

## **Constraints Faced by Extension Personnel in Performing Linkage Activities with Scientists**

Agricultural development is the process which is continuous and dynamic. Research system has to start the process by conducting basic and applied research. It is therefore important that researchers identify real problems and issues facing the clients before making a research postulate. This requires a direct linkage of the research subsystem with both client as well as extension subsystem (Sinha, 1996).

Agricultural research institutions usually concentrate their efforts on strategic research and technology generation. Some efforts towards technology testing are also made. However, technology integration and production activities are generally neglected. In contrast, more extension agencies concentrate their effort on technology production and dissemination with negligible attention given to technology integration and testing.

In the absence of effective linkage, researchers does not receive enough information about the environment and resource constraints under which farmers are operating. Also extension agencies do not receive the necessary information and co-operation they need from researchers to adopt and then disseminate new technology. The linkage problem thus cause disruptions in technology flow and lead to low adoption rates, increased time laps between development and adoption of new technology, reduced efficiency in the use of resources, unnecessary competition and duplication of efforts and increased cost of agricultural research and extension activities. Keeping in view the problems in the performance of the linkage activities the present study was designed to know the constraints faced by extension personnel in performing linkage

activities with the scientists and to get suggestions from them in order to strengthen these linkages.

The present study was carried out in northern Karnataka. Out of 12 districts, Dharwad, Belgaum, Gulbarga and Bellary were selected purposively, based on more number of research station in each district. The population of the study comprised of 80 extension personnel of different cadres viz., Joint Director of Agriculture (JDA), Assistant Director of Agriculture (ADA) and Agriculture Officers (AO) who are mainly involved in the linkage activities with the scientists.

To know the problems faced by the extension personnel in performing linkage activities a list of likely problems as prepared based on the review of literature and discussion with the experts. These problems were listed separately in the questionnaire. Further, provisions were made to the respondents to indicate the problems they were facing in performing linkage activities. These expressed problems were analysed in frequencies and percentage.

It was evident from the results of table 1 that cent per cent of JDAs expressed lack of clear cut policy guideline of linkage activities followed by 78.26 per cent of ADAs who also expressed the same constraint. Similarly majority (73.91%) of associate professors expressed sufficient manpower was not provided by partner institute when required for carrying linkage activities followed by AOs (68.51%) and JDAs (66.66%) whereas poor communication mechanism between them was expressed by 65.21 per cent of ADAs.

Table 1. Administrative and organisational constraints faced by extension personnel in performing linkage activities

Sl No	Constraints	JDAs (n=3)		ADAs (n=23)		AOs (n=54)	
		Freq.	%	Freq.	%	Freq.	%
1.	Lack of clear cut policy guidelines for linkage activities	3	100.00	18	78.26	21	38.88
2.	Organizational pressure to fuifill the respective targets	0	0.00	8	34.78	24	44.44
3.	Poor communication mechanism between them	1	33.33	15	65.21	23	42.59
4.	Sufficient manpower was not provided by partner institute when required for carrying linkage activities	2	66.66	17	73.91	37	68.51
5.	Distant location of research station and department of agriculture makes it difficult to have effective linkages.	0	0.00	9	39.13	41	75.92

The findings of the study were in line with the findings of Singh (1984), Sampo and Gilbert (1989), Eponou (1992), Wang and Liu (1994) and Lupanga (1995) who also expressed the similar type of constraints between the research and extension systems.

Majority (75.92%) of AOs expressed distant location of research station and department of agriculture office at taluka level makes it difficult to have effective linkages as a major constraint. Since AOs are placed at the village level and it may not be possible for them to visit research stations which are hardly 2 or 3 in each district and more over AOs might be busy with the extension work. Lack of conveyance facilities and finance may also come between them. This might be the reason that AOs were having less linkages with scientists.

It was evident from the table 2 that lack of proper conveyance facilities to participate in research activities was expressed by cent per cent JDAs and ADAs (78.26%) and AOs (62.

96%). Cent per cent of the JDAs expressed low efficiency in the use of available resources followed by ADAs (78.26%). All the head of the institution may feel that their subordinates are not working properly upto the satisfactory level and most of the government officials are secured and this might be the reason that cent per cent of JDAs and most of the ADAs expressed low efficiency in the use of available resources.

Also over two third of ADAs expressed they do not receive required cooperation from scientists in solving farm problems followed by JDAs (66.66%) and AO (64.81%). It was also observed during the survey that most of the extension personnel expressed that scientists were expected at two stages in farm trials viz., Flowering stage and plant protection measures. But, they are not participating in these activities.

It could be observed from the results of table 3 that majority (82.60%) of ADA's suggested the points for strengthening linkages were provision for farmers' participation in research and

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Table 2. Operational and managerial constraints faced by extension personnel in performing linkage activities

Sl No	Constraints	JDAs (n=3)		ADAs (n=23)		AOs (n=54)	
		Freq.	%	Freq.	%	Freq.	%
1.	Lack of financial provision to carry out the linkage activities	3	100.00	20	86.95	31	57.40
2.	Lack of proper conveyance facilities to participate in research activities	3	100.00	18	78.26	34	62.96
3.	Scientists are not oftenly participating in farm trial, bi-monthly workshops etc where they are expected	2	66.66	15	65.21	29	53.70
4.	Do not recive required co-operation from scientists in solving farm problems.	2	66.66	16	69.56	35	64.81
5.	Low efficiency in the use of available resources	3	100.00	18	78.26	21	38.88

Table 3. Suggestions given by extension personnel for strengthening linkages

Sl. No	Suggestions	JDAs (n=3)		ADAs (n=23)		AOs (n=54)	
		Freq.	%	Freq.	%	Freq.	%
1.	Staffing extension personnel in research station	2	66.66	18	78.26	31	57.40
2.	Provision for farmers' participation in research and extension activities	3	100.00	19	82.60	25	46.29
3.	Liaison with private organisation and NGO's by both the system	3	100.00	18	78.26	30	55.55
4.	Establishing joint review of research and extension activities	3	100.00	15	65.21	21	38.88
5.	Provision of incentives of increase their participation in linkage activities	2	66.66	19	82.60	32	59.25
6.	Joint participation in functions such as field testing, demonstrations etc. should be enhanced	3	100.00	15	65.21	17	31.48
7.	Exchange of information while using jointly developed protocols	2	6.66	17	73.91	29	53.70
8.	Sufficient transportation facilities must be made available to participate in research activities	3	100.00	19	82.60	35	64.81

extension activities, provision of incentives to increase their participation in linkages with scientists and farmers and sufficient finance and transportation facilities must be made available to participate in research activities. Whereas, 78.26 per cent suggested that the staffing extension personnel in research station and liaison with private organization and NGO's by both the systems for strengthening the linkages with scientists.

Around sixty per cent of AO's suggested that the sufficient finance and transportation facilities must be made available to participate in research activities (64.81%) and provision of incentives to increase. Their participation in linkages with scientists and farmers (59.25%) followed by 57.40 per cent of AO's who also suggested for staffing extension personnel in research station.

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