

FARMERS PERCEPTION TOWARDS FARM FORESTRY IN DISTRICT SWABI

**Ahmed Zamir, Muhammad Waqas Khan, Muhammad Waqas Khan,
Waseem Ullah and Rizwan Ullah***

ABSTRACT

Study on farm forestry in District Swabi was conducted to check the perception of farmers towards farm forestry and determined the constraints in way of tree planting on farmlands. The results showed that about 70% of the farmers predicted the advantage of the tree planting as being the source of fuel wood and tobacco kilns. They further perceived the role of tree planting as; 50%, 40%, 30% role in shade, income and other environmental benefits respectively. It was observed that educated farmers favored tree farming as compared to the less educated one. Further farmers listed many problems when questioned about the constraints in planting trees on farmlands. Lack of availability of growing stock, lack of land for planting trees and problems regarding marketing was raised by 30%, 10% and 25% of the farmers. Results clearly depict that farm forestry in district Swabi is increasing day by day as the farmers get aware of its fruitful consequences.

INTRODUCTION

Country Pakistan has one of the poor forestry resources and lowest percentage of forest area in the world (Mcketta, 1990). The existing forest cover is unable to meet the growing demand for wood and its products in Pakistan which is the seventh most populous country in the world and the fourth most populous in Asia with an annual population growth rate of 2.1%. The current forest area i.e. 4.7% is depleting due to numerous factors including continuous cutting of forest trees and many others (Government of Pakistan, 2003). Pakistan has the 2nd highest rate of deforestation in the whole world (FAO, 2000). Moreover, for a number of administrative, financial, political and technical reasons tree cutting in forests is more than regeneration rates of trees. The output from the state forests is not sufficient to fulfill the demand for timber and fuel wood, raw material for industries, energy requirements of agricultural sector and fodder for the livestock (Tanveer *et al.*, 2012).

Sixteen (16) farmers from four villages were randomly selected. This study was designed with the main objective to assess the farmer perception about the farm forestry in Swabi.

FAO in 2000 stated that world's forest cover amounts to 3.9 billion

*

Authors are at Forest Education Division, Pakistan Forest Institute, Peshawar

hectares, which is about 30% of the total land area. Forest cover is separated into four proportion groups i.e. (>70%, 40-69%, 10-39%, 0-9%). Pakistan falls in the last category i.e., 0-9% having 3.1 forest cover. This is a very serious and alarming situation in the country. Pakistan is a forest lacking country with only 0.3 hectare as per capital compared to the world standard of 1 hectare per capita. This forest area per capita is going downwards with increasing population at 1.90%, yearly. The only way to enlarge wood production is to plant trees on private or farm lands so as to meet the demand for different purposes. It is estimated that state forests contribute only 14% of the timber and 10% of the fuel wood, whereas 46% of the timber and 90% of the fuel wood requirements are being met from farmlands (Government of Pakistan, 2004). Thus farm forestry is playing a very important role in satisfying our wood necessities. It is also estimated that 10% area of our farmlands can be with no trouble brought under tree cover without harming agricultural crops. Agroforestry is among the recommended strategies to amplify tree cover on farmlands but the farmers are not taking initiatives (Nouman *et al.*, 2007).

People's participation on farm forestry activities is low because most social forestry projects were mainly focused on biological and technical concerns (Tanveer *et al.*, 2012). The greatest need for farm forestry products and hints the greatest potential impact of farm forestry development, lies with the small farmers (Dove, 1992).

16 farmers from 64 households were randomly selected and interviewed for data collection.

MATERIALS AND METHODS

The survey was conducted during the period between August 2014 to September 2014. Stratified random sampling design was applied for the selection of the respondents. Villages selected have the following characteristics:

- High literacy and on metal road
- High literacy and away from metal road
- Low literacy and on metal road
- Low literacy and away from metal road

The perception of the farmers about farm forestry is not known so the researchers had to determine perception in related to socio economic characteristics. By keeping the above characteristics in mind, a research was conducted in the form of questionnaire consisting 16 questions.

Questionnaire was in English, yet the questions were asked in Pashtu language for the convenience of the interviewers.

RESULTS AND DISCUSSIONS

Existing Trees on Farmlands

Data about total number of trees of all sizes of the farmlands of the individual respondents was classified into four groups. It was found that majority of the farmers 37% have less than 100 trees on their farmlands. A considerable number i.e. 22% had between 301-500 while receiving 22% of farmer had tree of more than 500 in numbers.

Table 1. Number of trees on farmlands

Number of trees	Frequency	Percent
<100	24	37
100-300	12	19
301-500	14	22
>500	14	22
Total	64	100

Advantages of Trees on Farmlands

Some of the common advantages as perceived by farming community were fuelwood, timber, sale and fodder etc. For example 42% of the farmers reported fuel wood as the major advantage of trees. On the other hand 26% reported wood income as a main source, 18% as for shade, timber as 3% and 11% environment plus manure. Timber and fodder were not considered as most important tree products.

