

Community forestry can be a viable strategy for reducing permanent emissions from deforestation.



Forest generation after community protection in Uttarakhand, India (*Kamal Banskota*)

Case Study: Dhaili Van Panchayat in Uttarakhand, India

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Introduction

Dhaili is a small village located at an elevation of 2000m in the Kumaon Hills, Almora district in the State of Uttarakhand, India – the hill-state where the Chipko movement to protect mountain forests took place. It is also one of 12,000 Van Panchayats (VPs) or councils of local forest managing communities of the state. Over 25% of the total forest area of Uttarakhand is under the management of these VPs. Dhaili VP has 173 households as members, who collectively manage a small forest patch of about 58 ha dominated by the Himalayan banj oak (*Quercus leucotrichophora*). Lying in the western Himalaya, Dhaili receives about 1,700 mm annual rainfall. This Chapter sheds light on community forest management practices in India, taking the case of Dhaili VP.

Evolution of Van Panchayats as Community-managed Forests

In the hilly region of Uttarakhand, the history of community participation in forest management goes back to almost a century, when local people made collective efforts to protect their forests. The concept of managing the forest through community participation emerged in the mid-1920s, following agitation against the British colonial government's control over forest resources.

The VP, a village-level forest council or assembly, emerged in Uttarakhand following the introduction of the landmark Van Panchayat Act 1931, which allowed handing over of the management responsibility for designated community forests to the elected body of VPs. Forests were previously under the direct control of the State Forest Department. The evolution process of community forestry has never been smooth in India, despite various legal provisions and the support of the civil activist movement. Most of the VPs were initiated on degraded sites officially on Civil Soyam Forests, forests managed by the Gram Panchayat on behalf of the State Revenue Department, where villagers have free access to extract forest products for local use. Unlike Civil Soyam Forests, forests under VP management are well regulated and restricted. The case of Dhaili VP represents a typical forest management regime in the state of Uttarakhand.

The forests were undergoing a continuous state of degradation owing to over-extraction of fuel wood, fodder, and timber. The local people demanded that the government declare the forest a Van Panchayat and hand over management responsibility for these forests to them. The local people of the Kumaon Hills have always been the custodians

of forest resources adjacent to their settlements. However, towards the end of the 19th century, restrictions on forest resources extraction by the colonial government created resentment among the locals. To assert the community's ownership to use and manage the forest, the local people began to guard the forest with sticks, and named this movement as 'Lath Panchayat' (lath, meaning stick, and Panchayat, the assembly of local people). The movement was effective in helping local people organise themselves and in raising their awareness to oppose the colonial government's control over the forests. For the people of Dhaili, the most important event they recall was in 1976, when they stood up collectively to protect the local forest. It was only after three decades of struggle that, in 1999, the Dhaili Lath Panchayat was formally recognised as a VP. There are two plots of forests under the management of Dhaili VP: one comprising 58 ha, and the other 10 ha at Bhatkholi Toke.

Interestingly, the reknown Chipko movement, which had a wide impact in the lower hills of Uttarakhand since the mid-1980s, had little influence on the Dhaili people. Nevertheless, they mention a number of protests organised favouring a pro-community forest policy. They also expressed that some recent forest policies namely, the Uttarakhand Panchayat Forest Rule 2001 and 2005, address their concerns and grievances to some extent. However, these policies are yet to be implemented properly to enable the community to realise tangible benefits.

Management Practice and a Legal Framework

The Uttarakhand Panchayat Forest Rules 2001 envisages the VP as a legitimate local institution with legal rights for managing designated forests. The forest officer of the region is responsible for providing the VP with training and resources for building VP capacity. One key support is to help the VP develop a five-year management plan called the Micro Plan, which is a community forest operation plan. Without the Micro Plan, a VP cannot exercise its legitimate right to use and manage the forest. Based on the Five-Year Micro Plan, the VP is also required to develop an Annual Work Plan. The elected committee is responsible for carrying out forest management activities in accordance with the approved Micro Plan. The plan clearly states provisions for operating a VP fund, a bank account, auditing and reporting, amongst others. To oversee the functions of VPs, VP inspectors are appointed through the government's Revenue Department. They report to a designated VP officer at the State Revenue Department.

