



RAINFOREST TRUST®

Partnership and Funding Request Agreement

Final Report

1. PROJECT SUMMARY			
Project Title: Feasibility study in the tropical fresh water swamps in the Western Ghats, India for creating new conservation reserves			
Reporting Period: June 2018		Name of Organization: Snehakunja Trust	
2. ACTIVITIES			
A. List the project objectives specified in the original proposal and list activities needed to achieve those objectives. <i>What proportion of these activities have been completed? If 100% indicate date, if not please provide additional details in Section 3.</i>			
Project Objective	Activities	% Completed	Date finished
Identifying the critical corridors for declaring the PAs in the Uttara Kannada district of Western Ghats, Karnataka	Mapping the presence of fresh water swamps in the area and delineating the corridors and boundaries	100	December 2017
Biodiversity inventories - flora and fauna surveys to assess the presence and abundance of endemic and RET species	Standard vegetation surveys and all out search for RET species. Species enumeration and population estimation of these RET species	100	March 2018
Stakeholder analysis and community mobilization	Identify list of stakeholders and their interest towards FWS using participatory tools like Venn diagram, focus group discussion and interviews with key informants	100	May 2018
Note on policy interventions with respect to forest resource management and governance – sustainable production methods	Understanding the resource governance processes. Policy analysis and investigation on power asymmetries in relation to effective and inclusive participation of marginalized social groups. This relates to resource user's participation in decision making with gender considerations	100	June 2018

3. OBJECTIVES NOT COMPLETED		
<i>For objectives not completed, please provide additional explanation.</i>		
Project Objective	Activities	Problem Encountered
Meeting with one of the stakeholder, i. e local water management	Stakeholder analysis	These committees are non functional in all the villages that we worked on stakeholder analysis.

committee under watershed development program		However, we found that rejuvenating these committees could be crucial to avoid over extraction of water and water diversion from the FWS. Similarly, it is important to work them to bring sustainable water utilization and implementing the measures like soil moisture conservation units, planting of species.

If additional space is needed please provide additional explanations below (500 words maximum):

4. Narrative

A. *Discuss what was learned during the project?*

Fresh water swamps (FWS) are endangered ecosystems with incredible diversity and unique assemblage of flora and fauna. The Western Ghats forests, along with these FWS, perform important hydrological and watershed functions. Approximately 245 million people live in the peninsular Indian states that receive most of their water supply from rivers originating in the Western Ghats. However, these FWS, occurring in the evergreen and wet evergreen forest zones, and sheltering some of the last relics of ancient vegetation, have been fragmented, degraded or lost. Invasion of exotic species and gradual shrinking of the area is observed. We have seen that they are being converted in to commercial spice orchards and water is being diverted. These important ecosystems and their services are totally ignored. However, now we have consulted the major stakeholders, they were keen in conserving them considering significance of swamps, ecological, ecosystem services especially the source of perennial water, pure air and with the element of social pride. Designating swamps as conservation reserve, undertaking ecological restoration of swamp forests and adjacent catchment forests, promoting sustainable use of water and forest resources are major elements that were proposed in doing so. Large number of endemic and RET species, especially that of amphibians are found excursively in the FWS, which make our argument for declaring PA become much stronger. Since the depression part of the FWS is a tiny patch of less than 2 ha, for PA, we are proposing the entire catchment forest, which is very much important for the existence of FWS. Senior forest officials and former Chairman WG taskforce are very keen in protecting the FWS thus pursuing the PA concept.

Training and skill development to local people especially women on value addition, value chain development and marketing of forest products and agricultural products to ensure their long term participation in conservation and management of the swamps

Involvement of local communities and liaison with other government and non government organizations, local communities, community organizations and public sector is crucial in protecting the FWS.

B. What species were observed during surveys? Which IUCN Critically Endangered, Endangered, or Threatened species occur in the area?

Critically endangered plant species – *Syzygium travancoricum*, *Vateria indica*

Critically endangered amphibian species - *Micrixalus kottigeharensis*, *Nyctibatrachus dattatreyaensis*, *Pseudophilautus amboli*, *Rhacophorus pseudomalabaricus*

Endangered plant species - *Hopea parviflora*

Endangered amphibian species – *Minervarya sahyadris*, *Pedostibes tuberculosus*, *Pseudophilautus wynaadensis*

Endangered primate species - *Macaca silenus*

Threatened plant species - *Dimocarpus longan*

Threatened amphibian species – *Clinotarsus curtipes*, *Micrixalus fuscus*,

Threatened reptiles - *Ophiophagus hannah*

Near threatened bird - *Buceros bicornis*

Vulnerable plant species – *Arenga wightii*, *Gymnacranthera canarica*,

Vulnerable amphibian species - *Indirana diplosticta*, *Micrixalus saxicola*, *Raorchestes chromasynchysi*

C. Is the area suitable to be purchased or be designated as a protected area? If so, how? Please describe why or why not?