Table 2. Farmers perceptions about advantages of trees on farmlands

Advantages of trees	Frequency	Percent
Income	17	26
Shade	11	18
Fuelwood	27	42
Timber	2	3
Environment + manure	7	11
Total	64	100

Disadvantages of trees on Farmlands

Replies to the questions asked from the respondents against the disadvantages of trees on farmlands were more or less in conformity with the general view held by the farmers of the country. Table 3 showed that majority of the farmers i.e. 62% cited reduced agricultural productivity as the main disadvantage of farm trees. About half of the farmers considered difficulty in ploughing as one of the next major disadvantage.

Table 3. Farmers perceptions about disadvantage of trees on farmlands

Disadvantage of trees	Frequency	Percent
Low crop production	40	62
Difficulty in ploughing	22	34
Occupy space	2	4
Total	64	100

Relationship between Farm Size and Perceptions about Tree Planting

Table 4 depicts that farmers with small farm size considered tree planting as useful as farmers with larger farm sizes.

Table 4. Relationship between farm size and perceptions about tree planting

Farm size (acres)	Farmer tree	Response about planting	Total
	No	Yes	
1-10	5	41	46
11-20	3	8	11
21-50	1	4	5
>50	0	2	2
Total	9	55	64

Relationship between Monthly Expenditure and Perceptions about Tree Planting

Table 5 revealed that monthly expenditure level has no effect on the positive or negative perception about tree planting.

Table 5. Relationship between monthly expenditure and perceptions about tree planting

Monthly expenditure	Farmer response	About tree planting	Total
	No	Yes	
<2000	1	4	5
2001-4000	4	5	9
4001-6000	2	15	17
6001-8000	0	10	10
>8000	1	22	23
Total	8	56	64

Relationship between Educational level and Perceptions about Tree Planting

The table 6 showed that the respondents with higher education preferred tree planting as compared to less educated. It was calculated that education was one of the determining factor having dark effect on positive or negative perception of farmers about tree planting.

Table 6. Relationship between educational level and perceptions about tree planting

Educational level	Farmer response	About planting	Total
	No	Yes	
0-4	4	6	21
5-10	3	30	26
1-14	1	18	15
>14	0	12	2
Total	8	56	64

Relationship between Number of Trees Owned and Perception About Tree Planting

The table 7 showed that farmers with greater number of farm trees favoured planting, where as farmers with less number perceived tree planting less useful. The reason for this observed difference in perception.

Table 7. Relationship between number of trees owned and perception about tree planting

Number of trees owned	Farmer tree	Response about planting	Total
	No	Yes	
<100	4	20	24
100-300	1	11	12
301-500	0	14	14
>500	0	14	14
Total	5	59	64

Perception about Useful of Trees

Table 8 depicted were that education, average number of trees owned and monthly expenditure are the three most important factors influencing the perception of trees. Rests of the factors apparently don't affect much. These relationships of various variables with farmer's perception about tree planting were studied.

Table 8. Comparison of data related to the two groups of respondents i.e. those who consider trees useful and those who consider trees not useful

Characteristics	Positive perception about trees	Negative perceptions about trees
Average farm size	11 acres	7 acres
Ave. education	9.6 years	7.34 years
Ave. monthly expenditure	Rs. 40600	Rs. 35000
Ave. household	9 persons	8 persons
Ave. no. of trees owned	431	266

CONCLUSION

It is clear from the data of the study that literacy rate, farm size socio-economic conditions of farmers have significant effect on the farmers perception for tree planting on his or her farmland.

It is recorded interim yield exposures/dissemination of extension material in local language to the farmers will improve tree perception about the benefit of the tree planting.

REFERENCES

Dove, M. R., 1992. Foresters belief about farmers: A priority for social science research in social forestry. *Agro forestry systems*. 17: 13-41.

FAO, 2000. Global Forest Resources Assessment 2000 and UNEP Global Biodiversity outlook 2001, Retrieved from (<http://www.safnet.org/aboutforestry/world.cfm>).

GOP, 2003. Economic survey of Pakistan, 2002-2003. Islamabad: Government of Pakistan (GOP).

GOP, 2004. Economic survey of Pakistan, 2003-2004. Islamabad: Government of Pakistan (GOP).

Mcketta, C. W., 1990. The wood shortage in Pakistan: hypothetical contradictions. *Pak. J. Forest.*, 40: 266-273.

Nouman, W., G. S. Khan, H. Farooq and N. Jamal, 2006. An investigation to find out the reasons for adoption of Agroforestry by farmers in district Faisalabad. *J. Animal. Pl. Sci.* 16(3-4):93-95.

Tanveer, H., G. S. Khan, S. A. Khan, N. Masood, M. Ashfaq and N. Sarwar, 2012. Farmers Agro forestry in Pakistan, Farmers Role-Trends and Attitudes. *Current Res J of Social Sci.* 4(1): 29-35.