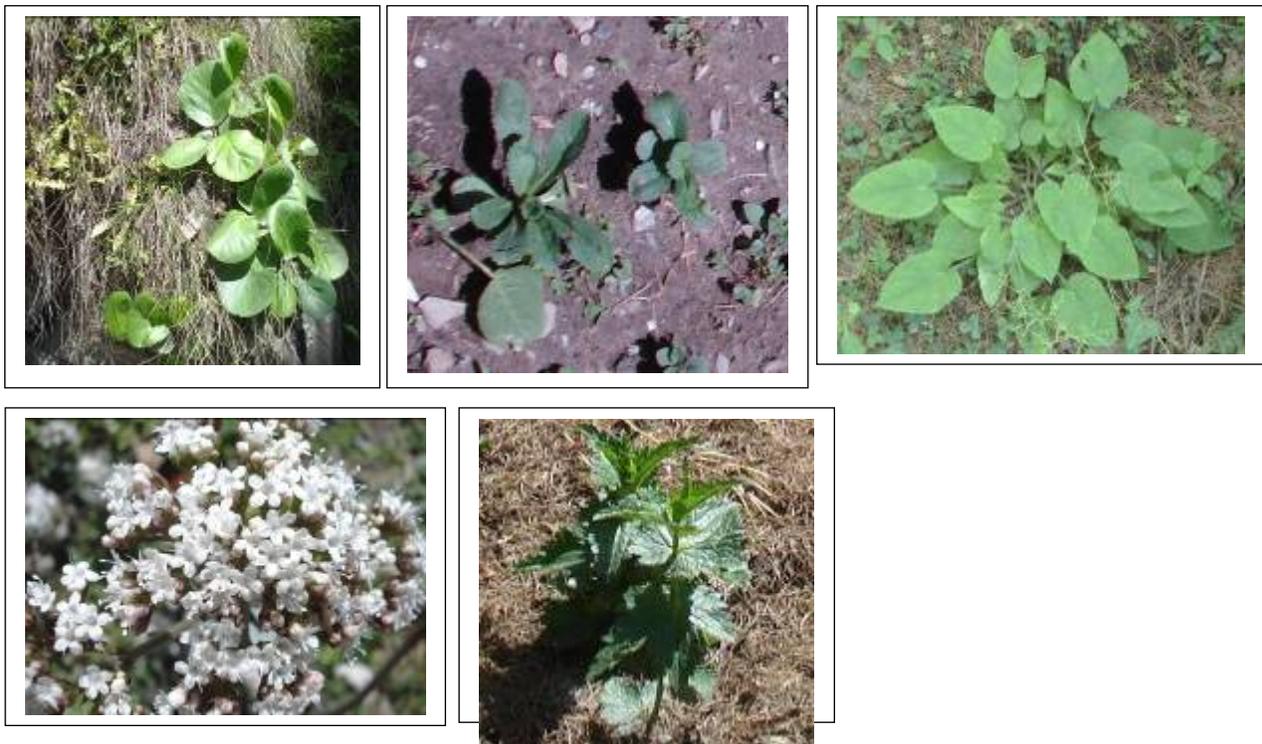




## Combined Report

### Sustainable Utilisation based Conservation of NTFPs through Community Institutions in Chamba District, Himachal Pradesh, India



Submitted by-

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## About the Project Area

The Project area lies in Churah forest division of Chamba district, which is one of the most backward districts of Himachal Pradesh, India. The whole region is quiet inaccessible and surrounded by high Himalayan mountain ranges like Pirpanjal and Dhauladhar range. More than 70% of the total geographical area is categorized as forest land comprising of tree cover, grassland, alpine meadows, blanks and snow covered areas. The area has some of the most picturesque and dense deodar (*Cedrus spp.*) and blue pine forests spread over large geographical area.



