Investigation into Effectiveness of Decentralized Agricultural Extension System in Peshawar District

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Abstract

Agricultural extension is important in dissemination of innovations to farmers and agriculture production. Extension services were decentralized in NWFP in 2001. Keeping in view the effect of decentralized agriculture extension system on agricultural productivity in the country, this study was designed to investigate into effectiveness of decentralized agricultural extension system in Peshawar district, NWFP. Two villages were randomly selected having 120 farm households. As the population was known and limited, a total of 30 percent was selected by random sampling. This gave a sample size of 36 farmers from each village with the total sample size of 72 in two villages. In addition 8 personnel from extension department were also interviewed comprising of 4 field assistants (2 from each village), 2 agricultural officers (1 from each village), 1 district Agriculture Officer and 1 executive district agriculture officer. The total sample size came to 80 respondents including farmers and extension personnel. A lesser than half of the farmer respondents (44.5%) were middle aged. It was concluded that farmer respondents critically viewed the decentralized system in agriculture extension and voted it as better than the previous one but due to multifarious problems they had still a long way to achieve the destination of prosperity.

Key words: Decentralization, extension system, NWFP

Introduction

In order to meet the requirements of rapidly growing population, agricultural production as well as productivity needs to be enhanced. Thus, for the development and prosperity of Pakistan, it is the dire need of the day to enhance agricultural production many fold to cope with the challenge of the ever increasing demand for food and fiber. Improvement in agricultural production and productivity can be brought about by adopting modern scientific methods of farming that include technological components as well as new crop varieties with increased yield and resistance to insect, pest and diseases, improved cultural practices, chemical fertilizers and plant protection measures etc. It is the duty of the researchers to modify continuously the technological components of production with the demand of changing situations. But all those research efforts will be of no use, if new research findings are not diffused among the farming community, who are the ultimate users.

The job of diffusing innovations among the farmers is performed by the extension services, which acts not only as the carrier of improved technology from researchers to the farmers but also provides opportunities of conveying questions of immediate importance from farmers to the researchers.

Agriculture Extension organization in NWFP is perhaps the oldest in organizational structure within the agriculture department and is a continuation of the traditional system. It does not suit the present day requirements of a more progressive and integrated approach to agriculture. It is neither operationally attuned to the identification of farmers problems nor to a prompt response to their needs. The weaknesses, both in its structure as well as its methodology for transfer of technology to the farmers must be addressed on priority basis if the entire system of extension is to be strengthened and revitalized. For this purpose the government announced decentralization plan on August 14, 2001. Keeping in view the effect of decentralized agriculture extension system on agricultural productivity in the country, the study had been designed to investigate into effectiveness of decentralized agricultural extension system in Peshawar district.

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Materials and Methods

As the population was known and limited, a total of 30 percent was selected by random sampling. This gave a sample size of 36 farmers from each village with a total sample size of 72 in two villages. In addition 8 personnel from extension department were also interviewed that were 4 field assistants (2 from each village, 2 agriculture officers (1 from each village, district agriculture officer and executive district agriculture officer. The total sample size came to 80 respondents including farmers and extension personnel. The data were collected with the help of pre-tested questionnaire.

Results and Discussion

Table I shows that lesser than half of the farmer respondents (44.5%) were middle aged i.e. 36-53 years. However, 33.4 and 22.1% of the farmers were young and old aged, respectively.

Table I: Distribution of farmer respondents according to their age

Age (years)	Frequency	Percentage
18-35 (Young)	24	33.4
36-53 (Middle aged)	32	44.5
Above 53 (Old)	16	22.1
Total	72	100.0

Source: Field data

Table II: Distribution of farmer respondents according to their educational level.

Educational level	Frequency	Percentage
Illiterate	32	44.4
Upto primary	11	15.3
Primary to middle	12	16.7
Middle to matric	9	12.5
Matric and above	8	11.1
Total	72	100.0

Source: Field data

Table III: Distribution, Mean, Standard deviation and rank of order of respondents according to their perception of rating regarding different extension related activities.

