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Impact of Devolution on Agricultural Extension System in the Central Punjab: Perceptions of Agricultural Extension Workers

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Abstract

The study was carried out to know the impact of devolution of powers on agricultural extension system in the central Punjab. For this purpose, 36 respondents were taken as study respondents through simple random sampling technique. The data revealed that overwhelming majority of respondents perceived that in the devolution system, among three tiers at district level, District Coordination Officer (DCO) was still highly involved in financial matters, implementation of work plan and monitoring/supervision of extension staff as reported by majority of respondents (97%), (94%), (84%) respectively. Whereas District Nazim is highly involved in intra-district transfer of staff and development of work plan as reported by 91% respondents in both matters. It was amazing that being the head of agriculture at district level, EDO was behind the scene. A significant proportion of respondents (86%), (89%), and (75%) disagreed with the statement that facilities of transport, housing and medical have been increased after devolution of agricultural extension system. The respondents of the study area compared pre and post devolution of agricultural extension system periods and perceived that availability of inputs have increased in the post devolution regime. The data also revealed that respondents of the study area perceived that no conclusion could be drawn regarding the influence of devolution of agricultural extension system on extension methods. The existing system was also compared with the old system, 61 % respondents perceived that existing system is better than old system if some changes in devolution framework are to be made.

Keywords: Devolution, Extension, Respondents, Perception

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Introduction

Agriculture is the means of livelihood and the main frame of rural life in developing countries (Jazairy, 1992). It holds a vital position in the present scenario. "Agriculture has always played a key role in changing societies" (Pickering, 1983). About 61% of the labour force in developing countries was employed in agriculture (Gill, 1991). However, agricultural production in developing countries continued to be low and it was generally believed that dearth of information tailored to local needs and lack of technical knowledge at the farm level are the principal factors for this low and stagnant production (Muhammad, 1994).

Pakistan is also a developing country with agro-based economy, agricultural sector contributes nearly 22 % to GDP and provides employment to 44.8% of the total work force. Country's population (65.9 %) living in rural areas is directly or indirectly linked with agriculture for its livelihood (Govt. of Pak., 2006). The past, present and future of the country is totally welded with agricultural sector; hence the development of this sector is unquestioned.

The four major crops cotton, rice, sugarcane and wheat contribute 1.9%, 1.3%, 0.7% and 3.0% to GDP and accounts for 8.6%, 6.1%, 3.4 % and 13.7%, respectively to the value added in agriculture. But in spite of such a great importance, the crop yields in Pakistan are generally low as compared to international yield (Govt. of Pak., 2006).

However, agricultural production of almost all crops obtained in the country is far less than that achieved in developed countries. Research results from various agricultural research institutes usually remain confined to researchers for references and progressive farmers for trials. The research results are also seldom translated and disseminated to the common farmers who make up the vast majority of farming community. We need to take the successful research results at the doorstep of the farmers, especially to the small farmers, which they can understand and apply (Ayaz, 1993).

Research and experience of the developed countries have shown that key to increase per hectare yield lies in the adoption of modern technologies (FAO, 1985). Increasing population and limited resources are global issues. The problems are more serious in almost all developing countries. Pakistan is no exception. To meet the needs of rapidly growing population, agricultural production will have to at least double during the next two decade (Choudhry and Sidique, 1987). This can be only achieved by narrowing the gap between per hectare yield obtained at experimental stations and those of average farms. Agricultural production is a very complex system. It depends on several interrelated component such as development of appropriate production technology, dissemination of modern technologies to the end users, and formulation of suiTable agriculture policies. Dissemination of appropriate technologies is of vital importance if benefit is to be derived from technological advises.

Agricultural extension is one of the institutional components, which promotes the transfer and exchange of information that can be converted into functional knowledge. Agricultural extension, which is essentially a message delivery system, has a major role to play in agricultural development. It serves as a source of advice and assistance for farmers to help them improving their production and marketing (Adams, 1988). Agricultural extension also provides a channel through which farmer's problems can be identified for research and modification of agricultural policies to the benefit of rural communities (FAO, 2002).

The Govt. of the Pakistan has launched various agricultural extension programmes for the enhancement of agricultural production of farming community. The first effort of this nature was undertaken in the form of the Village Agricultural and Industrial Development (Village AID) programme in the 1952 to 1962. It was a multipurpose programme; the main objectives were to raise rural income through improved farming (Waseem, 1982).

Crop maximization another programme was introduced in different parts of the country. Its aims were maximizing commodity production through integrated approach. A separate project was also launched for major commodities i.e., the cotton maximization of project was initiated in 1977 by the Punjab Agricultural Extension Department for cotton growing area. Rice maximization project of PARC initiated in 1977 in Sindh area and Halian crop maximization programme for wheat, maize and rice were launched in 1985.