A general assembly of all entitled households takes place every year, but the VP committee meets at least once a month or more, if required. The head of the VP is responsible for keeping all records: decisions, activities, income-expenditures, and all correspondence. The major management activities of the elected body include guarding the forest against illegal extraction of forest products, to ensure strict enforcement of the prohibition on cutting down standing trees, unless dead or fallen naturally, and to regulate extraction and distribution of fodder, fuelwood, litter, timber, and other products. For this purpose, a time is fixed, usually 15 days in each year, for the members to collect the forest products they need. A family is charged Rs 20. Out of 173 member households, 130 households which are entirely dependent on farming for livelihoods take this benefit

regularly, whereas the other 43 households are involved in other professions and collect forest products on an irregular and limited basis.

Though households have a tendency to collect and store as much fuelwood as possible during the 15 allotted days, the VP forest is open, and the supply capacity of the forest is less than the demand. The shortfall is met by the Civil Soyam Forest¹, located several hours walking distance away from the village. The Civil Soyam Forests have become conflict zones between the government and local communities, as both claim their rights over these forests.

In Dhaili VP, community members are allowed to cut down dry trees for house construction purposes. However, in practice, much of the community's timber requirement is imported, but fuel wood, fodder, and litter demands are met from the VP forest. The adjacent Reserve Forest is also used for extracting litter and dried fuelwood. Even though illegal, women carrying head loads from the reserve forest are not restricted by the guards of the State Forest Department (SFD).

The State Forest Department also gives permission for limited access to extract forest products from government reserve forests, in recognition of local people's 'hak-hakuk' rights, but only from a designated site, usually beyond the reach of villagers. 'Hak-hakuk' is a provision since the Colonial Period to regard the age-old rights of the locals over the natural resources for allotment of timber from a Reserve Forest. The SFD, on the basis of a fixed allocation to a village and in accordance with the availability of dry/fallen trees, makes an allotment to the Gram Panchayats, the government administrative unit at the local level; each Gram Panchayat can have one or more VPs. But in Dhaili, no one has been able to fetch their share of timber from the hak-hakuk forests to date. To household members of Dhaili VP that fall under the Jageshwar forest range, this allotment is made in Morpatudi (Nathukhan forest range), which is 50 km away from the village. The Dhaili community has been unable to benefit from this allotment, as it is economically unfeasible. Although not clearly visible, this reflects a situation of conflict between villagers and the SFD.

The Dhaili VP performs management activities in accordance with the rules and guidelines prescribed by the Uttarakhand Panchayat Forest Rules 2001. A VP usually has a nine-member committee. Dhaili VP is managed by an elected committee composed of seven persons voted for by all 173 households who are the legitimate users. All the seven members are men, with one being the officiating member representing the Gram Panchayat Chief (Chief of the elected village-level government). Elections are held every five years. One member from among the elected members is the VP chief or Sarpanch. At least one such meeting is held as the General Assembly where all the villagers, including women, participate. It is in this meeting that the VP decides on collecting money, if required, for management practices such as appointment of a watchman, and also presents the VP's financial account. The VP can impose punishment for illegal logging. Mining and logging are banned, and the only timber extracted is from dry trees. For illegal logging, a fine of Rs 50 is imposed, plus the cost of the wood.

¹ Civil Soyam Forest: The Revenue Department has the administrative control over the Civil Soyam Forest. It has been observed that the district revenue administration lacks funds and is overburdened with official work and thus is unable to give adequate time and attention to forest matters. As a result, these forests are less regulated and guarded in comparison of Van Panchayat or Reserve Forests.

According to the committee members, each user household contributes to forest protection by providing volunteer labour service for a minimum of four days in a year. However, the number of days of labour contribution varies from house to house. Labour work involves plantation, fencing, and removing logs, amongst others. Those involved in special assignments for forestry work are paid through a waiver of the annual fee, or get a discount on the permit fee for collecting forest products. A few days of labour contribution reflects the minimum management activities in the forest.

