

PERCEPTION CONCEPTS OF BENEFICIARIES FOR STRENGTHENING THE LIVELIHOOD OPTIONS WHILE DEVELOPING RESILIENCE TO CLIMATE CHANGE- A CASE STUDY OF DFID PROJECT IN HIMACHAL PRADESH

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ABSTRACT

To study and analyze the perception of beneficiary households for strengthening the livelihood options while developing resilience to climate change a study was carried out in two Panchayats (Naineti & Kathlibharan) of rural areas of HP. Forest Department of HP acted as a facilitator and coordinated with other line departments through VFDC and GDST to execute various components of the project in the field. “with” and “without” approach was used for analyzing the impact of project intervention. Multistage purposive cum random sampling techniques were used for selecting villages and households. Two panchayats adjoining these selected panchayats having similar agro-climatic conditions were also selected to draw a sample of beneficiaries for each village to act as the control. Data analysis worked out in percentage suggests that higher literacy rate, family size and land holding among the beneficiary households has played a significant role in their perception of the Strengthening the livelihood options for sustainable economic growth, productive employment and protection of Environment which they found as quite effective in solving their conflicts, increase in farm income, reduction in dependency on forests by growing plantations of fuel, fodder and timber on their own land. Participation in Participatory Rural Appraisal (PRA) exercise though low, reflects that people take longer time to come out of inertia and understand the projects benefits at the planning stage. Beneficiary households found that rural development activities with Incentives have helped them to adopt PFM approach. Improvement in infra structures has been quite effective to take their produce directly to the market yard to get some better prices. Incentives provided under the project have certainly triggered a thought-provoking process towards their participation which provided a support to sustain their lively hood and generate income to improve socio-economic profile. Sensitivity of beneficiary households towards forest offences has further

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helped in restocking the forests and use of forests and other natural resources on sustainable basis. Use of LPG/ Gobar gas in place of fuel wood is a step towards carbon sequestration from the environment on the one hand while reducing the burden on the forest for the extraction of fuel wood –a step to mitigate the effects of climate change. Meeting of fodder requirements occasionally from own land and stall feeding has certainly reduced the biotic pressure on the forest land as a result trampling of young shoots of plant species due to open grazing could be reasonably avoided.

INTRODUCTION

The success of any project activities can be adjudged with the perception of its beneficiaries about their first-hand information about the area project, participation, extent of their involvement. Perception undoubtedly is a major indicator of long chain of changes occurring in the thought provoking processes and change in the mind set of people before the project activities are adopted by the beneficiary. Participation itself takes the shape of a important tool as a indicator for the socio-economic viability of the project, economic growth, its social acceptance and replication in future. It does not always weigh with the quantum of package you have but it usually matters, how you are going to address the community issues with various components which will stretch out a process for poverty alleviation, make them self-reliant and self-sufficient with adequate livelihood support mechanism. The Department for international development (DFID) of UK assisted Himachal Forest Sectoral Reform Project, popularly known as UK assisted DFID Project for the period 2003-2006 on a pilot basis in selected panchayats in HP. Based on the similar criteria two such Panchayats namely Kathlibharan and Naineti were also identified in Sirmour district of Himachal Pradesh. The project mainly with the objectives of sustainable Forest Management and poverty alleviation with people participation provided funding of 85 per cent as grant in aid and rest 15 per cent was realized as matching share from the beneficiaries either in cash or in the form of labour. Forest Department acted as a facilitator and prepared a micro-plan and acted as a coordinating agency with other line departments. A Village Forest Development Committee (VFDC) registered under Cooperative Societies Act with its well-defined bye laws for field execution of project components and deliberates on the related issues. And for the skill development, technical input and liasoning among the various wards of the panchayat and to facilitate VFDS (A supporting team of Forest Agriculture, Horticulture, Animal Husbandry , Irrigation & Public Health in execution of various components of the project a Group Development Support Team (GDST) mainly of Government functionaries were put in place.

Works like enrichment of moisture regime, improvement in hydrological processes with erection of check dam , Farm ponds, water storage tanks construction , stall feeding, vermi compost pit, Gobar gas plant, protection of forest grooves , raising of fuel, fodder and timber species plantations on the Government land ,enriching the agroforestry and intercropping of horticulture plants on the private land along with augmenting the grass and fodder production on the same status and barren land were carried out in concurrence of VFDS and GDST. Forest department also facilitated in capacity building, training and exposure visits of the beneficiary households during the project conceiving stage.