*Fig 1 & 2- View of Pirpanjal and Dhauladhar ranges which separate Churah division from Jammu & Kashmir state and Lahaul division respectively*

People of this region are mostly dependent on traditional agriculture, livestock rearing and forests to earn their livelihood. Some of the people have moved towards cash economy and have adopted apple cultivation, off season vegetable cultivation and floriculture, a trend that is catching on. Till about five years ago, NTFPs collection from wild used to be a major cash earning activity. Over a period of time, due to indiscriminate and unsustainable harvesting, the resource base got depleted and many NTFPs reached a stage of near-extinction. All the areas above 2000



*Figure-3: Five villages surrounded by blue pine forests*

meters are the habitat for high altitude NTFPs like *Valeriana jatamnasi*, *Aconitum hetrophyllum*, *Picrorhiza kurrooa*, *Podophyllum hexandrum*, *Jurinea macrophyllum*, *Rheum emodi*, *Berginia spp.*, *Dioscorea bulbifera* etc.

In the current project, we initiated work in five villages i.e Pugthla, Bhaorga, Chulhan, Dabbu and Banyot of Guwadi panchyat (lowest unit of local self governance). All these villages are remotely located and to reach them requires two and a half hours of steep walk from the nearest road head. All these five villages are surrounded by dense blue pine forests and at lower altitudinal ranges NTFPs like *Valeriana jatamasi* and *Dioscorea deltiodea* are found. At higher altitudes species like *Aconitum hetrophyllum*, *Jurenea macrophylla*, *Picrorhiza Kurrooa* etc. are found.

**Table- 1- Demographic profile of the villages**

| S. No        | Village Name   | No. of Hhs <sup>1</sup> | Population |            |            | Female Literacy | Male Literacy | SC & ST <sup>2</sup> Hhs |
|--------------|----------------|-------------------------|------------|------------|------------|-----------------|---------------|--------------------------|
|              |                |                         | Total      | Female     | Male       |                 |               |                          |
| 1            | Pugthala       | 12                      | 71         | 62%        | 38%        | 27%             | 63%           | 1                        |
| 2            | Bharoga        | 9                       | 43         | 44%        | 56%        | 21%             | 71%           | 0                        |
| 3            | Chulhan        | 10                      | 56         | 45%        | 55%        | 68%             | 61%           | 6                        |
| 4            | Dabbu & Banyot | 12                      | 73         | 56%        | 44%        | 46%             | 53%           | 0                        |
| <b>Total</b> |                | <b>43</b>               | <b>243</b> | <b>53%</b> | <b>47%</b> | <b>40%</b>      | <b>61%</b>    | <b>7</b>                 |

**Table-2- Socio-economic profile of the villages**

| S.No         | Village Name   | No. of Hhs | BPL <sup>3</sup> Hhs | Landless farmers | Marginal farmers | Small farmers |
|--------------|----------------|------------|----------------------|------------------|------------------|---------------|
| 1            | Pugthala       | 12         | 67%                  | 67%              | 17%              | 17%           |
| 2            | Bharoga        | 9          | 100%                 | 89%              | 11%              | 0%            |
| 3            | Chulhan        | 10         | 50%                  | 80%              | 10%              | 10%           |
| 4            | Dabbu & Banyot | 12         | 83%                  | 92%              | 8%               | 0%            |
| <b>Total</b> |                | <b>43%</b> | <b>74%</b>           | <b>81%</b>       | <b>12%</b>       | <b>7%</b>     |

<sup>1</sup> Hhs- Households

<sup>2</sup> Schedule Caste and Scheduled tribe households

<sup>3</sup> BPL- Below Poverty Line households



*Fig-4: A traditional house in Pughthala village*

According to primary information collected during household survey, 74% of total households are categorized as Below Poverty Line (BPL) according to the criteria fixed by the Central Government of India. While Himachal has the second highest literacy rate in India, in these five villages only 54% of the population is literate and in terms of female literacy the situation is much worse, with more than half of the female population being illiterate. .

More than of 90% of families are either landless or marginal (less than 5 bigha of land ownership, 1 bigha = 760 sq. m) farmers. The major summer crops cultivated in the area are maize, kidney beans, amaranths and peas. Due to severe winters, most of the agriculture fields are left fallow and in some fields wheat and mustard crop is sown. For most of the households, food grains produced from fields are sufficient only for three to fourth months and for most part of the year people are dependent on the Public Distribution System for food grains.

