Project Profile

Project Code:	IFGTB / RP 35 / 2005-2008
Project Title:	Status and Floristic Diversity of Sacred Groves - The Only Remnants of Natural Forests in Alappuzha District, Kerala.
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Date of commencement of the project:	01-04-2005
Date of completion of the project:	31. 07. 2008
Total Budget of the project:	2.90 lakhs

Objectives:

1. Record the total number and extent of sacred groves in Alappuzha district.
2. Study the species richness and undertake phytosociological studies.
3. Study the major reasons for deterioration of sacred groves.
4. Formulation of effective conservation strategy.

Summary:

Alappuzha is the smallest (1414 km2 area) district in Kerala with a high population density (1492 persons per km2) and is the only district in the State without natural forests. However, sacred groves generally known varying in size from small patches of few trees to natural vegetation extending to many acres exist in the area and most of the them are owned by ancestral families / temple trusts. The sacred groves of the district attract utmost attention as they are the only remnants of natural forests once present. Since sacred groves represent the glorious past of the luxuriant vegetation and the phyto-diversity of the region, an in-depth assessment of these valuable natural resource pockets was taken up, so as to document them and to serve as a handy tool for any regional biodiversity conservation and planning. Started the project in August 2005. Undertaken field survey in all the six Taluks of the district namely, Cherthala, Ambalappuzha, Karthikappally, Mavelikkara, Chengannur and Kuttanad, covering 91 villages. Enumerated 1128 sacred groves and the total area recorded under these groves was 83.55 ha. Nearly 40 per cent of the groves had sacred pond associated with it. Considerable variations were observed with respect to

extent of the groves and species composition. Area of these groves ranged from 0.003 to 36 acres. Most of the groves are abode of many endemic and rare plant species. A total of 687 plant species belonging to 493 genera and 127 families have been identified from these groves. Detailed phytosociological studies were undertaken in 24 selected and permitted groves. The major tree associations observed included (1) Vateria indica - Hopea ponga, (2) Vateria indica - Holigarna arnottiana, (3) Vateria indica - Hopea ponga - Holigarna arnottiana, (4) Quassia indica - Holigarna arnottiana, (5) Quassia indica - Hopea ponga, (6) Calophyllum calaba - Carallia brachiata, (7) Olea dioica - Aporosa cardiosperma - Lannea coromandelica, (8) Cinnamomum verum - C. malabatrum - Hopea ponga and (9) Artocarpus hirsutus - Hopea ponga - Holigarna arnottiana. Natural regeneration was mainly observed in Artocarpus hirsutus, Caryota urens, Cinnamomum malabatrum, Holigarna arnottiana, Hydnocarpus pentandra, Quassia indica, Strychnos nux-vomica, Vateria indica, Adenanthera pavonina and Calamus rotang. Many sacred groves in the district face threat due to the dense human population and change in socio-economic status. Break up of ancestral joint family system to nuclear families is the major reason for deterioration of these valuable resources. The family member who receives the portion of the land harbouring sacred grove would clear the vegetation by transferring the deities of the grove to selected temples in the State after offering expensive special rituals. Sacred groves are hence destroyed by sacred ways. Sanskritisation and changes in beliefs also attribute to this denudation. People strongly prefer to follow idol worship and for them, most of the tree species or vegetation in the groves are of no economic use. However, there are exceptions where the natural vegetation is preserved understanding its ecological importance. Ulladans , the tribal community of the district who are permitted to access the groves, collect canes and firewood indiscriminately. Overexploitation of the resources by them has lead to its retrogression to a great extent. Removal of litter along with the seeds from the floor has also resulted in retrogression by hindering the natural regeneration process. Exotic weeds namely, Mikania micrantha, Lantana camera and Chromolaena odorata overgrow the native species and play a major role in degradation. Various ways to conserve these valuable resources have also been discussed. Sacred groves require complete protection from human interferences and is the only way to preserve these priceless treasures of nature. The small number of Ulladans settled in the district generally do not maintain their traditional tribal way of life and have become one with the rest of the society. Hence, they can be made aware of the importance of the vegetation system and the rational and sustainable exploitation of the resources. People who clear the grove after transferring the deities to the serpent worship temples for various developmental activities should also be sensitized to avoid further damage. Officials of Forest Department, Research Organizations, NGOs and Educational Institutions should take lead in imparting knowledge on the functional role and importance of sacred groves. They also should help in ecological restoration of the retrogressing sacred groves by way of selecting and planting suitable plant species. The temple authorities can play a major role in conserving the existing sacred groves by not accepting the transfer of deities from these groves to the temple. In general, each sacred grove was found to possess its own unique biological, ecological, cultural and economic dimensions. A detailed database on important sacred groves containing all the vital information including soil type, nutritional status, flora, fauna, plant associations, population structure, cultural and religious aspects and management operations will help in prescribing site specific conservation strategy. Like any growing natural vegetation, sacred groves can also perform the function of carbon sequestration and contribute substantially towards the reversing the process of climate change. Financial supports / rewards to the individuals and trusts maintaining these groves will go a long way in preserving them intact for posterity.