at the grass root level. This paper endeavours to understand the time utilisation pattern of the extension personnel of RSKs and the constraints faced by them.

METHODOLOGY

The study was conducted at Gadag district of North Karnataka of which three taluks, Gadag, Mundargi and Ron comprising of total six RSKs (2 from Gadag, 1 from Mundargi and 3 from Ron) were selected using purposive sampling technique. Six agricultural officers (AO) incharge of the respective six RSKs and twenty-five grass-root level extension personnel (AAOs) who were engaged in transfer of technology process in RSK were considered as respondents. An interview schedule and questionnaire was developed and used for collecting data. The data generated were analysed and presented by using averages and frequencies.

RESULTS AND DISCUSSION

Profile characteristics of grass-root level extension personnel (AAOs) : It can be observed from Table 1 that 76 per cent of the grass-root level extension personnel had over 19 years of experience in extension work, 48 per cent had held their post for more than 4 years and a majority of the extension personnel attended only up to two training programmes. Majority of the grass-root extension personnel (AAOs) were found under medium category of research-extension linkage and had an operational area of 7 villages. Majority of the grass-root extension personnel (AAOs) were well acquainted with extension work but due to reasons like lack of update trainings and wide coverage area, the grass-root extension personnel (AAOs) were unable to perform their duties successfully. Further, the long years of service in a specific post will decline the level of aspiration of grass-root level extension personnel (AAOs) to work effectively. The fact is that most of the grass-root level extension personnel (AAO) were initially appointed as Agricultural Assistant (AA) with SSLC qualification and training in agriculture. With the establishment of RSK, AO who had post-agricultural graduate in agricultural sciences is given as

head of RSK and AA post was upgraded to AAO. Though, most of them had long years of experience and good field experience, their limited participation in training and interaction with research institutions resulted in limited knowledge on improved technologies as well as communication skills.

Time utilisation pattern by the extension personnel of RSK : An insight into Table 2 depicts that the time utilisation pattern by AOs remain same during kharif, rabi and summer season for the specific activities while spend more time in the office. From the results it can be interpreted that the RSK officials emphasize more on administrative, paper works and selling of inputs rather than focussing on the challenges in the field. The primary objective of the establishment of RSKs was to provide technical information related to agriculture and to provide services such as seed and soil testing. On the contrary, time utilisation pattern for information delivery mechanism by the RSK officials was mostly confined to selling of inputs. Further, the opportunity for that of AAOs, time utilisation pattern varied with season. Maximum time was utilised for attending meeting and training by the AOs while in case of AAOs most of their time was utilised for input distribution. Further, most of the extension activities in field were carried out by the AAOs with an average time of 17.9, 19.4 and 23.4 per cent during kharif, rabi and summer season respectively, while the AOs spent only an average time of 5 per cent in in all the seasons for extension activities in field and they were found to for the grass-root level workers (AAOs) to attend meetings or committees was limited, although it would have been preferable if they were given ample opportunity to participate in meetings as the AAOs were the agents who were directly in contact with the farmers and were acquainted with their needs. This result is in conformity with the findings of Srinivasa et al. (2003).

Table 1

Distribution of grass-root extension personnel (AAO) according to their personal characteristics

(n=25)

Sl. No.	Characteristics	Frequency	Percentage
1.	**Experience (in years)**		
	(a) Low (<19 years)	06	24.00
	(b) Medium (19-24years)	09	36.00
	(c)High (>24 years)	10	40.00
	Mean	21.2	
	SD	6.31	
2.	**Years of holding the post**		
	(a)Low (<2 yrs)	02	08.00
	(b) Medium (2-4 years)	11	44.00
	(c) High (>4years)	12	48.00
	Mean	3.28	
	SD	1.3	
3.	**Training Programmes attended (no.)**		
	(a) up-to 2	18	72.00
	(b)>2	07	28.00
4.	**Coverage of village (no.)**		
	(a) low (<4)	07	28.00
	(b) medium (4-7)	10	40.00
	(c) high (>7)	08	32.00
	Mean	5.6	
	SD	3.2	
5.	**Research-extension linkage**		
	(a) low (<1)	01	04.00
	(b) medium (1-2)	15	60.00
	(c) high (>2)	09	36.00
	Mean	2.28	
	SD	1.06	

Frequency of planning activities at the RSK by the AO : The results in Table 3 depicted the frequency of planning of activities by the AO at different season, i.e.

Table 2
Time utilisation pattern by extension personnel of RSK

Sl. No.	Activities	Percentage of time (%)							
		AO (n=6)		AAO (n=25)					
		Kharif/Rabi/ Summer		Kharif		Rabi		Summer	
		Range	Avg	Range	Avg	Range	Avg	Range	Avg
1.	Extension activities (in field)	5	5	5-50	17.90	5-50	19.40	8-60	23.40
2.	Extension activities (in office)	5-20	13.30	4-30	15.60	4-35	17	4-35	13.40
3.	Input distribution	0-5	3.30	20-60	39.30	10-60	30.70	10-60	26.40
4.	Report writing	5-20	17.50	5-15	9.70	5-25	15.40	5-25	17.60
5.	Meeting & training	25-60	34.20	5-15	9.30	3-15	9	2-30	11
6.	Admin. work	20-40	26.70	5-10	8.30	5-10	8.40	5-10	8.10

pre-season, during season or when required. It was found that the AOs of the RSKs planned the activities like training programmes for farmers, layout of demonstration plots and trial plots, method demonstrations and planning of sale centres at 'pre-season' while activities like visit to farmers' field and distribution of seeds, fertilizers, manure, bio-fertilizers and micro-nutrients were planned as and when required.