The proposed 20 fresh water swamps along with the catchment area are really suitable for designating as a protected area. The area may not support habitat for larger mammals and carnivores, however, higher population of amphibians make it really essential for designating the protected area. In fact this tiny swamp land would provide habitat for endemic, critically endangered and threatened species of amphibians which cannot survive without this ecosystem. Our understanding is that pockets of FWS, say for 100 ha, hosts more than total number of amphibian species and population of Karnataka state. We have already initiated the process of designating the protected area with the senior forest officials like deputy conservator of forests Sirsi and Honnavar, chief conservator of forests, Canara forest circle and principal chief conservator of forests. Several rounds of talks and discussions were held with them. In fact, the principal chief conservator of forests orally admitted the importance of declaring all the FWS as conservation reserves. We have also consulted local communities, former chairman and present members of Western Ghats task force, Karnataka government, were consulted and involved in various stages of project activities. Former chairman of western ghats task force was the one who helped and took lead to declare few conservation reserves in the district during his tenure. Hence, we feel that there is a realistic chance of declaring these FWS as conservation reserves.

We have listed the land that is for sale. Only those land adjacent to the swamp forests that have the potential of converting in to swamps have been considered for this (annex 7).

5. Next steps

What are the proposed next steps? Will you be submitting an application to Rainforest Trust for funding to protect the area?

Follow up of proposals for designating the PA, the procedure involves different steps, at first the boundary has to be described as per the forest department compartment numbers, then the concerned deputy conservator of forests (in our case Sirsi, Honnavar and Karwar deputy conservator of forests) has to send it to chief conservator of forests. This is then submitted to Principal Chief Conservator (wild life) and with his/her approval government would make gazette notification through ministry of environment and climate change.

Due to assembly election and hung assembly after the election delayed the process, however, we are sure that we would certainly succeed in doing so.

We will be submitting Rainforest Trust for funding to protect the area with following major activities;

Ecological restoration - based on the past experience of restoration and swamp categorization, twenty FWS would be selected for further restoration and preservation. Threat assessment studies – in each swamp, information on area, disturbance parameters (encroachment, water diversion, felling, and NTFP collection, information on water perennials, climatic parameters, and soil and water flow) gradual changes if any in terms of species, density and area would be collected. Soil amendments; restore/improve the physical environment before planting the swamp species. Nursery raising and active planting of obligatory swamp species and associated species on mass scale: and a protocol for swamp nurseries would be developed and published in printed form. Connecting degraded swamps and enhancing the existing area of swamps would be considered. Besides, commercially important forest species would be grown at community nurseries, provided to local people and their agronomical knowledge enhanced. Sustainable use of water, establish VFCs and rejuvenate the existing ones. Apart from working with the VFCs Orientation trainings to the front line KFD staff and VFC members: ecological importance, provisioning ecosystem services, need to conserve the swamps and strategy towards such conservation and management aspects would be explained in detail and field visits would be organized to the swamps. Conservation awareness and knowledge about importance of tropical FWS would be created through education/awareness/eco-development camps/competitions for school children and college students. Enhance scientific knowledge about restoration of lesser known habitat – entire process of ecological restoration put in to operation would be scientifically documented, analyzed and reported. Perhaps, no such restoration practice of this precious wetland habitat is available in the tropical forest region, which could serve as an operational guideline for future restoration work. Success of restoration activities would be monitored and evaluated using reference ecosystem, a best standing FWS in the central Western Ghats.

Promote sustainable production methods, local governance and collaborative management - strengthening the capacities of women groups towards value addition and marketing of NTFPs through value chain development, improved processing and marketing for forest resources by providing multi-stakeholder engagement platforms. Develop implementable institutional models for sustainable management of NTFPs focusing forest conservation and forest based sustainable livelihoods. Promote sustainable harvesting practices, in situ and on farm conservation of NTFPs, through participatory processes by involving JFPM (joint forest management program) and women self help groups.

Land purchase – undertake ecological restoration of purchased land, restoring the physical environment by

soil amendments restores the hydrological regimes and finally through active planting of obligatory and associated swamp species. Besides, we assist in developing strategy and management plans for the effective conservation of FWS in entire central Western Ghats. We would develop restoration techniques in the wetland ecosystems, monitor and properly document restoration outcome; restoration success, participatory processes, monitoring and evaluation, lessons regarding failures and mistakes. This area could serve as a place for education for restoration, recovery of threatened swamp species and succession for common people, researchers and forest department.

Including FWS in the other districts of central western ghats. As of now our efforts are confined to the district of Uttara Kannada. However, FWS occur in the neighboring districts like Shivamogga and Chickmagalur, where the status of FWS are not known and conservation activities are not in place. Hence there is a real need to scale up the programs in these districts.

6. ADDITIONAL INFORMATION

Please submit the following additional information to the Conservation Officer at Rainforest Trust with whom you have been corresponding.

- Project photos. Please submit high resolution photos of project activities especially of species, habitat, and photos from camera traps. If the photos are too large to send via email please upload photos to Dropbox or WeTransfer
- Shape or KMZ files. If the survey assessed land feasibility please provide a kmz or shape file of the boundaries of the proposed protected area (attached as annex 12).