## **About the project**

The major objectives of this project were :

1. To build initial consensus within a cluster of villages through dialogue and awareness generation to move towards management of NTFPs, found on the common property forest lands.
2. To initiate and form village level institutions and facilitate the development of their functional mechanisms to achieve the above objective.
3. To network with other agencies like Panchyats and forest department to take up this activity on a larger scale

## **Project Activities**

Duration of project was 18 months during which the following activities were carried out :

### **1. Identification and Selection of Villages for NTFP initiative**

Selection of suitable villages for NTFP initiative was one of the foremost objectives of this intervention for upon this rests the long term success of the intervention. A shortlist was prepared of the areas that have suitable micro climatic conditions for the production of the selected NTFPs. The five shortlisted areas were Seikothi, Gulei, Hail-Teppa, Jhajjakothi and Guwadi. A map of the Tisa sub-division (the location within the Churah forest division) was prepared with the help of the local people who are well versed with the area and all the shortlisted villages were marked on it. We decided to visit all the shortlisted valleys and have a dialogue with the local community before making any final selection of villages. Effort was made to assess the different areas on the basis of three critical elements which are important for success of our intervention:

1. Community need for conservation and replenishment of NTFPs
2. The selected user groups having some exclusive forest usage area (as in case of multiple-village use of the selected areas, there are high chances of conflicts and disagreement amongst them which are very difficult to resolve in absence of any credible framework for conflict resolution)
3. Agreement of the general house and representatives of the concerned Panchyat (local self governance unit) which would provide sanctity to the intervention

To assess each area on the above mentioned parameters, we talked to individual community members, NTFP traders, panchayat representatives and wherever possible, held hamlet level meetings, met women's groups and collected revenue and forest records from the government departments (to identify the possible overlapping village boundaries).

Out of these five areas the Guwadi area was finally selected because of its relative accessibility (near Tissa town) and having five villages in one cluster to work with. The villages selected were Pugthala, Chulhan, Bharog, Dabbu and Banyot.

## **2. Awareness and confidence building exercise in the selected villages**

**2.1. Preliminary meetings:** We conducted preliminary meetings in all five villages where we briefed the villagers about the current intervention, the possibilities it offered and how it could succeed - like the pilot intervention in Kut-Butoa. These initial meetings were attended mostly by male members since it is a patriarchal society where public dealings with outsiders are done by male heads of families. At the end of this initiative the five villages nominated one representative from every family to go for the exposure visit to the Kut Batoa village.



*Fig-5: Participants in Kut-Batoa forest during exposure visit*

**2.2. Exposure visit to Kut-Butoa:** The objective of this exposure visit was to make the people of Guwadi area aware about the ongoing NTFP initiative in Kut-Butoa and to provide them an opportunity to learn from the experiences of the people there. This visit was also to make the people of Kut-Batoa take pride in their pioneering work. This was a one day exposure visit attended by forty two people from the five visiting villages - almost one

member from each family of the villages. The residents of Kut- Butoa shared their experiences in detail. The women members of Kut-Butoa user group showed them their plantation areas and shared their experiences regarding protection and management practices being followed by them.

**2.3. Feedback meetings:** The exposure visit helped in building an understanding amongst the people of Guwadi area with respect to the viability and future scope of the initiative and there was a positive response from all five villages that showed confidence and enthusiasm to take up similar initiatives in their villages. A dialogue was carried out in these villages with the objective of bringing about a realization among male members that the women are the main stakeholders and primary users of forest resources near the villages and without their consent and involvement any initiative in these areas could not sustain in the long run.

### 3. Participatory Survey

**3.1. Household and Socio-economic survey:** The number of households in a village ranges from 10 to 12 out of which almost 50% are seasonal residents (mainly women members, whereas men stay back at the permanent residences) from nearby Khushnagri panchayat. These families have agriculture land here and come here to graze their cattle in summers. The other important information obtained from the survey was on the extraction of NTFPs from wild.