The elected body is mandated to develop and implement the Five-Year Micro Plan consisting of all actions necessary for the protection and use of forest products. This is submitted for approval to the State Forest Department. Technically, the Micro Plan and the Annual Work Plan both require prior approval of concerned forest officers. Until and unless the plan is prepared and approved, the VP cannot do much other than to guard the forest.

Owing to resource constraints, the SFD has been unable to provide technical assistance to the majority of VPs, including Dhaili, to develop their Micro Plans. As a result, Dhaili does not have a Micro Plan, nor an Annual Work Plan. Thus, the committee is yet to practice its rights to carry out management activities of its interest other than protection and limited use of the forest. To the question why Dhaili had not developed its Micro Plan, the Sarpanch had this to say: "We neither have the idea nor the capacity to develop it".

Forest Condition and Use of Resources

The pressure on the forest is increasing as the population of Dhaili and the neighbouring areas has increased since India's independence. The general motives for forest protection and management are founded on the expectations of the locals of immediate returns from the forests and its resources. For the Dhaili community, becoming self-sufficient in firewood, leaf litter for compost, and fodder, and being able to prevent outsiders from using their forests, is an important motivation to protect and manage them. Another significant reason is to conserve the source of water on which the majority of households depend for potable water.

The availability of water from the local spring source has been declining for over a decade in Dhaili. There is a general perception that the continuous degradation of the forest upstream is the main reason behind the growing water scarcity in the village. This common problem has led local people to organise themselves as a collective effort to manage the local forest in the best interest of the community. As their elders did, the community planted oak species on the belief that oak would hold, absorb, and retain more water and for a longer period, thus, keeping the spring flowing even during the long dry season. The conservation effort is showing success and the spring is now able to provide drinking water to the entire Dhaili village through a 2-inch pipeline which has been laid out recently.

According to Dhaili people, the condition of VP forest has improved over time, where banj oak (*Quercus leucotrichophora*) is the dominant species. Some of the village elders mention that, until 30 years ago, the present forest area was almost a barren land due to poor management as well as conflict between government and local people. In contrast, the locals are now better aware of the need to conserve their forests. Illegal activities have been reduced over the years as more people participate in conservation efforts. The locals are also aware that the forest on the steep slopes has helped conserve the soil and has prevented landslides.

The major forest resources extracted from VP forest are fuelwood, fodder/litter, and dried timber. The main source of energy for cooking is fuelwood. Although LPG gas is sold at subsidised rates by the government, most of the villagers find it unaffordable as well as inaccessible. Grazing is allowed in the VP for legitimate user households. Animals grazed in the forest include goats, cows, and buffaloes. Lately, this VP is experimenting with selling moss and other NTFPs to a trader outside the village. Such sale, if carried out regularly, will provide an alternative cash income source to the VP.

Institutional Capacity and Sustainability

As long as the right to manage their forest resources are provided, the local people are capable to manage their forests. The VP members in Dhaili have their own parameters for monitoring the forest's status. They employ visual indicators such as density of biomass; type, size, and quality of trees; area of barren plots within a forest area; regeneration status; and signs of livestock grazing. With limited resources, the VP is able to prioritise the tasks of management in a cost-effective and efficient way. Their first choice of species for plantation is banj oak, which they have been traditionally using to augment water flow from small springs.

Gender and Equity

Traditionally, women go to collect fodder, forest litter, and fuelwood daily. However, they lack representation in the management committee. According to the VP Chief, women are not in the VP committee because they do not have the time, and also because they lack managerial skills. The general view of the VP members is that women should be included into the VP committee because they go to the forest more frequently, and thus need to be sensitised on the importance of protecting the forest from over extraction and from degradation. In addition, having women members in the VP would make it easier to convey messages to other women on VP activities, rules, and regulations, and conservation efforts.

To make forest products available to all, rich and poor alike, in Dhaili village, prices are fixed at the General Assembly. For example, Rs 20 is levied for the collection of dried leaves, which is permitted for 15 days; a dried pole is Rs 50, and a big chir pine pole Rs 200. These prices are affordable to even the poorest in the village, according to the locals. For larger dried timber, the VP determines the price only after inspection of the site. If the site contains a considerable number of poles, they are auctioned within the

Dhaili VP; exporting or selling timber and forest products outside the village is strictly not permitted.