METHODOLOGY

Multistage purposive cum random sampling techniques have been used for selecting villages and households. A sample of 50 households each from Neinetti and Kathlibharan panchayat was randomly drawn. Thus, total sample consisted of 100 beneficiary households in the project panchayats. For responses regarding perception of respondents about the working of VFDCs, an average response for a given characteristic/ phenomenon scoring was done by assigning weight for zero to four, in ascending order from the least favorable to the most favorable responses. The average score thus, was calculated as follows:

$$\text{Average score} = \frac{\sum n_i w_i}{N_i}$$

Where

n_i = number of response for i^{th} characteristic/ phenomenon for a given rank.

w_i = weight assignment to the given rank.

N_i = sum of responses for different ranks for the i^{th} characteristic/phenomenon

With a view to assess the perception of respondents about the PFM concept (Participatory Forest Management), benefits of PFM project, the role of forest officials in PFM programme and to measure the degree of utilization of information sources, the respondents were asked to give their responses on 5 point Likert scale. To find out the total scores for a given characteristic/statement scoring was done by assigning weights from zero to four, in ascending order from the least favorable to most favorable response. Thereafter, total scores were computed for each statement by summing up the multiple for a particular weights assigned to response and the frequency of responses for each weight. On the basis of total scores, ranks were given to each character/statement in order to perceive of the most important characters influencing majority of respondents.

In order to adjudge perception of the respondents about the role played by NGOs/Panchayats/Mahila Mandal in the participatory management processes, scores were

assigned as 1 for 'yes' and 0 for 'no' response for each statement as recorded in the schedule frequencies of responses under each statement were counted and percentages worked out for each zone and for pooled sample.

RESULTS AND DISCUSSION

Analysis of data in respect with demographic feature and land holding size, literacy rate, response analyses of Participatory approach in solving conflict, decision making, irrigation provision, maintaining live-stock, saving of Forests, connectivity of villages, horticulture development, roll of VFDS in Participatory Forest Management(PFM), roll played by Forest Officers, roll of incentives in People Participation, roll of NGO's, Panchayat and Mahila Mandal, suggestions for developmental activities and incremental changes occurring at planning, implementation and maintenance stages of the project in the identified Panchayat, were carried out. It is observed that Participation approach at planning stage (Table 1), has been successful to an extent of 100 per cent in granting freedom of expression of view points by the beneficiary households in the General house meetings of VFDS, which has paved the path of the project activities be easily debated and critically examined before it was percolated down to the field. This is usually expected by the implementing agencies to meet the very objectives of the projects. Participation of the beneficiary households in formulation, approval of micro-plan in the General house and suggestions given by them for raising the tree species which could provide them sufficient fuel wood, fodder and timber for the house construction, preparation of agricultural implements and provide them other minor forest produce which otherwise be of the use to meet their domestic requirements and boost their income by selling these in the open market, accounts for 85 per cent for their perception response. It has been realized that in recent years there has been a growing movement for democratization of forest management in India for widening the sphere of popular participation by making forest managers more responsive to the needs of local communities. Grass root organizations active in forest areas have repeatedly urged a complete overhaul of forest management,(Ramachandra Guha,1998).

It all transpires that participation approach had initiated a thought provoking process among the beneficiary households in its initial stages that is planning stage for addressing the issue of poverty alleviation and simultaneously raising such plantations on their own land and as well on the Government land which will help them in reduction of burden of fuel, fodder and timber and grazing on the existing forest growing stock resulting into stall feeding and utilizing the time saved from these forest related activities in other developmental and social activities of the Panchayat. It has been felt that it is difficult for the poor to individually break away from

the vicious circle of dependence and poverty. It is only through collective effort and organization that they can reduce dependence and initiate a course of participatory, self-reliant development, (Wignaraj et al. 1990). 5 per cent at overall level perception response about the knowledge of institution like VFDC at planning stage and 60 per cent perception response about the knowledge of objectives of the project of the beneficiary households at over all level shows their eagerness, willingness and acceptability to adopt participation mode for their welfare. Participation in Participatory Rural Appraisal (PRA) exercise though low (45%) reflects that people take longer time to come out of inertia and understand the projects benefits but it has been observed further they participated in the formulation and approval of micro-plan document of the VFDS as their related response remained at 85 per cent at planning stage. With this it is concluded that beneficiary households are usually prepared to adopt the participatory approach provided they are time and again briefed with the objectives of the projects and its occurring benefits to them as they take time to come out of inertia and get away with the traditional practices being adopted since time immemorial though may be less income generating and less productive and non-viable.