**Table-3 Dependence on collection of NTFPS**

| S.No         | Village Name     | No. of Hhs | No. of Hhs involved in collection of NTFPs (Years) |      |
|--------------|------------------|------------|--|------|
|              |                  |            | 2009   | 2004 |
| 1            | Pugthala         | 12         | 17%  | 67%  |
| 2            | Bharoga          | 9          | 11%  | 78%  |
| 3            | Chulhan          | 10         | 0%   | 40%  |
| 4            | Dabbu and Banyot | 12         | 25%  | 83%  |
| <b>Total</b> |                  | <b>43</b>  | 14%  | 67%  |

According to the survey, till four years back the cash needs of about 67% of the households for a period of 5 to 6 months a year was met through the collection and sale of NTFPS like *Valeriana jatamansi*. and *Dioscorea deltoidea* extracted from nearby forests. On the other hand today, only 14% of the total households are involved in this activity and earn cash incomes for only two to three months in a year. Over a period of time, heavy extraction caused severe depletion and degradation of the plant stock and its collection became an unviable economic activity. As a result, the villagers started shifting to other cash generating activities like plantation of apple orchards which needs huge open tracts of lands under private control. This in turn has led to their

encroaching upon dense fir forests and drying up of the trees by removing their barks. Many have started working as daily wage labourers in small hydroelectric projects and Government sponsored employment generation programmes like Mahatma Gandhi National Rural Employment Guarantee Scheme (NREGS).

NTFPs were also a major source of earning for women as they used to collect NTFPs while carrying out day to day activities in the nearby forests, like collection of fuel wood, fodder, leaf litter and grazing of cattle. Due to depletion of NTFPs, the women have lost this income and there is hardly any other opportunity to compensate for that.



*Fig-6: Women bear the burden of collection of fuelwood and leaf litter*

**3.1. Vegetation survey:** A participatory vegetation survey was carried out in all the five villages using the quadrant method to study the vegetation types and suitability of factors for the regeneration of NTFPs. *Valeriana* plants were found to exist in very low density (total 23 plants registered in ten 1meter<sup>2</sup> quadrants in Pugthala and 9 plants in 10 quadrants in Chulhan, 12 plants in Bharog and 15 plants in Dabbu and Banyot.). However, the very presence of naturally

occurring *Valeriana* indicated that the local micro-climatic conditions were still suitable for its regeneration.

**4. Meetings for the formation of village committees and their functional norms:** A meeting was conducted in each of the five villages but in two villages, Dabbu and Banyot, a conflict arose over ownership of the area selected for initiating NTFP management. The formation of a village level committee had to be postponed in these villages till the time the two villages became willing to resolve their differences. In the other three villages, it was decided that since the villages were small in size all the adult members of each village shall be the members of the village body (which had to take all the decisions) and that there was no need for a smaller executive committee. In these meetings, where both women and men were present, the area for taking up regeneration work was selected unanimously. The need to prepare a plan and formulate some rules and regulation for protection and management of the planted NTFPs was discussed.

**5. Focus group meetings:** During the household surveys, two groups i.e. women and seasonal residents were identified for whom conducting focused group meetings was felt necessary. In village Pugthala it was found that people did not want any new enclosures around the plantations but wanted to regenerate NTFPs in the areas already enclosed for plantations by the Forest Department. This would help in strengthening the protection regime for the area where broad leaf tree plantation had been carried out by the state forest department. In these meetings, the women drew a social and resource map of the village and marked the activities they wanted to carry out. While Bharoga and Chulhan villages selected one contiguous patch of forest land and divided it into two halves with the understanding that one village will not interfere in the other's area.