The Importance of Livestock

Cattle in Dhaili are mainly kept for dung and dairy. Cows are the most common livestock despite their use being the least. Most cows are low-yielding local breeds living on low quality fodder and hence, are not specifically reared for milk. They are reared for their dung, which is the most valuable nutrient to the mountain agricultural system. Dung is composted with forest litter and applied into the fields and is the major source of soil nutrient. Leaf litter composted with dung is the main source of nutrients for rain fed-hill terraces. Two quintals of manure which consists of 0.5 quintal leaf litter, is applied in one 'nali' (50 nali = 1 ha) of land, the remaining 1.5 quintal being dung. This manure is also sold at Rs 1 per kg. Agriculture is mainly of a subsistence nature in Dhaili and inorganic fertilisers and pesticides are not widely used because they are expensive.

Crop and Livestock Depredation

With the increase in forest cover in and around Dhaili, frequency of wildlife sightings and damages to crops and livestock have increased. Like the community-managed forests in Nepal (CFUGs), VP forests in Uttarakhand are becoming increasingly important habitats for wildlife outside protected areas. Leopards, wild boars, porcupines, hog deers, and barking deers, are frequently sighted. Farmers are not compensated for the wildlife depredation. Langur monkeys and several kinds of pheasants are also found in this forest. There is no animal hunting in the village, following the Indian Wildlife Act of 1972. Possibilities for nature tourism, taking advantage of road accessibility to the village, remains an untapped potential.

Opportunity Cost and Environmental Services

The opportunity cost of managing the forest appears low because of the traditional management practice in which everyone is responsible for guarding the forest voluntarily. A security guard is paid for monitoring the forest, the rest of the committee members are required to contribute their time voluntarily, as and when required.

The VP generates a number of environmental services of local to global significance. The source of potable water is the number one benefit of the forest for local people. Carbon sequestration is another important service provided by improved forest management. Habitat to endangered wildlife at the high altitude region, source of medicinal plants and greenery, these other services remain untapped for income generation. Without government recognition of their contribution, both collectively and individually, the VPs will continue to face problems in enhancing their capability to mobilise resources. Helping the VPs to organise a functional council or federation so that they can bundle up the fragmented resources for a collective market approach could be a way to plan ahead. The responsible departments, the State Forest and Revenue departments, regard VP-related work as a low priority, as they are overburden with their routine official tasks.

Although the state government, appreciating the relevance and importance of the VPs, has taken significant steps to upscale the number of VP-managed forests, there remains a void in the functioning and efficiency of these local level institutions. The spirit of the law, as committed in the Uttarakhand Panchayati Forest Rules 2005, has to be incorporated in the routine functioning of VPs across the state. Timely elections, ensuring desired representation of women and marginalised sections of the community, feasible micro plans and annual action plans based on financial resources allocations, and a realistic distribution of responsibilities among government officials, are the major areas needing attention. There is also a need to define the role and responsibilities of the newly introduced concept of advisory committees at block, district, and state levels. To take advantage of their collective strengths these committees are required to perform a coordination role, conflict resolution efforts among the VPs, and financial resource mobilisation-related tasks. The required policy interventions and institutional arrangements in these areas would further strengthen environmental governance at local levels in the state on the one hand, that would create a replicable example for the rest of the country on the other.

Leakage

Dhaili VP community has three forested areas within its use: 1) the VP, directly under its management; 2) the Hak-hakuk Forest Reserve, under the management of the State Forest Department; and 3) the Civil Soyam Forest, under the State Revenue Department. Though a substantial portion of fodder and fuelwood needs of the community is met from the VP forest, this is far from enough. They have to meet their own needs by extracting forest products illegally from the surrounding government reserves forests and the Civil Soyam Forest, but not from the designated site of Hak-hakuk Forest, which is some distance. However, these forests outside VP management are visited only in periods of severe scarcity for fodder and firewood. Detailed research needs to be done to assess leakage.