The technology transfer unit was created in 1982 by PARC at NARC is Islamabad. The unit provided a link between scientists and farmers. It aimed at disseminating modern technology among the farmers and provided feedback to researchers. University of Agriculture, Faisalabad was also involved in providing extension services to farming community, also Sindh Agriculture University, Tandojam, has established a Farmers Advisory Cell. The programmes have had positive impact on the production of the commodities for which there was launched (Choudhry and Siddique1987).

In Pakistan, the Training and Visit (T&V) programme was introduced in 1970s. The philosophy and concept of the T&V system was based on a triangular relationship between researchers, extension workers, and farmers. The major purpose is, through massive transfer of technology gaps between the modern technologies evolved at research farms and practiced by the majority of traditional farmers should be abridged.

The situation clearly indicates that agricultural production in Pakistan depends on many factors including isolation of agricultural education, research and extension wings (NRSP, 1999).

In Pakistan, with the change of political regime in 1999, the Govt. of Pakistan introduced a new system named as Devolution of Power Plan, which is a more advanced form of decentralization, and designed to strengthen the functions of local government and empower the elected representatives with more authority and responsibility at the grass root level. (FAO, 2001). The devolution of power plan brought administrative changes in the entire public sector departments including Agricultural Extension department.

Under the new setup of agricultural extension, each district is managing its agricultural extension activities where the functions of all sister organizations such as Water Management, Fisheries, Livestock, Soil conservation, Forestry, etc, are put under one manager called as Executive District Officer of Agriculture (EDOA), designation of Deputy Director Agriculture (DDA) has been changed as District Officer Agriculture (DOA) who now works under the EDOA. The EDOA reports to the District Coordination Officer (DCO) who is answerable to the elected District Nazim (Administration), whereas the line departments provide the technical backstopping and monitor the cross-district agricultural development projects. DOA and Deputy District Officer of Agriculture (DDOA) at district and tehsil levels assist EDOA, respectively. Agricultural Officers (AO's) and Field Assistants (FA's) are working at Merkaz and Union Council level respectively (World Bank, 2003). Keeping in view the concept of new administrative setup, the question is that whether the system has any effect on

the working EFS. The present study determines the impact of administrative changes on the working efficiency of EFS after decentralization in the Punjab, Pakistan.

To know the impact of devolution on Agriculture Extension System in the country especially the central Punjab, the present study has been designed to analyze the changes in Agricultural Extension System in the devolution era and their impact on Agricultural Extension staff.

Materials and Methods

This research is based on primary data; the primary data were collected through pre-tested questionnaire. The study was conducted in four randomly selected districts namely Kasur, Faisalabad, Toba Tek Singh and Jhang districts of Punjab province during 2005-06.

One Executive District Officer Agriculture (EDOA), District Officer Agriculture (DOA), from each district, Fourteen Deputy District Officer Agriculture (DDOA) from each tehsil of selected districts ware selected. Agriculture Officers (Extension) (AO), three AO's from Jhang, Kasur, Toba Tek Singh and five AO's from Faisalabad districts, thus total 14 AO's were also selected randomly. Total 36 respondents were taken as study respondents.

The collected data were fed to the computer. Keeping in view requirements of the study, simple statistical techniques like averages, cross tabs and percentages were calculated.

Results and Discussion

The degree of involvement of agriculture extension officials was asked from respondents and was recorded in no, low, medium and high categories.

Comparative Involvement of District Nazim, District Coordination Officer and Executive District Officer (Agriculture) in different official matters of agricultural extension system

Table 1 depicts that among three tiers at district level, DCO was highly involved in financial matters, implementation of work plan and monitoring or supervision of extension staff as said by majority of respondents (97%), (94%) and (84%) respectively. District Nazim was highly involved in intra-district transfer of staff as well as development of work plan as reported by majority of respondents (91%) in both activities. However, it was concluded that DCO was involved in more official matters of agricultural extension system at district level. Surprisingly, EDO who is the agriculture head at district level was acting behind the scene.