The analysis reveals that people wants to be part of the developmental activities only after examining the various befitting aspects of the project as their response percentage gradually shows a upside trend at planning stage from participating in PRA exercise (45%) to micro-plan formulation & its approval (85%). The project implementing agency should also keep immense patience, make all efforts to brief the beneficiary households about the various aspects of the project and communicate freely to abridge the gap between have or haven't and the coordinate project activities effectively by maintaining the proper liaison with line departments at planning stage of the project. Participation at the planning stage makes the foundation for the success or failure of any project. But in the instant case the response percentage has been found adequate at planning stage. FD as a facilitator created a common plat-form through Participatory Forest Management by adopting an integrated approach with other line departments to address the public issues through financial support from DFID accompanying with the matching share of beneficiary households. Further, it has also been felt that Investment in human, physical, financial and social capacity can help to develop livelihoods that restore natural capital (Danks, 2000). Awareness, two way communication and transparency and education are the significant tools to make people understand the objectives of the project and its benefits. All these aspects help the people of the project area to change their mind set and help them to come out of inertia and adopt improved technology in agriculture, horticulture, animal husbandry, irrigation and

forestry practices and decision making for managing their natural resources on sustainable basis. Once the beneficiaries starts realizing that their suggestion are also being taken care of and being given due weight age, it help them to acquire better perception skill by virtue of which without any bias they freely express their perception at various stages of the project. Further, analysis of the data reveals that unbiased perception not only help the beneficiary households in their socio-economic uplfitment but also become a guideline for the facilitators and project implementing agencies to make changes in their project models to be most befitting to the people and chalk out their strategy for PFM while ensuring their participation at all level and its replication.

Table-1: Respondents Perception about Participation at Programme planning stage.

(Multiple responses in Percentage)

Sr. No	Statements	Panchayat		
		Kathlibhara n	Naineti	Overall
1	Participation in PRA exercise	50.00	40.00	45.00
2	Freedom to express views in General House meetings	100.00	100.00	100.00
3	Level of consideration of viewpoints in the General House	80.00	60.00	70.00
4	Knowledge of VFDC at planning stage	80.00	70.00	75.00
5	Awareness of the objectives of the project at planning stage	60.00	60.00	60.00
7	Involvement in the formulation and approval of micro plan	90.00	80.00	85.00
8	Suggestions given about preferred tree species at this stage	90.00	80.00	85.00
Number of Respondents		50	50	100

(Source: Field Survey)

Approved Micro-plan activities were executed in the field by FD and line departments with the participation of the beneficiary households. At this stage which is supposed to be very crucial and certainly reflects the participation of beneficiaries in the execution and implementation of various components of the project, it will be of immense academic interest if data analyzed is discussed farm category wise to know exactly who are participating and what is their level of participation. Therefore, perception response of respondents was obtained at the implementation stage by analysis the data of incremental changes that occurred due to improvement in irrigation facilities, raising of forest and horticulture plantation, stall feeding, rearing of improved and cross-bred live stock, quality of houses and cattle sheds and employment opportunities. A perusal of the Table-2 reveals that beneficiary households were also found to be benefited with tank irrigation by growing vegetables and other cash crops which helped them to inculcate a

habit to participate in the project components as mentioned in the approved micro-plan and expressed their goodwill gesture with their contribution in the shape of labour. The beneficiary households got enlightened through workshop, village meetings and exposure visits and acquired knowledge in the field of raising vermin compost pits and improved technology. Owing to better irrigation facilities, the beneficiary households got better returns by growing vegetables which improved their economic level thereby, enabling them to go in for the purchase of cooking gas with the ultimate reduction of fuel wood consumption and extraction from the forest area. The perception response of the beneficiary households of Neineti Panchayat in regards with Change in cropping pattern from the large category household was found to be 100 per cent, followed by semi-medium (81 %), medium (80 %), small (72%) and marginal category household (57%), whereas it remained at 65 per cent with large farms followed by semi- medium (60%), small (45%) and marginal (40%) among the beneficiary households of Kathlibharan Panchayat. The perception response had been highest by large farms in regard with change of cropping pattern by growing more cash crops and followed by other farms category. With the people participation water bodies like village farm ponds, Water tanks were constructed to store water and along the perennial water sources, water harvesting structures were raised to regular supply of water for irrigation of agriculture land and drinking purpose under DFID project. The distribution of water perception response of beneficiary house hols has been found 65 per cent among the large farms in Naineti Panchayat and followed by others in descending order whereas it remained 64 per cent with the large farms of Kathlibharan Panchayat, small (42%) and followed by other farms category in descending order. Project in the approved micro-plan had the budgetary provisions for the various developmental activities with 15 per cent beneficiary contribution which may be realised in cash or in the shape of labour/ shramdan. It was analysed that mainly the contribution came up in the form of labour and perception response of Naineti Panchayat beneficiaries of large category farms remained the highest (88%) followed by medium(62%), semi-medium (60%), small(40%) and marginal(35%),whereas it remained highest among large farm category (86%) followed by other farms groups in descending order. Perception response of the beneficiary households of the participation in construction of road through their own labour has been found highest (71%) in the large category of Naineti Panchayat followed by other farms in descending order whereas highest response has been found (69%) among the marginal farm category, small (56%), semi- medium (45%) and large category (23%) of Kathlibharan Panchayat. Perception responses of ensuring survival rates of the horticulture plants mainly peach, mango, pomegranate reflects the participation level of beneficiary households in the direction of adopting multiple cropping for augmenting the family