Issues Pertaining to Dhaili Van Panchayat

Lack of a Five-Year Micro Plan has crippled the Dhaili VP from functioning as an autonomous local institution in a legitimate manner. For example, the Sarpanch's efforts to raise funds to fence the forest area and save new plants from livestock grazing has not been successful because of the absence of a Micro Plan. As a consequence, the VP finds itself spending more time guarding the forest than managing it. Local people have expressed willingness and a commitment to use the forest as a productive resource without compromising its long-term sustainability and environmental functions. However, without strengthening the capacities of the VP, it is not possible to generate additional benefits from the forest.

Financially, the VP is still not strong and self-sustainable. Dhaili VP's expenditure in last 12 month was Rs 7,500, which is almost equal to its annual income. The main source of income is selling dried leaves and grasses and dried/dead timber to local households.

The issue of sustainable management of the VP forest may be analysed against the following ground realities.

- Supply capacity of the VP is inadequate to meet local needs for forest products throughout the year, and the locals have to rely on the Civil Soyam Forests partially for 10% of their needs for fodder and fuelwood.
- Limited legal rights are given to the VP to carry out the required management functions, such as removing mature trees for the locals' needs for timber and fuel wood.
- Motivation to plant useful tree species is undermined by a law that forbids logging above 1000 masl unless the tree is dead. (The Indian Forest Act and a recent ruling of the Supreme Court prohibit cutting down of standing trees in hills above 1500 masl, unless they are dead or have fallen down naturally.)
- Government officials lack trust and a confidence on the capacity of the VP to enhance productivity of the forests.
- Inadequate recognition by government agencies of the community's efforts in protecting the forest for decades has raised public perception that government may reclaim its control over the VP, denying the community their rights to manage and use the forest resources.

Given the condition that VP forests sustain a subsistence economy on a day-to-day basis, management sustainability could suffer owing to financial constraints. With the global crude oil prices on the rise, reduced government subsidy on LPG gas makes LPG expensive, and the pressure on forests will continue unabated. However, promotion, adoption, and management of energy-efficient technologies such as improved cooking stoves and biogas plants, if done on a wide-scale basis throughout the region, could help reduce the pressure on forests.

Conclusion

The Van Panchayat is generally seen as a partnership of local communities and government for the sustainable management of local forests. The partnership is supposed to be a 'win-win' situation where both government and the communities' interests are fulfilled. Principally, the government intends to ensure the protection of the forest in its natural form and the communities' interest is to ensure their legitimate access to forest resources for meeting their local needs without jeopardising sustainable forest management. The study of Dhaili VP shows compelling evidence that building partnerships with communities can create opportunities for both the government and local people. But capitalising on the opportunity requires an initial investment from outside to build local capacity, which the community cannot afford.

The local people of Dhaili have been successfully managing and protecting a small forest patch over time. Despite population growth, the VP in Dhaili has been successful in avoiding forest degradation and conserving their forest. These efforts have been possible solely through the interest of the local community; without their commitment, conservation would not be achieved.

Although there is a strong local commitment and interest in managing VP forests in the future, challenges and uncertainties for management sustainability lie ahead. Without proper value addition to the services of the forests for generating revenue, the community finds it difficult to manage forest resources in a sustainable way. This is important, as the management style of the VP to date is rather traditional, with limited capacity to formulate plans. It needs technical support to better plan the management of forest resources to help in generating additional benefits, and also to undertake more effective conservation endeavours. These issues are likely to be more important as the role of forests in regulating climate change becomes a central issue in the coming decades.

There are local conflicts between the government and local interests. A policy constraint such as forbidding logging above 1000 masl is a severe disincentive for more intensive forest management. Although VPs are protecting, managing, and harvesting from their VPs, their legitimacy is in question without the formulation of a Micro Plan and Annual Work Plans. Similarly, granting forest use rights, such as Hak-hakuk forest use rights, at a distant site from the village is seen as government's hidden interest to deny the community legitimate access to forest resources.

Developing a carbon offset project could be one way for the VPs to claim payment for the environmental services their forests render as an incentive for reducing emissions from deforestation. However, this requires the collective approach of many VPs like Dhaili to bundle their products for marketing. If government level initiatives could reciprocate the efforts of VP communities, the mountain community at large will enhance its resilience to cope with the negative consequences of climatic impacts in the future.