Farmer's Knowledge about Joint Forest Management

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ABSTRACT

Joint Forest Management (JFM) is directed towards facilitating the increase in productivity of hitherto degraded forests through active involvement of local communities in project formulation, implementation, harvesting, benefit sharing, marketing and monitoring (Pathan (1994). Uttarakhand is a newly created state with 63 per cent of its land covered by various kind of forest. The state adopted JFM policy passed by U.P. Government in 1997 to manage its rich forest resource with active participation of local farmers and other forest users. The present study was designed to ascertain the farmer's knowledge about activities and anticipated benefits of Joint Forest Management project. The investigation was carried out in two purposively selected villages of Haldwani and Tarai Central forest divisions where the project was running since last four years. A sample of 260 respondents was drawn from two selected JFM villages on the basis of population proportion by using simple random sampling technique. The findings indicate that knowledge of the respondents about activities and anticipated benefits of Joint Forest Management is quite low. The reasons of low level of knowledge were improper campaign for popularization of the Programme, low education of the respondents, their business and less interaction with VFC members.

Key words : *Joint Forest Management; Active participation*

*F*orests are the most important natural resources for the sustenance of human kind since time immemorial. They provide oxygen, fuel wood, fodder, fruits and many other direct benefits to human life. Forest also play an important role in regulating rainfall, conserving environment, checking soil erosion and controlling flood, drought and other natural calamities. Degradation and deforestation of forests is a great challenge ahead for policy makers. Forest cover in our country is decreasing day by day with illicit felling of trees, encroachment in the forest area by forest dwellers and improper grazing etc. The forest area of the country reduced up to 19.27 per cent in 2001, which was 22% at the time of independence. The threat to forest cover has never been greater than in recent times. To overcome these threats, Government of India issued the guidelines for implementation of JFM on June 1st, 1990 as policy decision. JFM is the sharing of product, responsibilities control and decision making authority over forest land, between forest departments and local user groups, based on formal agreement. The primary purpose of JFM is to give user a stake in forest benefits and role of planning and management for the sustainable improvement of forest conditions and productivity. It is basically management of forest by forest department with active participation of local population.

Uttarakhand is a newly created state and covered 63 per cent of its land is covered by the forest. The state adopted JFM policy passed by U.P. Government in 1997 to manage its rich forest resource with active participation of local farmers and other forest users. JFM projects, assisted by World Bank and implemented by forest department are running in several villages of the Uttaranchal since last four years.

Government forest officials with VFC (Village Forest Committee) members are solely responsible for planning and implementation of the projects. The village forest committees (VFCs) were formed by the forest officials having representation of all sections of the society. The major role of VFC members and forest officials is to make people aware of activities, process and benefits of JFM to facilitate their participation to a great strength. Keeping in view the significance of JFM for people of Uttaranchal the present study was designed to ascertain the farmer's knowledge about activities and anticipated benefits of Joint Forest Management project.

METHODOLOGY

The present investigation was carried out in newly created state of Uttaranchal. The Uttaranchal has 35 forest divisions, out of which two divisions namely Haldwani and *Tarai* Central were selected purposely for the study because the JFM project was started in these divisions in the first phase (since 1998).

The project was implemented in twelve villages of Haldwani Division and seventeen villages of *Tarai* Central Division. Two villages one from each division was selected purposely. Thus, a sample of 260 respondents (farmers) was selected from two villages on the basis of population proportion by using simple random sampling technique. Head of the selected families were considered as respondents for the study. The level of respondent's knowledge about JFM was measured by categorizing their responses in three categories viz. low, medium and high on the basis of mean and standard deviation as given below:

Knowledge about JFM activities	Knowledge about benefits of JFM
Low : (up to 4 activities)	Low : (up to 3 benefits)
Medium : (5 to 8 activities)	Medium : (4 to 6 benefits)
High1 : (> 8 activities)	High : (> 6 benefits)

RESULTS AND DISCUSSION

Farmers' knowledge about JFM activities: It is evident from the Table 1 that maximum numbers of respondents (79.61%) were aware about plantation of new trees under JFM followed by fodder grass plantation (45.76%) and opportunities of employment (38.84%). A sizable number of respondents (16.53%) were aware about shrub cutting in JFM area. Fencing in JFM area and raising nursery for plantation were other major activities about which respondents were aware (12.69 and 12.30%, respectively). Only 9.23% respondents were aware about perennial weed control in JFM area. Other activities about which respondents were aware are: construction of boundary wall in JFM area (8.07%), security of JFM forest and clearance of fire line in JFM area (7.69%, each).