income for better living standard and meeting with the challenges of employment in the rural area for the livelihood support. In both of these Panchayats the highest perception response was found as 45 per cent. It can be concluded that beneficiaries in both pilot project area were keenly participated in the PFM programmes and making use of various incentives received under the project.

The project with its objectives of poverty alleviation and sustainable development of forest while addressing the livelihood issues with people participation could be of any significance if it was able to reduce the burden on the forest for extraction of fuel wood, fodder and timber for house construction and preparation of agriculture implements. To analyze this aspect multiple responses of perception of beneficiary households were analyzed and it was found that in preserving the existing forests highest response of 52 per cent (large farms) of Naineti Panchayat was received followed by others whereas it remained 64 per cent with larger farm category of Kathlibharan Panchayat followed by others in descending order. Similarly the beneficiaries of both the Panchayats under study had made their perception responses in regard with Reduction on dependency on forest for fodder & fuel, Fuel wood substituted by LPG/ Gobar gas, Minimizing the use of timber with construction of concrete houses/sheds, Reduction in soil erosion. Perception response in regard with reduction on the dependency of forests in respect with beneficiaries of Naineti Panchayat remained 54 per cent among medium farm category followed by large (48%), semi- medium (42%), small (32%) and marginal by 20 per cent whereas it remained 53 per cent with the large farms in Kathlibharan Panchayat and followed by others in descending order. The burden of fuel wood extraction from the forests and switching on to alternative source of energy for cooking and other households activities like use of LPG / gobar gas, perception response was found to be highest (78%) with large category farms, followed by other beneficiaries in descending order in Naineti Panchayat. Similar trend has been observed among the beneficiaries of Kathlibharan Panchayat where highest response (53%) has been observed among the large farm category. Timber from the forests were to be used for the construction of houses and cattle sheds but with awareness and increase in education level and adopting to participatory approach methods through PFM the beneficiaries started construction of RCC houses and cattle sheds which required substantially less timber in the initial stage and very less in quantity for maintaining them. Thus a drastic fall in timber extraction from the forests for domestic use would lead to proper canopy –a step of mitigating the climate change effects. Perception response of the large category farms (67%) among the beneficiaries of Naineti Panchayat have been observed followed by others in descending order. In Kathlibharan

Panchayat similar trend has been found in all other farms in descending order while large category farms have reported highest response (69%). All these perception definitely narrates that people of the area were participating in developmental activities to join the main stream of development to improve their economy, by getting maximum output from their natural resources on sustainable basis and participating to minimise soil related losses by adopting soil erosion measure and were sensitive enough to give a halt to degradation processes while responding to climate change adaptability.

Table-2: Respondents Perception about Participation at Programme Implementation stage.

(Multiple responses in Percentage)

