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Orientation of the agroforestry growers in mid-hills of Himachal Pradesh

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Abstract

In the present investigation, a sample of 120 agroforestry growers from 12 randomly selected villages of two development blocks viz. Drang and Sadar was taken through disproportionate stratified sampling technique (controlled sampling). The results of the present study revealed that majority of the agroforestry growers had small sized families, agriculture as main occupation, small farm size, low family income and moderately motivated economically. It was also found that about 50 per cent had access to some source of farm information. In the present study 36.67 and 17.50 per cent of the growers did show sufficient favourable and highly favourable orientation towards the agroforestry respectively, whereas remaining (45.83 %) of the growers were somewhat oriented towards the agroforestry. Farm size, economic motivation, extension participation and source of farm information were found to be correlated positively and significantly with the grower's orientation.

Key words: Agroforestry growers, Himachal Pradesh, orientation.

Introduction

Agroforestry not only provides diverse farm economy, but stimulate the whole rural economy, leading to more stable farms and communities. It promotes food security, soil conservation, soil fertility and helps in moderating microclimate, living fences for crops and fruit trees, reclamation of degraded lands, and stabilization of watersheds and protection of biodiversity.

Fortunately, there is a wide scope to promote and popularize modern agroforestry systems in the mid-hills of Himachal Pradesh. The topographic characteristics of the Himachal Pradesh vary considerably calling for specific land use systems as per local situations. Therefore, this is very important to study the orientation of the growers towards the agroforestry as well as their socio-economic status in adopting the modern agroforestry. Thus, it may help to buid up effective planning by the extension agencies to enhance the adoption of the modern agroforestry by the concerned agroforestry growers. Accordingly the present investigation has been undertaken with the following objectives.

1. To study the socio-economic profile of the agroforestry growerss of the mid-hills of the Himachal Pradesh
2. To ascertain the level of orientations of the agroforestry growers.
3. To asses the relationship between some selected attributes and orientations of the agroforestry growers.

Material and Methods

The study was conducted in the Mandi district of Himachal Pradesh. Out of 10 blocks two blocks namely Drang and sadar and further six villages from each of these blocks were chosen randomly. Later on a sample of 120 agroforestry growers was taken from these villages through disproportionate stratified sampling technique (controlled sampling). The data were collected through structured interview schedule and was then analyzed by using the measuring tools like cumulative frequency cube root technique, max.-min. range, coefficient of correlation and test of significance.

Measurement of orientation of agroforestry growers

The orientation of the agroforestry farmers was assessed by developing a scale containing nine positive and eight negative statements. The response was taken on five point continuum i.e. strongly agree, agree, undecided, disagree and strongly disagree. The scores of 5, 4, 3, 2, and 1 were awarded for each positive statement and in their reverse order for each negative statement. The total score for all respondents were worked out and categorized in to three catogories by using cumulative frequency cube root technique namely somewhat oriented, sufficiently oriently and highly oriently with score range of45-60, 60-70 and 71-85 respectively. Some socio-personal characterstics of the farmers, i.e. age, education, caste, size of family, occupation, farm size, family income, economic motivation, extension participation and

source of farm information etc. were considered as independent variables for this study and were categorized from the available data on the basis of difference of maximum and minimum score for a particular attribute as followed wherever applicable:

Maximum score = (X)
Minimum score = (Y)
Difference = (X-Y)

$$\text{Difference between class category} = \frac{X-Y}{N}$$

Where, N = No. of required categories

Results and Discussion

Socio-economic profile of the agroforestry growers

The general profile of the respondents has been studied in relation to their various attributes to have an idea about their various socio-economic and other conditions (Table 1).

Age, Formal education and main Occupation

It is quite evident from table 1that more than half (54.17%) of the agroforestry growers belonged to old age group (60.34 – 80.00 years) which might be due to the natural and randomized inclusion in the sample of the study.The distribution of agroforestry growers with respect to their formal education showed that most of the respondent (88.34%) were literate with majority of them had matric to senior secondary education standards. It might be due to the reason that perhaps they were aware of the importance of formal education for one's personalities. Secondly the accessibility of the education facilities also might had been another reason behind their this level of literacy. The present finding is also supported by Annapurna *et.al* (1996).

