Expanding the Oak Afforestation in Himalayan Region through Communities: Leading towards Ownership and Sustainability
Project Implementation

The Himalayan Region along the northern border of India supports a variety of species in its forests which vary in species composition from east to west, low to high elevation. These forests have in the past and continue to play a key role in safeguarding the environment and have provided long-term ecological security to the sub-continent.

The scale and nature of current environmental problems in the Himalayan Regions are large, whilst human populations continue to grow exponentially. This results in depletion of natural resources, in addition to their pollution or mismanagement. The degradation of the Himalayan forests has been linked to environmental problems in the northern plains of India and Bangladesh, home to over half a billion people. Forest degradation has been held responsible for increased landslides and soil erosion leading to the damage of the Himalayan agro-economy, loss of livelihoods and out migration of the locals. Decline of these forests has also led to the drying up of numerous perennial springs. In order to counter this problem, initiatives such as reforestation with integrated renewal of degraded watersheds is being explored.

Strategies for sustainable development by combining ecological and economic considerations are a challenge and need to be addressed. With more area under ice and snow than any other in the world outside the polar caps, the Himalayas are often in the news for the shrinking of glaciers due to global warming and increasing vulnerability of people in the events of weather extremes and consequent landslides and floods.

There are five species found in the Kumaon Himalaya i.e. Quercus leucotrichophora, Q.floribunda, Q.semicarpifolia, Q.lanuginose and Q.glauc. The Banjh Oak (Quercus leucotrichophora) is the most common broad leaf tree in the mid-elevation Central Himalaya in India, which is also being used in this project. VNV Advisory Services and its on-ground partners are exploring the reforestation and afforestation of oak in Uttarakhand in an attempt to revive the Kumaon ecosystem.

As part of this project, the team works with the “Van Panchayats” (VP or Village Forest Councils are unique community managed forest institutions. The first "Kumaon Panchayat Forest Rules" was issued in 1931 which enabled mountain communities to own and manage their own forests). Members of the community have formed Self-Help Groups or SHGs (small voluntary associations of individuals in the village/area) who have come together to contribute to the project and solve their common challenges.

CHEA- India founded in 1981, is one of the earliest societies founded in proper northern India with mountain environment as the focus of its concern. The lead of the oak tree is the emblem of CHEA. The oak forests are associated with water, humidity ,biodiversity, in short with life, in the mountains of the state. It is the tree of the masses and is the lifeline of the village communities. In more ways than one, the emblem of CHEA embodies what the organization stands for "environment and livelihoods of people in the Himalayas.

Fulfillment of basic human needs, active participation of women, provision of and access to infrastructure services, human rights, democratic institutions and good governance, focus on youths, and participatory decision making on resource use are some of the areas that concern CHEA.
Project Objectives

To study the acorns collected from different regions and standardize the storage and sowing methods for the oak acorn. Including collecting data on the germination survival and growth in different sites.

To encourage community (especially women SHGs & VPs) to facilitate in protection and management of sites.

To link communities with development programmes for livelihood improvement and resource mobilization.

To certify the project as a carbon reduction/offset project to sell as carbon credits. The sale of these credits will go towards project monitoring and maintenance.

Women SHG's

Collect acorns

Sow acorns and maintain saplings

Compensated for the effort & encouraged to participate in conservation
Species of Interest

- Quercus floribunda
- Quercus glauca
- Quercus semicarpifolia
- Quercus lanuginose
- Banjh Oak
Country: India
State: Uttarakhand
Districts: Nainital, Almora, Pithoragarh

Implementation Partner
CHEA (Central Himalayan Environment Association)

Community involvement
Involving 100 Van Panchayats (VPs)
120 Self-help Groups (SHGs)
60-70% of stakeholders are women

Duration of the Project
30 Years

Approx area covered
2,000 hectares across 3 districts
Planting 12,50,000 oak seeds

Estimated Sequestration (tonnes CO2e)

<table>
<thead>
<tr>
<th>Duration</th>
<th>Sequestration (tCO2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10 years</td>
<td>1,65,581 tCO2</td>
</tr>
<tr>
<td>20 years</td>
<td>900,115 tCO2</td>
</tr>
<tr>
<td>30 years</td>
<td>23,11,343 tCO2</td>
</tr>
<tr>
<td>Total</td>
<td>3,377,039 tCO2</td>
</tr>
</tbody>
</table>
The Benefits

**Carbon Sinks**
500 hectares covered with over 12 lakh banjh oak seedlings who will soon act as carbon sinks, assisting in soil and water conservation in the area.

**Women Empowerment**
Greater involvement of women SHGs and VPs and the local communities as a whole in monitoring and management of planted oaks.

**Livelihood Benefits**
Income generation activities promoted/adopted among the households in the area through horticulture and livestock promotion.

**Knowledge Building**
Awareness and convergence of communities in the area towards one cause.

**Enhanced Capacity for Sustainable Forest Management**
Better capacity for planning, managing and monitoring (MRV) forest resources.

**Carbon sequestered in trees and soil**
Due to afforestation there will be an increase in carbon dioxide sequestered from the atmosphere.

**Enhancement of carbon stock through mitigation of Climate Change**
Certification of projects will lead to the generation of carbon credits which once sold will provide funds needed to continue managing the plantation sites and providing livelihood.
SDGs addressed by the project

1. No Poverty
2. Gender Equality
3. Climate Action
4. Life on Land
VNV Advisory Services has been at the forefront of working with climate change and livelihoods. Our decade-long experience has seen us develop low-carbon projects that support these communities in getting their basic needs while adapting to and mitigating the harsh impacts of climate change. We work in areas of clean cooking, social forestry, sustainable agriculture, rural energy access and many other related community based technologies. With support from over 40 NGOs and implementation partners, our work encompasses over 4 million rural households and 50,000 hectares of forest areas under management across the South Asian (India, Bangladesh, Nepal, Laos, Myanmar and Sri Lanka) region. We have also been able to engage with businesses to address issues of Social Responsibility, Environmental Sustainability and Carbon Neutrality.
Contact

41/1, Reyyan Towers,
VNV Advisory,
Church Street,
Bangalore – 560001
+91 80 4242 9916/9933
contact@vnvadvisory.com

Value Network Ventures Advisory Services Pte. Ltd.
10 Anson Road, #29-07 International Plaza,
Singapore 079903