

# **The Role of Public Agricultural and Forestry Extension Services in Mountainous Areas of the Northwestern Part of Pakistan**

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## **Summary**

Agriculture and forestry sectors activities are generally considered parallel, wherein different institutions are working. In Pakistan in general and in mountainous areas in particular, people have less resources for food and wood. Extension services are important for improving the food security situation and for advancing the socio-economic conditions of farmers, through the introduction of modern technologies. Agricultural extension promotes the transfer of modern technology and innovations to improve the livelihoods of farming community members. In addition, forestry extension services are designed to meet the needs of small-scale producers in forested areas through agro-forestry techniques. Effective collaboration and linkages among different institutions working for similar purposes is essential for the achievement of the desired goals.

Public sector extension services of developing countries have been criticized rigorously for their poor efficiency. These rural advisory services have a mandate to transform the livelihoods of farming community through effective cooperation with sister organizations or departments. However weak institutional linkages between different service providers in the agriculture sector are responsible for the poor performance of agriculture in Pakistan. Similarly, forestry extension services also face the problems of weak linkages with allied state departments in Pakistan. Among these institutional problems, the lack of coordination between institutions (local government and the forestry department) is regarded as the most severe.

Keeping in view the importance of linkages among agricultural and forestry extension services the present study was conducted to examine “The Role of Public Agricultural & Forestry Extension Services in Mountainous Areas of the Northwestern Part of Pakistan”. The objectives of the study were to

identify the linkages between agricultural and forestry extension field staff, the factors hindering the effectiveness of such linkages and the factors responsible for the adoption of innovations introduced by agricultural and forestry extension services among the farming community in the study area.

For this study, the data was collected through field surveys during August-September 2012 and November-December 2013, from two districts, Mansehra and Swat of Khyber Pakhtunkhwa Province, Pakistan. A total of 360 farmer respondents were interviewed in two districts. Field staff from both agricultural and forestry extensions services working in the study area were also interviewed. The data was analyzed using a descriptive method for frequencies, percentages, means, and standard deviations. The Mann-Whitney U-test and binary logistic regression were used for data analysis.

The analysis of the basic data shows that the majority of field staff from agricultural and forestry extension services were in middle-aged and elderly, respectively, had a low level of education, were low in the organizational hierarchy and had significant differences in work experience. Most field staff from agricultural and forestry extension services considered their tasks related only to agricultural crops or trees, respectively. The analysis shows that field staff from agricultural and forestry extension services had common interests in fruit trees, an area in which they both offer similar extension activities. Analysis also shows that there was no significant contact and only weak formal and informal interaction among staff from agricultural and forestry extension services. According to field staff only 30-40(%) of the farmer population living in their working territories adopted new technologies.

The analysis of basic data from farmer surveys revealed that in the study area the majority of respondents were 31 - 45 years old, had up to 10 years of schooling, had up to 20 years of farming experience with smaller areas of agricultural land and medium-size areas of forest land, and that half of agricultural farming respondents were tenants whereas the majority of respondents had ownership of forest land. The analysis also shows that a large majority of respondents had income from the agriculture sector. Forestry was the second greatest source of income and remittances were third. Analysis shows that the majority of farmers had contact with field staff from agricultural and forestry extension services twice a month during last year. The majority of farmers expressed satisfaction with agricultural extension services, whereas almost half of respondents were not satisfied with forestry extension services. Analysis shows that the majority of farmer respondents had acquired knowledge specifically for fruit trees from both agricultural and forestry extension staff on several occasions. The survey also revealed that extension field staff paid less attention to farm and home visit methods and that the frequency of such visits was minimal, due to which a very small number of farmers had a positive attitude towards the adoption of innovations introduced by agricultural and forestry extension services.

This study identified a gap in the linkages between agricultural and forestry extension services. It was concluded that linkages between agricultural and forestry extension services can be established by implementing common activities related to fruit trees. Differences in age and educational background, reduced field visits and weak formal linkages with field staff were found as factors hindering the effectiveness of extension services. Low levels of education and small land holdings among farmers and ineffective extension services were identified as factors responsible for not

adoption of modern technologies. It was also concluded that through by strengthening contact between farmers and field staff and providing of effective extension services, the adoption of modern farming practices could be increased within the farming community.