Extension Activities	Rating									
	1		2		3		4		5	
	N	%	N	%	n	%	n	%	n	%
Plant production technology	3	4.7	4	6.3	32	50.0	24	37.5	1	1.5
Plant protection technology	2	3.1	1	1.6	29	45.3	30	46.8	2	3.2
Post harvest technology	14	21.9	11	17.2	35	54.7	4	6.2	-	-
Marketing	21	32.8	18	28.2	19	29.7	6	9.3	-	-

Extension Activities	Mean	SD	Rank Order
Plant protection technology	3.07	1.293	1
Plant production technology	2.89	1.273	2
Post harvest techniques	2.18	1.155	3
Marketing	2.08	1.536	4

Source: Field data

n=64

Scale: 1 Very poor 2 Poor 3 Average 4 Good 5 Very good

Table IV: Distribution, Mean, standard deviation and rank order of farmer respondents about their response for the extension methods being used by EFS after decentralization

Methods	Rating									
	1		2		3		4		5	
	n	%	n	%	N	%	N	%	n	%
Farm and home visit	7	10.9	16	25.0	18	28.1	21	32.8	2	3.2
Office calls	16	25.0	25	39.0	21	32.8	2	3.2	-	-
Telephone calls	20	31.3	14	21.9	23	35.9	7	10.9	-	-
Personal letters	26	40.6	18	28.2	20	31.2	-	-	-	-
Method demonstration meetings	13	20.3	17	26.6	22	34.4	12	18.7	-	-
Result demonstration meetings	10	15.6	12	18.8	18	28.1	15	23.5	9	14.0
Lecture meetings	16	25.0	8	12.5	24	37.5	10	15.6	6	9.4
Farmer training meetings	3	4.7	5	7.8	21	32.8	28	43.8	7	10.9
Group discussion	11	17.2	22	34.4	28	43.8	3	4.6	-	-
Seminar/Workshops	26	40.6	16	25.0	20	31.3	2	3.1	-	-
Field days	24	37.5	18	28.2	16	25.0	6	9.3	-	-
Print media	12	18.8	19	29.7	23	35.9	7	10.9	3	4.7
Radio	9	14.0	13	20.4	16	25.0	21	32.8	5	7.8
Television	16	25.0	18	28.2	20	31.2	8	12.5	2	3.1

Methods	Mean	SD	Rank order
Farmer training meetings	3.10	1.426	1
Result demonstration meetings	2.68	1.537	2
Radio	2.67	1.473	3
Farm and home visit	2.60	1.370	4
Lecture meetings	2.42	1.473	5
Telephone calls	2.31	1.851	6
Print media	2.25	1.286	7
Method demonstration meetings	2.24	1.250	8
Television	2.14	1.282	9
Group discussion	2.10	1.077	10
Office calls	1.90	1.037	11
Filed days	1.83	1.151	12
Seminars/ Workshops	1.75	1.071	13
Personnel letters	1.69	1.002	14

Source: Field data

n=64

Scale: 1 Very poor 2 Poor 3 Average 4 Good 5 Very good

Table II indicates that 44.4% of the farmer respondents were illiterate. However, 55.6% of the farmer respondents were literate who fell between primary to matric and above educational categories.

The present research results are comparable to those of Khan (2002) who stated that majority (57.5%) of the respondent were literate or educated while the remaining 42.5 % were illiterate. Most of the literate respondents (16.7%) belonged to primary to middle category. However, number of respondents (15.3%) was up to primary and 12.5 % were from middle to matric categories. Only 11.1 % respondents were having education matric and above.

Table III indicates that under decentralized extension system more emphasis was made on plant protection and production technologies and methods, respectively. However, marketing was least concerned. The same situation was found in rank order where plant protection technology ranked 1st with mean 3.07 and (SD) 1.293, followed by plant production technology and post harvest techniques ranked 2nd and 3rd with mean 2.89 and 2.18, respectively.

Whereas, marketing was at bottom with mean value 2.08 and SD 1.536. Table IV shows that farmer training meetings were the most used extension education method used by extension field staff. Its inclination was average to very good on given scale.

It is interesting to observe that farm and home visit did not gained such importance as generally observed and it might be due to the hilly area and less availability of transport that EFS were unable to approach every farmer individually.

