

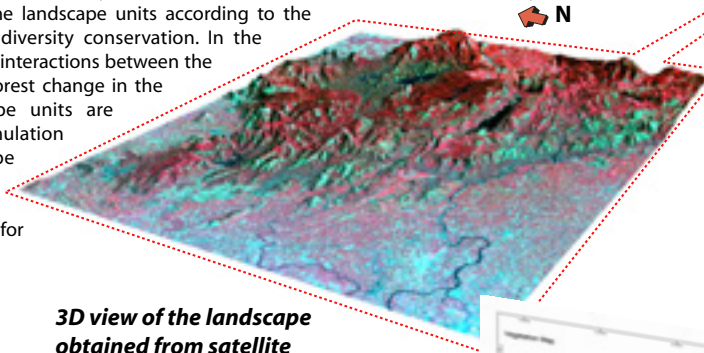
Landscape Analysis for Biodiversity Conservation in the Western Ghats

Objectives

In compliance with International Agreements such as the Convention of Biological Diversity, the National Forest Policy has emphasized the need for more integrative approach in forest management. This includes not only the forest ecosystems but also the biotic and abiotic factors that influence them. The overall objective of the project is to promote the conservation of biodiversity and also the sustainable use of natural resources by forest dependent communities in one of the 25 biodiversity 'hotspots' of the world, with the help of strategic landscape analysis and planning.

This study is being carried out in two phases. The first phase is to describe the different levels of organization of the Western Ghats, and in particular, the ones that allow the study of forest dynamics at landscape level. This is followed by prioritization of the landscape units according to the pertinence of biodiversity conservation. In the second phase, the interactions between the latent drivers of forest change in the selected landscape units are analyzed and simulation models will be developed and tested for usage as tools for decision support.

3D view of the landscape obtained from satellite



View of the landscape



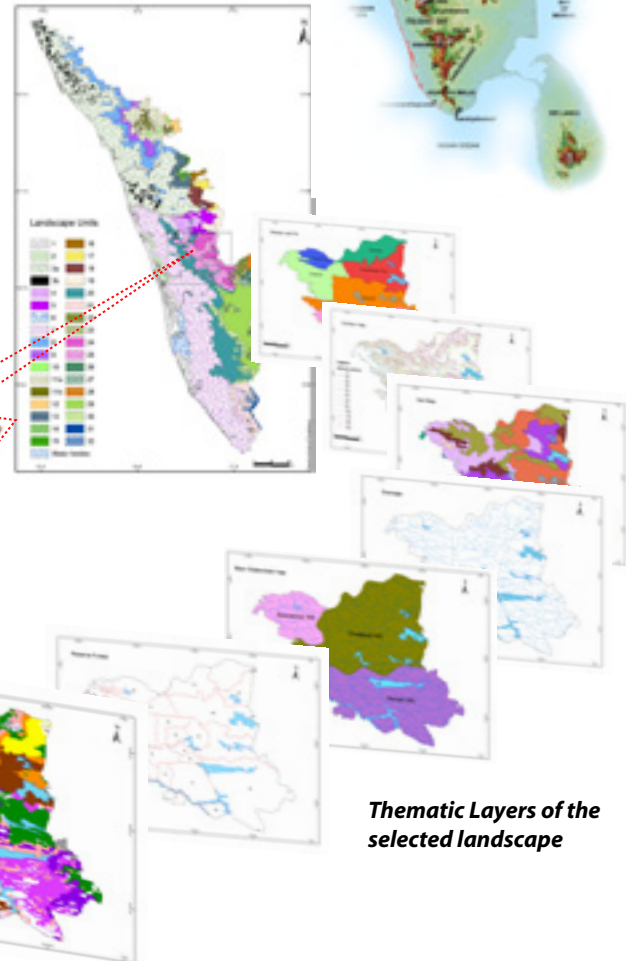
Landscape elements

Partners

- Kerala Forest Department
- Karnataka Forest Department
- Tamil Nadu Forest Department
- Mahatma Gandhi University, Kottayam, Kerala

Funding

- French Institute of Pondicherry
- World Bank under Kerala Forestry Project, Kerala Forest Department



Thematic Layers of the selected landscape

Materials and Methods

The landscape approach adopted here is based on the principles developed in Landscape Ecology that incorporates spatial heterogeneity, its dynamics and influence on ecological processes. In the case of selected landscape, a detailed and comprehensive spatial database will be developed to typify different ecosystems that would form the basis for future strategic planning by the Forest Department. Stakeholders and their influence on the landscape will be identified and studied. A combination of variables that characterize the distinct socio-ecological situations in the landscape and its extent will be identified. By studying the dynamics of these situations, a test simulation model will be designed as decision-making tool to predict the outcome of management interventions.

Results

- Classification of Kerala part of the Western Ghats into different landscape units.
- Identification of ecological zones and socio-economic situations.
- Landscape management plan