Particulars	Panchayat	Marginal	Small	Semi-medium	Medium	Large
1. Change in cropping pattern	Naineti	57	72	81	80	100
	Kathlibharan	40	45	60	NA	65
2. Types of crops area increased after provision of irrigation facilities i. Vegetables, oil seeds	Naineti	25	20	45	45	57
	Kathlibharan	40	45	60	NA	65
3. Satisfaction with water distribution	Naineti	28	47	57	61	64
	Kathlibharan	35	42	40	NA*	60
4. Free labour(shramdan) contribution in the execution of works	Naineti	35	40	60	62	88
	Kathlibharan	45	45	68	N.A*	86
5. Assistance given for the Purchase of milch animals	Naineti	15	31	33	45	54
	Kathlibharan	11	19	48	NA*	59
6. Participation in construction of road through their own labour	Naineti	23	40	45	48	71
	Kathlibharan	69	56	45	N.A*	23
7. Survival rate of the fruit plants	Naineti	23	24	24	36	45
	Kathlibharan	22	14	34	N.A*	45
8. Impact of project activities on						
i. Preserving forest	Naineti	43	48	44	49	52
	Kathlibharan	24	32	38	N.A.	64
ii. Reduction on dependency on forest for fodder & fuel	Naineti	20	32	42	54	48
	Kathlibharan	22	26	40	NA	53
iii. Fuel wood substituted by LPG/ Gobar gas	Naineti	20	40	56	66	78
	Kathlibharan	29	26	36	NA	69
iv. Minimizing the use of timber with construction of concrete houses/sheds	Naineti	5	16	38	57	67
	Kathlibharan	18	19	37	NA	69

*Note: There were no respondent in this category. (Source: Field Survey)

The activities carried out in the project and assets created were required to be maintained by the beneficiary households and accordingly, perception response of their participation level at maintenance stage has been analyzed in Table 3. From this table it is observed that involvement

of the beneficiary households in the protection of forests against grazing and illicit felling at overall level was found at 80 per cent. Besides, the people had responded positively towards extinguishing of forest fire (85%), co-operation in reporting poaching and theft of forest products (90%), complying with the set forest management rules (80%), preventing the free riding practices in the protected area (80%), raising the issues of transparency in respect of VFDCs accounts in the General House (85%), willingness to pay some amount for the forest products generated through project interventions (80%), participation in suggesting improvement in benefit sharing mechanism (75%), creation of awareness about social fencing (80%) and towards tending and cultural operations (70%), as well.

From the above data it can easily be concluded that the beneficiary households were quite aware of various related issues at maintenance stage, which motivated them to protect the assets created under the project and develop a feeling of belongingness. This resulted into preservation of the forests and their exploitation on the sustainable management and protection of forests against fire, theft while maintaining transparency (85%) in the project activities at all levels. Participation in suggesting the improvement in benefit sharing mechanism the perception response of beneficiary household at over all level has been observed at 75 per cent, where as response percentage for the effective closure of plantation raised with people participation on the Government / own land with vegetative or bush growth instead of barbed wire remained at 80 per cent at over all level. Once the plantations were established these were to be properly taken care by adopting adequate silvicultural practices for better stocking and protection against fire, therefore the perception response of the beneficiary households at over all level was found to be at 70 per cent. Perception response as above itself expresses the participation of beneficiary house hold at maintenance level which is the impact of the participatory management approach adopted for involvement of the people to meet the desired objectives of the project.

Table-3: Respondents Perception about Participation at Programme Maintenance stage.

(Multiple responses in Percentage)

Sr. No.	Statements	Panchayats		
		Kathlibhara n	Naineti	Overall
1	Participation in the protection of forests against grazing, illicit felling etc	80.00	80.00	80.00
2	Participation in extinguishing of forest fire	90.00	80.00	85.00
3	Participation in reporting poaching and theft of forest products	90.00	90.00	90.00

4	Participation in complying with the set forest management rules	80.00	80.00	80.00
5	Participation in maintaining transparency of VFDCs accounts in the General House	80.00	90.00	85.00
6	Participation in willing to pay some amount for the forest products generated through project interventions	80.00	80.00	80.00
7	Participate in suggesting the improvement in benefit sharing mechanism	70.00	80.00	75.00
8	Participate in creating awareness about social fencing	80.00	80.00	80.00
9	Participation in tending and cultural operations	70.00	70.00	70.00

(Source: Field Survey)

