

**Process Framework for the CEPF project Linking Fragmented Freshwater Swamps through the Restoration of Micro-corridors in Central Western Ghats, implemented by the Snehakunja Trust**

**Project details:**

Fresh water swamps are important ecosystems in the Western Ghats because of their unique assemblage of floral and faunal biodiversity. These are confined to low altitudes characterized by sluggish flowing streams of Western Ghats' river systems. These wetlands play a critical role in flood control and maintaining ground water level. Members of and others are significant part of this swamp community. These species are economically very important and are recognized as 'threatened'. These swamps possess a variety of microhabitats which provides favorable conditions for survival of many annelids, arthropods, molluscs, fishes, amphibians, reptiles, birds, mammals and economically and ecologically important plant species of Myristicaceae, Celestraceae, Diptereocarpaceae, Anacardiaceae, Xanthophyllaceae family. Today Myristica swamps are critically endangered ecosystems in the Central Western Ghats. These fresh-water littoral evergreen forests once formed an extensive network along the streams of Western Ghats and were dubbed as lifeline of fresh-water organisms in the Western Ghats. Interaction among these swamps within a chain is generally stronger than the swamps of two diverse rivulets because of the physical separation of the valleys as well as because of poor dispersal mechanisms. However, these habitats are now reduced to highly fragmented pockets because of degradation. Effects of such fragmentation would be more severe among these swamp-dwelling plant species since they have poorly developed dispersal mechanisms and are more sensitive to the micro-level habitat change. Because of these reasons, genetic exchange among these fragments would be severely affected if they are not physically connected through corridors. Understanding and characterizing such meta-population interactions among swamps would require a long term and multi-disciplinary approach. The proposal envisages to identify critical micro-corridors linking fresh-water swamps, characterize the vegetation composition of these links, re-vegetate these areas through enrichment planting and through the creation of newer linking swamps with carefully selected species of plants assuming that such micro-corridors would enhance the interactions among the swamps and lead to more stable systems. The overall aim of the proposal is demonstrate

restoration the past net-work of a few freshwater swamps through a “recovery action-oriented programme” such that genetic exchange among the populations is facilitated.

**Social context:**

The major part of the populations living in and around the project site belong to communities like Uppars, Namdhari, Halakki Vokkalu, Agera, Gabits, Ambiga etc, and these are not rightfully/originally/traditionally forest-dwellers. These communities have been recognized and categorized as backward communities as per the Govt. of Karnataka norms.

The above said communities are basically landless or marginal land holders with higher dependency on forest resources. However, in recent years due to deforestation and processes like urbanization there has been a remarkable reduction in forest resources which has rendered these communities depend less and less on forest products. Hence for their livelihood these communities have taken up different occupations such as:

Gabits & Ambigas –	Fishing and laborers, Govt. jobs
Halakki Vokkalu –	Agriculture, Agricultural laborers
Uppars –	Lime production, Construction Work
Namadhari –	Agriculture, Construction laborers, Govt. jobs, Contract work,
Agers—	Laborers

Our project would not be an obstruction for day to day activities of surrounding communities, activities such as grazing, fuel wood collection. The project does not intend to acquire any land by fencing out the local communities. The intended project does not adversely affect the right of these communities and collection of any of the natural resources that they are legally entitled to do so.

Involvement of these communities in restoration of swamps would provide them additional occupation and gradually they (especially those who are working as laborers) will be encouraged to come back to their original occupations.

Awareness and training on sustainable use of forest resources would not only enable the above said communities to use the forest resources for their livelihood purpose but also would help in proper management of the resources.

Entire project would be participatory with local representatives from Village Forest Committees and women groups, where all the communities in the region are involved. The project objectives would be explained to them and project planning, activities and implementation shall be done with the involvement of these communities.

Further, apart from these VFCs and Women groups, community leaders and local governing bodies such as Village Panchayats and Taluk Panchayats are consulted for the participatory planning and execution of the project.

