

Community Conservation Area (CCA) Model in Kohima is a motivational sustainable step

A State Government Project (SGP) of National Mission on Himalayan Studies

Communities should show serious concern for their forests and give priority to their conservation, this is one of the priorities for forest conservation in the Indian Himalayan states. An attempt has been made to do the same work under the NMHS project in Kohima in the IHR state of Nagaland. **The project “Increasing Carbon Sequestration and Promoting Conservation of Declining life support Forest Tree Species through Community Participation in Kohima”** was formally initiated in the year 2021. This is a joint effort project executed by the Department of Environment & Climate Change, Government of Nagaland, in collaboration with the GB Pant Institute of Himalayan Environment and Sustainable Development, Almora, Uttarakhand, funded under the National Mission on Himalayan Studies(NMHS). Five (5) villages under Kohima District have been selected for the pilot project, viz. Phesama, Kigwema, Viswema, Jakhama & Khuzama .

The Japfü Range and Dzükou Valley comprise a unique Himalayan ecosystem, playing a vital role in providing crucial ecosystem services to Nagaland’s state capital, Kohima. Serving as the primary catchment area and water source, these areas are essential for water, environmental, and agricultural sustainability and productivity in Kohima district. The natural streams and rivers stemming from Dzükou Valley ensure a steady water supply to Kohima city and neighboring villages, while also recharging aquifers. Furthermore, Dzükou Valley boasts rich biodiversity, contributing to its status as a pristine and unparalleled Himalayan ecosystem, unparalleled in the eastern Himalayas. However, like other regions in the Himalayas, Dzükou Valley is fragile and susceptible to both natural and human-induced disasters. In response to these pressing challenges, this project, emerges as a beacon of hope and innovation. Anchored in principles of sustainability and community engagement, our initiative seeks to tackle the dual challenges of climate change mitigation and biodiversity conservation through a collaborative approach.

The valley has ecologically sensitive flora and fauna, fragile hills, and intensive agriculture & horticulture. Due to high altitudinal variation, the slopes are steep. Coupled with the exploitation of forests for various activities, including shifting cultivation, soil erosion is widespread and some places are regularly experiencing landslides. The land holding system in Nagaland is unique in the sense that all lands belongs to individuals/families or communities. As such, forest department has no land holdings in the proposed project area, depriving it of the opportunity for need based scientific management of its forests. The management and conservation efforts need to be institutionalized. Due to the unique Himalayan ecosystem of the proposed project area, there is an urgent need to establish Community Conservation Areas, which will not only be a repository of biodiversity but also act as an important buffer in sustainable management of land and water resources. The dependency on natural forests for fuelwood and minor timbers, needs to be addressed through agroforestry, assisted natural regeneration of the natural forests, and plantations on river and stream banks with local species like alnus, naga neem and some multipurpose trees like prunus species, etc. These core forestry activities of soil and water conservation, agro-forestry and plantation activities will go a long way in building resilience of the project to the effects of climate change, while also increasing the carbon-sink pool. The local populace, especially the women, are very interested in horticulture (both vegetable cultivation and flowers) and animal husbandry (especially poultry and piggery). There is a very good scope and potential for economic empowerment and sustainable land and water use through the development of these two sectors. There is a need to have concerted awareness campaigns for sustainable land and water use and conservation of nature across all age-groups and communities. There is also a need to develop standard-operating-procedures and protocols for nature conservation and sustainable development, so that efforts can be institutionalized.

Capacity building and policy advocacy (at Village and state levels) will be a strong component of the process. In this light, two key research areas and two key interventions are proposed. The first key research is the collection of baseline data on plant biodiversity in the area, including the identification and documentation of economic/socio-economic uses of plants occurring in the region and the future potentials of plants in the socio-economic lives of local people. The second key research area will focus on an aerial survey of the area through unmanned aerial vehicle photography.

These two key research areas will provide a rich mix of qualitative and quantitative analysis as well as an overall understanding of interventions and practices that can be adopted in the sustainable use of land and water resources (including biodiversity) in the project area. The first key intervention area will be to involve the community in plantations and soil

and water conservation works, especially in the catchment areas of perennial streams and rivers. The second Key intervention is to facilitate the establishment of Community Conservation Areas.

The following steps taken during project:

Approximately 2 Lakh saplings, such as *Toona ciliata*, Oak, Alder, and Cherry, were meticulously planted in (CCA) zones during the expansive plantation drive. This concerted endeavor significantly bolstered carbon

sequestration efforts while fostering the rejuvenation of vital, life-sustaining tree species.

A comprehensive drone survey was systematically conducted across (CCA) zones, meticulously followed by thematic mapping exercises to ensure a thorough understanding of the landscape’s ecological nuances.

The foundational baseline data pertaining to plant diversity within the ambit of the 05 villages has been meticulously compiled, serving as a future conservation efforts.

Engaging sessions orienting and deliberating on the CCA Conservation Plan were effectively conducted across all five villages, eliciting active participation from a commendable total of 127 enthusiastic attendees.

Concerted efforts were made by conducting awareness programs to underscore the imperative of climate change mitigation, aligning with the overarching objectives of the project. (345 beneficiaries)

All five villages were officially designated as plastic-free zones, signaling a resolute commitment towards curbing plastic pollution and fostering eco-friendly practices.

Notably, the establishment of the Community Conserve Area (CCA) stands as a testament to concerted conservation efforts, serving as a model for similar endeavors in Nagaland’s villages and other regions in the Northeast.

The Five villages in Kohima District, Nagaland, belongs to the ST Community with a total population of around 36,921, are conveniently close to Kohima Town. According to gathered data, most households in these villages rely on agriculture, horticulture, and piggery, with about 95%, 95%, and 80% of people engaged in these activities respectively. Poultry farming, daily wage labor, and medicinal plant cultivation are also common, involving 60%, 35%, and 30% of the population respectively. Fishing, dairy farming, and beekeeping make up smaller portions, with 5%, 2%, and 2% involvement, respectively. Handicraft production, including non-bamboo and bamboo-based crafts as well as weaving, engages around 7%, 1%, and 1% of the community respectively. Notably, eco-tourism, handloom making, pottery, and food processing are not prevalent in these villages.

While these villages largely rely on their rich natural resources and are mostly self-sufficient, the increasing population each year and leading to the degradation of these resources due to overexploitation.

The project covered the multifaceted challenge of climate resilience, gender parity, and effective communication. It meticulously ensured the inclusion of women at every stage of implementation, fostering their active engagement in discussions, awareness campaigns, resource management, and decision-making within their ecosystems. Embracing a gender-neutral approach, the project devised a comprehensive strategy for communication and capacity building. Recognizing the perishable nature of the agricultural yields harvested by women in the region, efforts were directed towards mitigating post-harvest losses. In this regard, women were equipped with practical skills in pickle and soap production, utilizing locally sourced materials. This initiative not only bolsters their livelihood prospects but also fosters socio-economic empowerment, a pivotal component for the project’s success.

“By harnessing the power of community participation, we envision a transformative journey towards enhancing carbon sequestration and safeguarding endangered life support tree species in Kohima District. Through this introductory narrative, they embark on a journey elucidating the significance of our project, the critical issues it addresses, and the inclusive methodologies it employs to achieve tangible and lasting impacts”.

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