For systematic functioning of the RSK, planning of activities before-hand is necessary. The AOs of the RSKs in collaboration with scientists, higher officials and grass-root extension personnel (AAOs) should prepare schedule for all the extension activities of RSKs prior to the season and not when need arises. A policy should be drawn at government level to have regular interactions between the scientists, higher officials with the extension personnel of RSK for effective functioning of the organisation.

Constraints encountered by the extension personnel

A perusal of Table 4 reveals that majority of the extension personnel felt that non-availability of

Table 3
Planning of activities at RSK by the A.O **(n=6)**

Sl. No.	Activities	Period of planning					
		Pre-Season		Season		When Required	
		Freq.	%	Freq.	%	Freq.	%
1.	Training programmes for farmers	3	50.00	3	50.00	0	0
2.	Visits to farmers' field	1	16.67	1	16.67	4	66.67
3.	Layout of demonstration plots and trial plots	3	50.00	1	16.67	2	33.33
4.	Method demonstration	3	50.00	1	16.67	2	33.33
5.	Planning of sale centres	4	66.67	0	0	2	33.33
6.	Distribution of seeds	2	33.33	0	0	4	66.67
7.	Distribution of fertilizers & manure	2	33.33	0	0	4	66.67
8.	Distribution of bio-fertilizers	2	33.33	0	0	4	66.67
9.	Distribution of micro-nutrients	2	33.33	0	0	4	66.67

information on time and lack of training were the major constraints faced when acquiring information from sources. With respect to disseminating information to the farmers, the extension personnel felt that inadequate transport facility, lack of time and non-acceptance from farmers were the major constraints. With regard to acquiring inputs from sources, all the extension personnel expressed that lack of input supply at the right time and lack of infrastructural facilities for storing inputs were the major problems. Less stock of inputs and lack of transportation for input delivery (100%) were the major problems encountered by the extension personnel during delivery of inputs to farmers.

The major problems expressed by the extension personnel during acquiring information brings to light that the RSKs' extension personnel were putting an effort to perform their job but due to limited sources to acquire the information/input on time the extension personnel were unable to cater to the farmers' needs on time. The lack of training programmes organised by the agriculture department or agricultural universities made the extension personnel short of information on latest developments in agriculture. Moreover the poor transportation facilities in remote areas and overburden of administrative work had hampered the performance of many RSKs staff in information/ input delivery. It was observed during interaction with the staff that the inputs were not sent in time, hence not available to dispatch to farmers when they need them. Further, limited space for storage had also affected in storage and dispatchment. As indicated earlier, government commitment to procure inputs from private companies and procedure involved might have delayed the process. The RSK should be freed from supply of all inputs of private companies. They can limit to critical inputs like seed treatment, micro-nutrients, new seeds, etc. Many of the extension personnel also indicated that the non-acceptance of the information from farmers' part was also a constraint as farmers referred to various other sources for information like progressive farmers and input dealers whose information may not be valid.

Suggestions given by extension personnel for improvement

For proper extension delivery mechanism by the RSK, the extension personnel gave few suggestions as illustrated in Table 5. Important suggestions given by them include proper transportation (90.3%), lesser

Table 4
Problems encountered by the extension personnel (AO & AAO)
(n=31)

Sl. No.	Problems	Frequency	Percentage
A.	**Problems in acquiring information from sources**		
1.	Non- availability of information on time	28	90.32
2.	Lack of training	26	83.87
3.	Non- availability of experts	16	51.61
4.	Inadequate support from senior officers	13	41.93
B.	**Problems in disseminating information to farmers**		
1.	Inadequate transport facility	31	100
2.	Lack of time	26	83.87
3.	No acceptance from the farmers	26	83.87
4.	Inadequate support from subordinates	18	58.06
C.	**Problems in acquiring inputs from sources**		
1.	Lack of input supply at the right time	31	100
2.	Lack of infrastructural facilities for storing the inputs	31	100
3.	Lack of transportation to acquire inputs	26	83.87
4.	Non-availability of inputs according to local needs	23	74.19
5.	No new materials	11	35.48
D.	**Problems in delivering inputs to farmers**		
1.	Less stock of inputs	31	100
2.	Lack of transportation for input delivery	31	100
3.	Lack of funds	29	93.55
4.	Higher distance of coverage	25	80.64
5.	Insufficient staff and heavy work load	21	67.74

Table 5
Suggestions given by extension personnel (AO and AAO)
(n=31)

Sl. No.	Suggestions	Frequency	Percentage
1.	Proper transportation	28	90.32
2.	Reduce the coverage area	26	83.87
3.	Availability of funds on time	25	80.64
4.	More trained staff	18	58.06
5.	New technology training courses	15	48.39
6.	Use of ICT for fast information	8	25.81

coverage area (83.9%) and availability of funds on time (80.6%) for effective functioning and delivery of services to farmers.

Majority of the extension personnel suggested proper transportation facilities as the extension personnel working in RSKs need to cover entire Hobli (sub block) which varies in geographical area. With the heavy workload at the office, the extension personnel also suggested lesser coverage area, which can be accomplished by recruiting more staffs at the RSKs. The availability of funds on time was also suggested, as the proper building infrastructure could be maintained and regular operational expenditure could be met. The suggestion appears to be valid especially in terms of maintaining staff strength, to cover farmers effectively.

CONCLUSION

RSKs were established with the primary objective to provide technical and update information related to agriculture and to provide agricultural inputs. On the contrary, time utilisation pattern for information delivery mechanism by the RSK officials was very less and was mostly confined to selling of input. At-least two-third of their time should be devoted to direct interaction with the farmers. It may be noted that the input supply to farmers without complete information will not ensure expected results. Hence, there is urgent need to balance information and input delivery services at RSK level. Further, there is a need to reduce the coverage area along with improvement in transportation facilities for effective transfer of technology.

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