Table 1. Distribution of agroforestry growers according to their different attributes

N = 120

Sr. No.	Attributes	Level/category	Score	Frequency	Percentage
1.	Age (years)	Young	21.00-40.67	36	30.00
		Middle	40.67-60.34	19	15.83
		Old	60.34-80.00	65	54.17
2.	Formal Education	Illiterate	0.00	14	11.66
		Upto primary	1.00-5.00	20	16.67
		Upto Middle	6.00-8.00	27	22.50
		Upto 10+2	9.00-12.00	47	39.17
		Above 10+2	13.00-18.00	12	10.00
3	Main occupation	Agriculture	--	79	65.83
		Service	--	31	25.83
		Business	--	10	8.34
4	Size of family	-	2 - 7	86	71.67
		-	7 -12	30	25.00
		-	12 - 17	4	3.33
5.	Family income (Rs.)	Low	40000-100000	64	53.33
		Medium	100000-160000	39	32.50
		High	160000-280000	17	14.17
6.	Farm size (hectares)	Small	0.24-1.23	77	64.17
		Medium	1.23-2.22	32	26.67
		Large	2.22-3.20	11	9.16
7	Economic motivation	Poor	19.00-22.67	15	12.50
		Average	22.67-26.34	72	60.00
		High	26.34-30.00	33	27.50
8	Extension participation	Nil	0.00	29	24.17
		Poor	1.63-10.93	53	44.17
		Average	10.93-20.23	23	19.16
		High	20.23-29.52	15	12.50
9	Source of farm information	Poor	14.00-18.67	54	45.00
		Medium	18.67-23.34	59	49.17
		High	23.34-28.00	7	5.83

The profile of the attributes of the agroforestry growers revealed that a majority of the agroforestry growers was primarily engaged in agriculture. This observation is in line with the macro economic scenario of the state of Himachal Pradesh, where agriculture supports more than two-thirds of the total workforce.

Size of family, Family income, Farm size and economic motivation

The research findings of this study revealed that a majority (71.67%) of the growers had 2-7 members in their families. Chauhan (1999) reported similar family trends in his study. More than half of the respondents (53.33%) were of low income group which could be explained in term of subsistence and primarily rainfed farming systems of the state, small land holdings and scarcity of other sources of income round the year. A majority (64.17%) of the agroforestry farmers were of small land holders, possessing 0.24 to1.23 hectare's of total land under their ownership. It might be due to the reason of unrelenting increase in human population coupled with lack of non-farm employment opportunities. This finding become a stylized fact of Indian agriculture and has been reported by numerous studies. The finding is in conformity with those of Chand (1997) and Thusoo (1999). A large percentage of respondents were moderately motivated economically, followed by those of highly motivated. Growers were perhaps sufficiently motivated due to the fact that they understand the importance of agroforestry in enhancing their farm income as it provides fodder, fuel and many other intangible benefits.

Extension participation and Sources of farm information

The research findings of this study indicated that about one-forth of the growers had no participation in extension, 44.17 percent growers had poor extension participation. This might be either due to their poor credibility of the various extension personnel or agencies or lack of time with the farmers to access and contact them. Such results were also supported by Annapurna *et.al* (1996). A large percentage of respondents were poorly/moderately exposed to the different sources of farm information. It may be perhaps due to lack of interest and time on the part of the agroforestry growers.

Table 2. orientation of the agroforestry growers towards agroforestry

N = 120

Sr. No.	Orientation level	Score range	No. of respondents	Percentage
1.	Somewhat oriented	45-60	55	45.83
2.	Sufficiently oriented	61-70	44	36.67
3.	Highly oriented	71-85	21	17.50

Orientation of the agroforestry growers

Results obtained regarding orientation of the farmers about the agroforestry have been presented in table 2. It can be noted that there were only 17.50 per cent of the farmers who were highly oriented towards agroforestry, whereas 45.83 and 36.67 per cent farmers were found to be somewhat oriented and sufficiently oriented, respectively towards the agroforestry. The findings are in conformity with those of Kumar *et.al.* (1999).

Relationship of attributes of growers with their orientation

The relationship between some selected attributes of the agroforestry growers with their level of orientation has been depicted through coefficient of correlation (Table 3). It is observed that attributes viz., farm size, economic motivation, extension participation and used source of farm information were positively and significantly correlated with their level of orientation of agroforestry affairs. Perhaps farmers with comparatively more land holdings wanted to earn more from their agriculture profession as they were also economically motivated and might be more oriented about about agroforestry systems. Further they might have got information and education from various local, cosmopolites or other source of farm information to orient them accordingly for the purpose.

Table 3. Relationship between some selected attributes and orientation of the agroforestry growers

N = 120

Sr. No.	Attributes	Co-efficient of correlation (r-value)	Calculated t-value
1.	Age	0.064	0.697
2.	Formal education	-0.068	-0.737
3.	Farm size	0.218*	2.426
4.	Family income	-0.107	-1.169
5.	Economic motivation	0.206*	2.286
6.	Extension participation	0.192*	2.126
7.	Exposure to mass media	-0.025	-0.272
8.	Source of farm information	0.180*	1.987
9.	Family size	-0.228*	-2.543

* = Significant at 5 per cent level

Conclusion

From the present investigation it is concluded that the agroforestry growers still need more orientation towards the adoption of agroforestry and further it is also observed that economic motivation, extension participation and source of farm information were found significantly correlated with orientation of the growers towards the agroforestry. Therefore these farmers may be motivated to opt some other income generating activities alongwith agroforestry to improve their economic conditions. Further they also need to be motivated to access the extension facilities and other source of information of improved agroforestry growing practices.

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