Table 1: Comparative Involvement of District Nazim, District Coordination Officer and Executive District Officer (Agriculture) in different official matters of agricultural extension system

(Percent Respondents)

Official matters	District Nazim			DCO			EDO		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
Financial	9	-	91	3	-	97	-	36	64
Intra-district transfer of staff	6	3	91	8	3	88	3	25	72
Development of work plan	6	3	91	3	8	89	-	22	78
Implementation of work plan	6	6	89	3	3	94	-	22	78
Monitoring / Supervision of staff	8	8	83	8	8	84	3	22	75

Comparative Involvement of Executive District Officer Agriculture, District Officer Agriculture Extension and Deputy District Officer Agriculture Extension in different official matters of agricultural extension system

Table 2 clearly depicts that when three agriculture extension officers were studied collectively and comparatively, it was found out that EDO (Agriculture) still holds a prominent position among extension officials and has dominant authority in all extension activities like financial, transfer of staff, development and implementation of work agriculture extension work plan and subsequent monitoring / supervision of staff, after the DCO and District Nazim.

Table 2. Comparative Involvement of Executive District Officer (Agriculture), District Officer Agriculture Extension and Deputy District Officer Agriculture Extension in different official matters of agricultural extension system

(Percent Respondents)

Official matters	Involvement Level EDO				Involvement Level DO				Involvement Level DDO			
	N	L	M	H	N	L	M	H	N	L	M	H
Financial	-	-	36	64	3	33	36	28	36	-	28	36
Intra-district transfer of staff	-	3	25	72	25	6	28	42	42	33	-	25
Development of work plan	-	-	22	78	3	3	28	67	17	11	25	47
Implementation of work plan	-	-	22	78	3	3	28	67	19	3	-	78
Monitoring /Supervision	-	3	22	75	-	3	28	69	-	8	33	58

Where
N= No involvement, L= Low, M= Medium and H= High involvement level

Perceptions of Agricultural Extension Staff (AES) about agriculture extension system after the devolution:

Table 3 below depicts that majority of the respondents (64%) disagreed that the budget allocation has increased after devolution. A significant proportion of respondents (86%), (89%), and (75%) disagreed that the facilities of transport, housing and medical have been increased respectively after devolution. But in case of TA/DA allocation has increased after devolution (58% respondents were disagreed with such type of facility, whereas, only 42% respondents were agree with it). The data also depict that 44% respondents agreed with that the farmers are taking more interest in the extension activates after devolution while 36% respondents were disagreed with it. The Table 3 also depicts that more respondents (42%) agreed with that the farmers' knowledge about agriculture is increased after devolution while 36% respondents were disagreed with it. More than half of the respondents of study area agreed that research extension linkage has been improved after devolution, whereas, half of the respondents were disagreed with that coordination with input-supply agencies has been improved. In contrast, half of the respondents agreed with that input availability to farmers have been improved after devolution.

Table 3. Perceptions of Agricultural Extension Staff (AES) about agriculture extension system after the devolution.

(Percent Respondents)

Aspects	**Disagree**	**Undecided**	**Agree**
Budget allocation has been increased	64	3	33
Transport facilities have been increased	86	-	14
Housing facilities have been increased	89	-	11
Medical facilities have been increased	75	11	14
TA/DA allocation has been increased	58	-	42
Farmers are taking more interest in extension activities than before	36	19	44
Farmers' knowledge is increased	36	22	42
Farmers' attitude towards extension is improved	22	19	59
Research extension linkage has been improved	42	6	52
Coordination with input-supply agencies has been improved	50	19	31
Inputs availability to farmers has been improved	31	19	50

Pre and Post Devolution Agricultural Extension Periods

Table 4 depicts that majority of respondents (47%) perceived that efficiency of agricultural extension workers has increased in post devolution period. Competency of agricultural extension field staff has increased as perceived by the majority of respondents (56%) in post devolution agricultural extension periods. It is also evident that most of the respondents (46%) perceived that mobility of field staff; research extension linkage and dissemination of information have increased. Fifty percent respondents perceived that farmers' participation in training programmes of agricultural extension has increased in post devolution period, the conclusion is similar as discussed by Bird (1994) who argued that decentralized/ devotion of extension systems have showed evidence of increased mobilization. Majority of respondents perceived that awareness about new technology among farmers increased in post devolution periods. It is very surprising that majority of the respondents opined there was no change in adoption of new technology among farmers, agricultural production and farm income of farming community during pre and post devolution of agricultural extension system. The respondents were of the view that no concrete conclusions could be drawn in short period of devolution time.

Table 4. Comparison of pre and post devolution agricultural extension system periods

(Percent Respondents)

Aspects	Increased	Decreased	No change
Efficiency of extension system	47	28	25
Competence of extension field staff	56	31	14
Mobility of field staff	44	31	25
Research extension linkage	44	39	17
Dissemination of information	47	19	33
Farmers' participation in training programmes	50	14	36
Awareness of new technology among farmers	44	17	39
Adoption of new technology by farmers	47	6	47
Agricultural production	42	8	50
Farm income	36	8	56

Supply of inputs during pre and post devolution of agricultural extension system periods

The Table 5 depicts majority of respondents told that farmers harvested the benefits of availability of inputs like seed, fertilizers, pesticides, weedicides and agricultural credit to farmers have increased in the post devolution regime, however there is no change in availability of agricultural machinery at subsidized rate in post devolution of agricultural extension system period.