**Project components:**

1. Mapping freshwater swamps and critical micro-corridors linking these swamps and drainage pattern from uphill landscapes as well as identifying the threats for these systems.
2. Characterizing the swamp fragments and micro-corridors for species composition resource use by the local people and developing an enrichment protocol.
3. Standardizing protocol for propagation of swamp species through participatory approach
4. Creating micro-corridors through enrichment planting and through creation of new swamp populations such that habitat is also recovered.
5. Achieving a lasting restoration of the swamps.

**Project design and consultations with local communities and stakeholders:**

The project was designed based on the earlier work on swamps. Further it was developed in consultations with local communities especially Village Forest Committees (VFCs), State Forest Department, Irrigation and watershed Departments and local institutions like Village Panchayats. Preliminary meetings and surveys were under taken to understand different stakeholders involved past and present threats to swamp forests and causes for fragmentation due to degradation. Participatory approaches were designed for mapping the fresh water swamps, critical micro corridors linking these swamps, characterizing the swamp fragments for species composition, resource use and enrichment protocol.

Communities would be involved in raising decentralized nurseries of swamp species and other important species required by the local people. Creation of one corridor through enrichment planting would also be based on the inputs from the VFCs in the region and in consultation with Forest Department. Officials at different levels in Forest Department and other staff were consulted to ensure their active involvement in implementing the project and for the effective management after the project period. Watershed engineers were consulted for designing different soil and moisture conservation structure according to topography of the region. However, the catchments area selection and construction of these structures would be based on final discussion with all the stakeholders involved.

**Impact assessment of project components:**

Component 1.

Project component one envisages mapping of fresh water swamps and critical micro-corridors, identifying the threats for these systems and study the agriculture practices that contribute to the disturbance of the swamps.

In this component possible adverse impact could be restriction on collection of NTFPs, fuel wood and collection of fencing poles for agriculture purposes. One more impact could be disturbance in existing agriculture practices, and restriction to divert the drainage system from swamp region to farm land.

The project activities does not involve involuntary restrictions on harvesting of these resources, however, because emphasis would be given to community led sustainable management of the resources. Efforts will be made to provide technical inputs to raise saplings of useful species and cultivate them in the farmer's field after thorough consultation with the communities and other stakeholders.

Component 2.

This component mainly focuses on research and survey and hence does not involve any activity that would have adverse impact to local communities.

Component 3.

This project component also involves mainly standardizing protocols for propagation of swamp species, study local knowledge on raising and cultivation of species and establish

community based nursery. Therefore, it also does not involve any activity that would have adverse impact to local communities.

#### Component 4.

Current ownership of the land of intended restoration activities lies with the State Forest Department. According to our preliminary survey the current usage of this land is for collection of NTFPs, fuel wood, fencing poles and water for agriculture and non agriculture purposes which was explained earlier. Restoration of swamps with enrichment planting would be done involving Village Forest Committees, Forest Department and other stakeholders and we have already consulted concerned stakeholders at various levels. Selection of the micro-corridor for enrichment planting would be finalized by participatory methods. Project activity does not involve restricting access to these resources but tries to promote better management practices and provide incentive in the forms of: (i) cash income from cultivation and sale of seedlings; and (ii) increased freshwater availability after restoring swamp habitats, and creating soil and moisture conservation structures in swamp and upland regions.

#### Component 5.

This component focuses on creating new Village Forest Committees and Biodiversity Management Committees or rejuvenating existing such bodies and managing and conservation of swamps/soil moisture conservation structures. We do not expect any adverse impact to local communities by this project activity.

#### **Compensation to affected people after restoration of swamps, measures to monitor negative impact of project activities and budget allocation and Grievance mechanism:**

The Snehakunja Trust will set up of a management committee to oversee implementation of the project. This committee will involve representatives from Village Forest Committees, Women's Self-help Groups, opinion leaders in the communities, elected members from Village Panchayat, Taluk Panchayat or Zilla Panchayat, other NGO members, the State Forest Department and scientific institutions like the Center for Ecological Sciences etc.

We expect that this project management committee, together with Snehakunja staff, will monitor the negative impacts of the project (if any) and provide a platform for the local people to express their views and resolve any problems arising out of project activities. At this moment we do not know the exact staff time allocation for the monitoring etc, however, we have allocated US\$ 500 for meetings.