PERCEPTION RESPONSE OF BENEFICIARY HOUSEHOLDS FOR PROMOTING PEOPLE'S PARTICIPATION

It has been observed by data analysis that people's voluntary participation is required to be ensured on a continual basis for the success of PFM. Ensuring participation of all categories of farms thus, requires a delicate balancing of socio-economic factors in the project area. It remained a very strong twist by the majority of the respondents which depicts that not only the starting of income generating activities but also their continuity is important to sustain people's participation and awareness among the people. Training/tours and other human resource development activities have also found a strong favour with the beneficiaries' perception for the success of PFM. Education and financial support generally motivated people to participate in rural development activities. The other factors found to be influencing people's participation in rural development included faith and confidence in people's abilities, level of education and membership in the Village Development Associations or groups (Chandekar and Thomas, 1990). Sizeable number of respondents also felt that provision of marketing facilities will also favorably influence people's participation. A close look at Table- 4 will be suggesting that in Kathlibharan VFDS, 100 per cent responses were recorded for monetary incentive in the form of wages and income generation activities. It was closely followed by the rural developmental activities (91.66%), environmental conservation awareness (66.67%) guarantee of better returns (58.33%), continuity of the activities (53.33%) and training and tours and other HRD activities (41.66%). In VFDS Naineti, 100 per cent response was witnessed against the incentive in the form of wages, income generation activities and rural development activities. It was followed by environmental conservation awareness (80%) continuity of the activities (70%) guarantee of better returns (60%), including training and tours and other HRD activities. In the overall level

scenario 100 % participation response was with monetary incentive in the form of wages and income generation activities. This was followed by rural development activities (95.83%), environmental conservation awareness (73.33%), continuity of the activities (61.66%), guarantee of better returns (59.16%) and training and tours including other HRD activities (50.83%) and marketing facilities of output (46.66%). Undoubtedly participation response with regard to monetary incentive topped the list that shows that people are willing to improve their life style and anxious enough to come out of their poverty and adopt PFM mode. They endeavored to tackle the environmental problems and maintained continuity of activities. Such responses suggest and demand a faith in the frontline staff of the project which act as a bridge for trust building and pave a smooth the path of mutual understanding leading towards sustainable development and poverty alleviation, thus to meet the very objectives of the project through PFM approach. Further, it has been realized that continuity of flow of benefits which generate sustained enthusiasm and ensure viability of the programme on the long-term basis may preferably be introduced in the project components for the active participation of the beneficiaries (Khanna, 1994).

Table-4: Perception response of beneficiary households for Promoting People's Participation

(Multiple responses in Percentage)

VFDS	Monetary incentive in the form of wages	Income generation activities	Guarantee of better returns	Rural development activities	Continuity of the activities	Training/ tours and other HRD activities	Marketing facilities of output	Environment conservation awareness
Kathlibh aran	100.00	100.00	58.33	91.66	53.33	41.66	33.33	66.67
Naineti	100.00	100.00	60.00	100.00	70.00	60.00	60.00	80.00
Overall	100.00	100.00	59.16	95.83	61.66	50.83	46.66	73.33

CONCLUSIONS AND POLICY IMPLICATION

Perception responses of the beneficiary households about participation in the various components of DFID project, tangible benefits occurring to its user groups and intangible benefits received for the preservation, protection and use of natural resources on the sustainable basis reflect the scenario that people have been readily agreed to adopt PFM approach provided a bond of mutual trust is established between them and facilitating agency. Though the participation level among the marginal and small farm category has been found low at the

planning stage and gradually improving from implementation to maintenance stages, even then it is important to mention here with that their participation categorically express that they are anxious enough to join the main stream of development through PFM by their concern in respect with agriculture production, employment, and preparing to mitigate the effects of climate change. Therefore, it can be concluded that:-

- ❖ Participation in Participatory Rural Appraisal (PRA) exercise though low, reflects that people take longer time to come out of inertia and understand the projects benefits at the planning stage.
- ❖ Awareness, two way communication and transparency and education are the significant tools to make people understand the objectives of the project and its benefits. All these aspects help the people of the project area to change their mind set, therefore induce a better perception skill among the beneficiary households.
- ❖ Beneficiary households found that rural development activities with Incentives have helped them to adopt PFM approach.
- ❖ Improvement in infra structures like road communication has been quite effective to take their produce directly to the market yard to get some better prices.
- ❖ Incentives provided under the project have certainly triggered a thought provoking process towards their participation which provided a support to sustain their lively hood and generate income to improve socio-economic profile.
- ❖ Sensitivity of beneficiary households towards grazing, illicit felling, poaching and forest fire and raising of fuel wood, fodder ,timber species on Government and own land has further helped in restocking the forests and use of forests and other natural resources on sustainable basis . Further use of LPG/ Gobar gas in place of fuel wood is a step towards carbon sequestration from the environment on the one hand while reducing the Burdon on the forest for the extraction of fuel wood –a step to mitigate the effects of climate change.
- ❖ Meeting of fodder requirements occasionally from own land and introduction of improved livestock with stall feeding has certainly reduced the biotic pressure on the forest land as a result trampling of young shoots of plant species due to open grazing could be reasonably be avoided.

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