Table V: Distribution, Mean, standard deviation and rank order of farmer respondents according to the rate of impact of decentralization

Statements	Rating									
	1		2		3		4		5	
	n	%	n	%	n	%	n	%	n	%
It increases awareness regarding agricultural practices	1	1.4	3	4.2	33	45.8	26	36.1	9	12.5
Increases involvement in prog. planning, its implementation and evaluation	14	19.4	19	26.4	18	25.0	21	29.2	-	-
Helps in transferring latest agricultural technology	11	15.3	17	23.6	26	36.2	13	18.0	5	6.9
Under decentralization all the farmers treat equally	19	26.4	16	22.2	25	34.7	7	9.8	5	6.9
Increases interaction of extension workers with farmers	10	13.9	15	20.8	20	27.8	19	26.4	8	11.1
Helps in conducting field research	21	29.2	18	25.0	24	33.3	9	12.5	-	-

Statements	Mean	SD	Rank order
It increases awareness regarding agricultural practices	3.54	0.821	1
Increases interaction of extension worker with farmers	3.00	1.222	2
Helps in transferring latest agricultural technology	2.78	1.129	3
Increases involvement in prog. planning, its implementation and evaluation	2.64	1.104	4
Under decentralization all the farmers treat equally	2.49	1.187	5
Helps in conducting field research	2.29	1.027	6

Source: Field data

n= 72

Scale: 1 Strongly agree 2 Disagree 3 Average 4 Agree 5 Strongly disagree

The other reason was as in Decentralized Extension System more emphasis was made on the seasonal farmer trainings as compared to farm and home visits. The least utilized method was personnel letters. Farmer training meetings ranked 1st with mean 3.10 and SD 1.426. The result demonstration meetings and radio ranked 2nd and 3rd with mean 2.68 and 2.67, and SD 1.426 and 1.537, respectively. However, the least utilized teaching method was personnel letters i.e. 14th ranked with mean 1.69 and SD 1.002. The above research findings negate the study of Oladele (2002) who examined the communication methods used in research-extension-farmers interface in southwestern Nigeria. A cross-sectional survey was used to elicit data from randomly selected 10% of each population for researchers and extension agents. The results of the study showed that extension agents communicated with farmers frequently using the personal contact (83.4%) while communication devices used by researchers to reach farmers were only high for demonstrations (75%) and radio (65%). Majority of

the extension agents (80.8%) indicated personal contact and belonging to the same project team (52%) as the most frequently used communication links with researchers.

Again same picture was observed when study the results achieved by Hussain (2004) who found that the extent of use of various extension methods/ media used by EFS of Rafhan Maize Products Co. showed that 18.5%, 13.5%, 17.1%, 10.0% and 19.2% of the respondents reported never, rarely, occasionally, mostly and frequently, use the literature as extension method, followed by 11.4%, 15.7%, 12.1%, 8.5% and 11.4% of the respondents reported never, rarely, occasionally, mostly and frequently used the discussion meetings as extension methods for the dissemination of information regarding maize production. The respondents reported never (5.0%), rarely (10.7%), occasionally (15.0%), mostly (7.1%) and frequently (9.2%) use of telephone calls. The lecture meetings (5.1%) and farm and home visits were (2.1%) used frequently by EFS as reported by the respondents. The method demonstrations, result demonstrations and farmers days were not used frequently by EFS of Rafhan maize products Co. Ltd. Table V reveals that the impact of decentralization was effective as it increases awareness regarding agricultural practices and also increases interaction of extension worker with farmers as both statements had inclination from average to agree categories. On the other hand these two statements occupied 1st and 2nd rank order with mean 3.54 and 3.00, and SD 0.821 and 1.222, respectively. However, under decentralization all the farmers treat equally and help in conducting field research were at bottom with rank order 5th and 6th having mean 2.49 and 2.29, and SD 1.187 and 1.027, respectively.

Conclusion and Recommendations

It was concluded that farmer respondents critically viewed the decentralized system in agriculture extension and voted it as better than the previous one but due to multifarious problems they had still a long way to achieve the destination of prosperity.

The government should further strengthen extension services in the province so that these should effectively serve farming community better in order to increase agriculture production.

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