*Fig-7: Focus group discussion with women from Chulhan village*

**6. Final Meetings on finalization of Microplans:** Final meetings were conducted to consolidate the NTFP management plans prepared during the previous meetings. In this meeting the socio-economic and vegetation survey results were shared with the villagers along with the plan prepared during the focus group meetings. In village Pugthla, community members added irrigation development facility to the microplan interventions to promote floriculture activity in the plan and formulated rules and regulation for the management and protection of the NTFPs to be planted - they placed a provision for imposing a fine on anyone damaging the plantation, the quantum of which shall be decided by the general house of the forest user group according to the scale of the damage. Subsequently, a basic memorandum of agreement was signed according to which Lok Vigyan Kendra (represented by Khemraj and Prakash Bhandari) was to support the NTFP plantation and nursery development activities while the forest user group was to take the responsibility of protection and management of the planted area. They also committed to dovetail the other activities in the management micro plan with those that are to be proposed under National Rural Employment Guarantee Scheme (NREGS).

In both Bharoga and Chulhan villages, protection of the plantations was a major issue as the selected area is used by people for grazing. From discussions it came out that *Valeriana jatamansi* is not a palatable specie for the cattle but still initial protection was needed till the planted saplings got hold of the soil well. After this discussion, all the families decided not to graze their cattle for three months after planting; members volunteered to keep continuous

vigilance turn by turn and placed a fine of Rs. 10 per cattle/sheep/goat in case of violation of the restriction on grazing.

**7. Process initiated to get Microplans approved by the General house and the Forest Department:** All three user groups i.e. Pugthla, Chulhan and Bharog, put up their respective microplans before general house of Guwadi Panchyat for its approval which unanimously approved them and passed a resolution in this regard. A copy of resolution approving the microplans was sent to Forest Range Officer and Divisional Forest Officer (DFO), for their information and approval.

## 8. Implementation of Micro-Plans

**8.1. Pre-Plantation Meeting in five villages:** Before plantation a planning meeting was



*Fig:8: An old woman from Bharog village is participating in plantation activity*

conducted in the three villages of the Guwadi Panchayat in which following issues were discussed - plantation method, arrangement of saplings and fixing a date for plantation in each village. Similar meetings were also held in the Kut Batoa and Binola villages of the Charda Panchayat where the pilot initiative has been going on.

**8.2. Regeneration work carried out in five villages:** Once the region started receiving monsoon showers and the

climatic conditions became conducive for regeneration work, plantation of *Valeriana jatamansi* was taken up in the 2<sup>nd</sup> half of August, 2009 in five villages i.e. Pugthala, Chulhan, Bharoga, Kut-butoa and Binola according to microplans. The saplings were arranged from the nurseries previously developed in Kut-Butoa village. The women members of the forest user group actively participated in the plantation activity and before 10<sup>th</sup> September, 2009 we were able to finish plantation in all five villages.

**Table-4- Village wise Plantation carried out in year 2009**

| S.No.        | Village   | Planted area (Hectares) |
|--------------|-----------|-------------------------|
| 1            | Pugthala  | 1.5                     |
| 2            | Chulhan   | 1                       |
| 3            | Bharoga   | 1                       |
| 4            | Kut-Butoa | 0.5                     |
| 5            | Binola    | 0.5                     |
| <b>Total</b> |           | <b>4.5</b>              |

In 2010, we planned to carry out plantation through MNREGS but *gramsabhas* (general body meeting of the Panchayat which takes place once in three months time) could not happen due to lack of required quorum due to which a resolution (mandatory for the release of funds for a particular activity) could not be passed for these activities in time for the plantation season.

**9. Training programme on Nursery Development:** Two training programmes were conducted



*Fig-9: Training programme on nursery development techniques in Pugthala village*

for all the members of five villages of the Guwadi Panchayat on establishment of nursery. The resource persons, Amar Singh Rana and Om Prakash, are villagers from the same forest division who had gained hands on experience in developing NTFP nurseries during a government run project. The first training programme was attended by 25 people from Pugthala and

Bharoga villages and second training programme attended by 26 people from Chulhan, Dabbu and Banyot villages. In these training programmes, a booklet on nursery techniques published by Herbal Research and Development Institute, Gopeshwar, Utrakhand was distributed to participants.