Table 5: Supply of inputs during pre and post devolution of agricultural extension system periods

(Percent Respondents)

Aspects	Increased	Decreased	No change
Availability of seed	44	19	36
Availability of fertilizers	58	19	22
Availability of pesticides	61	-	39
Availability of weedicides	61	-	39
Availability of agricultural machinery at subsidized rate	50	-	50
Availability of agricultural credit	53	-	47

Influence of devolution on agricultural extension activities

The main purpose of agricultural extension workers is to provide technical information to farmers about latest developments in agricultural technologies so that the productivity by farmers can be increased. It was observed that yet in the initial stages of the devolution of agricultural extension system has created a mixed impact on farmers in the selected districts.

Table 6. Influence of devolution on extension activities

(Percent Respondents)

Activities	Positive	Negative	No change
Farm visits	50	-	50
Farmers' days	47	-	53
Field days	44	3	53
Exhibitions	44	6	50
Demonstrations	50	3	47
Wall chalking	39	17	44
Printing of agricultural material	47	25	28
Distribution of print material among farmers	61	6	33
Farmers' training programmes	50	-	50
Workshops	42	8	50
Seminars	36	14	50

The Table 6 reveals that most of the respondents gave opinion that there was no change in frequency of farmer days, field days, exhibitions, workshops, farm visits, farmers training programs and seminars. Regarding farm visits, half of the respondents gave opinion that positive change has been occurred while the rest respondents gave opinion that no change was observed in farm visits in post devolution period. Similarly no conclusion could be drawn regarding farmer's training programs because 50% were of the opinion that positive change has been occurred and the rest of the respondents gave opinion that there was no change in post devolution period. Devolution system has a positive impact on demonstrations as perceived by 50% respondents. Distribution of print material among farmers also brought a positive change as perceived by 61% respondents.

Effectiveness of agricultural extension system after the devolution and comparison of the previous with new system

Technically speaking, devolution is the shifting of authority for extension to lower tiers of government and it is more crucial in the process to weigh up and decide what is important and how the various issues are treated (Deller, 1998). Decentralization within extension services and devolution of public administrative powers is an important move towards the evolution of client-driven processes. (Garforth, 1997). Before devolution, each Provincial department of agriculture had a directorate-General of agricultural extension, administrating a large extension network down to the union council level. The Government of Pakistan introduced administrative reforms called "Devolution Plan" under which most of the programmes, implementation, coordination and inter-agencies linkages responsibilities have been entrusted to the district level management. When extension officials were asked about the extent to which devolution has been effective in improving agricultural extension system; no valid conclusion could be drawn, as 36% respondents reported it as a less effective system as it is depicted in the Table 8 below.

Table 8. Effectiveness of Agricultural Extension system after the devolution and comparison of the old with new system.

(Percent Respondents)

Respondents	Less	Medium	High
Extension Staff	36	28	36
Comparison of the Old with New System			
	Yes	**No**	
Extension Staff	61	39	

Another 36% respondents perceived the devolution system is highly effective. Remaining 28% respondents perceived that system is moderately effective. Similarly, when the new system was compared with the old system, 61 % respondents perceived that new system is better than old system if some further changes in devolution framework are made (See Table 8).

Merits and Demerits of new system:

Following common merits of the devolution system have been concluded as the result of the present research study:

- The interaction between government officers and public has increased.
- Most of the problems of the extension staff can be solved at district level.
- Development activities have increased.

- Monitoring is very easy in the devolution system.
- Devolution system has increased the efficiency of agriculture staff and farmers resulting in higher yield per acre.

Following common demerits of the devolution system have also been found out:

- Undue involvement of local representatives in administrative affairs was found out.
- Transfers of the staff happen on political grounds.
- Postings and promotions take place through political representatives.
- Rules and regulations have not been framed properly for effective working of devolution system.

Conclusion and Recommendations

- Respondents (36%) declared devolution as ineffective system.
- Respondents (50%) were of the view that positive changes have been occurred in extension activities after devolution.
- Field staff should be strengthened and empowered by providing them financial powers to work independently.
- Seniority and promotion of the staff should be maintained at district level.
- Rules of the devolution system should be revised.
- Undue political pressure from the district government should be minimized.
- Changes in devolution framework should be made to increase working capacity of field staff.

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