Table 1. Farmers' knowledge about JFM activities

S. No.	Activities	No. of Respondent	% of Respondent (N = 260)
1.	Plantation	207	79.61
2.	Digging of protection trench	20	07.69
3.	Shrub cutting	43	16.53
4.	Clearance of fire line in JFM area	20	07.69
5.	Fencing	33	12.69
6.	Nursery raising	32	12.30
7.	Construction of water storage tank	02	0.76
8.	Control of perennial weeds	24	9.23
9.	Plantation for grass and fodder	119	45.76
10.	Soil conservation work	03	1.15
11.	Creating employment for villagers	101	38.84
12.	Construction of Boundary wall in JFM area	21	8.07
13.	Formation of VFC by consensus	07	2.69
14.	Training of VFC	04	1.53
15.	Security of JFM forest	20	7.69
16.	Land for fodder	03	1.15

The level of farmers' knowledge about JFM activities

was calculated and found that 58.46% per cent respondents had low level of knowledge about JFM activities (Table 2). Respondents who had medium level of knowledge about activities of JFM were 14.23%. Only 2.69% per cent respondents had high level of knowledge about JFM activities while 24.62% respondents were not have any knowledge about any JFM activity.

Table 2. Distribution of respondents according to level of knowledge about JFM activities

S. No.	Category	No. of respondents	% of respondents (N = 260)
1.	Low (knowledge up to 4 activities)	152	58.46
2.	Medium (knowledge of 5 to 8 activities)	37	14.23
3.	High (knowledge of more than 8 activities)	7	2.69
4.	No knowledge	64	24.62

Table 3. Farmers' knowledge about benefits of JFM

S. No.	Benefits	No. of respondents	% of respondents (N = 260)
1.	Fuel wood	134	51.53
2.	Fodder	115	44.23
3.	Timber	60	23.07
4.	Fruits	36	13.84
5.	Employment	105	40.38
6.	To increase village forest area	24	9.23
7.	Climate control	24	9.23
8.	Environment conservation	43	16.53
9.	Increase natural beauty	29	11.15
10.	Soil conservation	13	5.00
11.	Water conservation	07	2.69
12.	Protection from flood	01	0.38
13.	Protection from drought	03	1.15
14.	Compost	24	9.23
15.	Increasing villager's income	52	20.00
16.	Increasing living standard	24	9.23

Farmers' knowledge about anticipated benefits of JFM: Farmers' knowledge about anticipated benefits of JFM were sought out and given in Table 3. The data reveals that 51.53% of the respondents considered JFM is beneficial for better supply of fuel wood followed by fodder grass (44.23%), employment opportunities for villagers (40.38%), availability of timber (23.07%) and increasing income of villagers (20.00%). Some other benefits about which respondents were aware were: environment conservation (16.53%), availability of fruits (13.84%), increasing aesthetic value (11.15%) and climate control, leaves for making compost, increasing village forest area, increasing living standard (9.23%, each). Very few numbers of respondents were also aware of benefits

like soil conservation (5.0%), water conservation (2.69%) and protection from drought and flood (1.15 and 0.38%, respectively).

Farmers' level of knowledge about JFM benefits was categorized as low, medium and high (Table 4). It is clear from the findings that 48.08% of the respondents were not aware of the benefits of JFM followed by those who had low and medium level of awareness (20.77% and 18.46%, respectively). Only 12.69 per cent of the respondents had high level of knowledge about benefits from JFM. It is clear from the findings that respondents had low level of knowledge of JFM activities and benefits.

The findings regarding farmers' knowledge about the benefits of JFM, supporting the findings of Natarajan *et. al.* (1994), Shankar (1995) and Ray (2000). Though, the people who had more knowledge about the benefits viz., employment through JFM, timber, fuel wood, thatch, small timber and leaves for compost, honey, check soil erosion and increase medicinal use of trees were low in number.

Table 4. Distribution of respondents according to level of knowledge about benefits from JFM

S. No.	Category	No. of respondents	% of respondents (N = 260)
1.	Low (knowledge up to 3 benefits)	54	20.77
2.	Medium (knowledge of 4 to 6 benefits)	48	18.46
3.	High (knowledge of more than 6 benefits)	33	12.69
4.	No knowledge	125	48.08

The reasons behind low level of knowledge were elicited by focused group discussion with key informants. The results which emerged from discussion are described below :

1. No proper campaign was organised in JFM villages to make people aware about JFM and its benefits.

2. People in the selected villages were mostly landless labourers and engaged in work on daily wages and did not have time for programmes like JFM.

3. The VFC members did not organise general meetings regularly in the village, to popularize the programme.

4. Elite class of the village were office bearers for the project who were not interested in making people aware of the project because they had a fear that if they would become aware of their rights it would be harmful for their personal gains.

5. Low level of education was another factor affecting awareness negatively.

CONCLUSION

The study indicated that knowledge of the respondents about activities and anticipated benefits of Joint Forest Management was quite low. Respondents had knowledge only about those activities, which were held at their villages during the project. Respondents were aware of those benefits, which they expected from the project. People had low level of knowledge about various aspects of joint forest management because; no proper campaign was organized by VFC or forest officials for them. Low education of the respondents, their business and less interaction with VFC members were other reasons leading to low level of knowledge about Joint Forest Management.

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