#### 10. Nursery Development work: A

combined meeting of three villages of Guwadi Panchayat was conducted in Chulhan village to identify the site and species for the establishment of nursery. During the meeting, it was decided to set up a nursery in Pugthala village and the species that were selected for nursery development are *Valeriana jatamnasi*, *Aconitum hetrophyllum*, *Picrorhiza kurrooa*, and *Jurinea macrophyllum*.



*Fig-10: Flowering in Valerian jatamansi plants kept for seed production*

A piece of land owned by Man Singh

from Pugthla village was selected for establishing the nursery. From October, 2009 to March, 2010 according to seed setting time of each species, the people collected seeds of the above mentioned species. *Valeriana* seeds were obtained from the plants raised for seed production and the other species' seeds we collected from the wild. At the end of March, 2010 the seed sowing in the nursery had been accomplished. The survival percentage and growth of saplings has been quiet encouraging for both the community and us.



*Fig-11 &12 : Valerian jatamansi saplings and Aconitum hetrophyllum, Jurinea macrophylla and Pichrorhiza kurrooa sapling in nursery*

**10. Follow up meetings and participatory monitoring of the physical activities:** The plantation was followed by monthly meetings and plot surveys in all five villages where plantation was carried out. All these five villages are protecting the plantation and following the byelaws framed by them. With Dabbu and Banyot, one more combined meeting was done in which there was a consensus to form one combined institution involving members from both villages who will responsible for management of the selected forest area.



*Fig-13: Follow up meeting in Pughthala village*

## **11. Networking Building**

**11.1. With the State Forest Department on NTFP Management work:** We attended two meetings in Sundernagar, District Mandi in the state of Himachal Pradesh, headed by Chief Conservator of forests (NTFPs), in which we presented our learnings from the current initiative and our future plans. This was a part of a process for identifying agencies for implementing a government funded project on the sustainable utilization of NTFPs. After the process, the Forest Department has selected Lok Vigyan Kendra as one of the collaborating organizations. We have

proposed the implementation of NTFP related initiatives in 10 new villages of Churah Forest division. The forest department will also provide funds to carry out physical activities like plantations and nursery establishment in the villages we are currently working with. This was an encouraging decision for us as the arrangement of funds for the physical activities was a big hurdle in expansion of this initiative over a large area.

**11.2. With other Institutions:** I have visited High Altitude Plant Physiology Research Center, Srinagar and Herbal Research and Development Institute, Gopeshwar, and discussed about our intervention with the scientists working there. This visit helped me to understand the nature and physiology of NTFPs, nursery techniques and nature of market of NTFPs.

**12. Conclusion:** We were able to achieve the projected outputs like mobilization and capacity building, village level institution formation, microplan formulation and physical activities like nursery establishment and plantation of NTFPs within the first one year. But not much progress could be made in two villages as there was a conflict over ownership of forest area to be selected for NTFP related intervention. In both these villages, meetings shall have to be conducted from time to time with the hope that the two communities shall sustain their new found understanding over a long period of time. The survival percentage and growth of *Valeraina jatamansi* planted in selected forest area is very good and the villages are looking after it very carefully.

Though we tried to tie up with local governing body i.e. Panchayat for obtaining government support under MNREGS implemented through it but due to the functional problems in the conduct of the Panchayat's general body meetings, time bound activities could not be undertaken. This year, we are planning to form one institution of all these five villages (as these are very small in size) and register it as a society under "Himachal Pradesh Participatory Forest Management Rule-2001" with State Forest Department. While this would provide legal sanctity to the village institution, it would also provide them powers of a forest officer that can be exercised in cases of violations of the rules specified in the microplans. For this purpose the microplans shall also have to be extended to other elements in the forests like fodder, fuel wood and grass. With the collaboration with the state forest department coming about, we hope to continue support to the ongoing initiatives as well as take up new villages. We also hope that we shall be in a position to benefit other collaborating organizations by sharing our experiences from

the pilot project and the five villages of the current project. This would go a long way to consolidate the community centered approach towards the sustainable management of our precious and vulnerable forest resources.