

6. THE WESTERN GHATS FORESTRY AND ENVIRONMENT PROJECT

6.1 Background

The announcement of the British Prime Minister in October 1988, that the UK would direct more aid to the wise and sustainable use of forest resources in developing countries prompted the Karnataka Forest Department to approach the UK Overseas Development Administration, (ODA). The Karnataka Forest Department (KFD) already had close linkages with ODA, the State's programme being partly funded by ODA and the World Bank. In addition the support of ODA had been utilized by KFD for a major reforestation programme of Mysore Paper Mills. The ODA Forestry Advisers were aware of the environmental and socio-economic importance of the forests of the Western Ghats, as a result of their visits to these ODA-funded projects.

The "Western Ghats Forestry and Environmental Project" assisted by the ODA is a milestone in the attempt to rehabilitate the forests in the Western Ghats, with the objective of restoring sustainable management in perpetuity.

6.2 The Initial Proposal

The first draft report on Integrated Development of Forests in Western Ghats had been completed by July 1988. This was a straight forward, forestry project with twin objectives of production and conservation. It was very ambitious, seeking to cover 12,000 square kilometres of forest area in the Western Ghats, in five years. The largest component extending over 0.85 million hectares was consolidation of forests through demarcation of the boundaries where these are effaced, followed by control of grazing and providing the areas with fire protection. Planting in open areas, under-planting in degraded areas, promotion of economic species through planting or sowing, with protection in better forests, plantations of bamboo and sandal for the artisans, and the small scale industrial sector accounted for 0.32 million hectares. Two new components suggested were the production of superior quality seedlings by an agency separate from that engaged in the plantation, and the formation of two ex-situ Gene Banks. The project proposed to be implemented over 5 years was to cost Rs2,792 million (USD 93 million).

The Forest Department accustomed to function in relative isolation, had to face several criticisms during the course of implementation of the SF programme in the

State. To come to terms with the criticisms, the Department organised a seminar, on the topic of the Western Ghat project, during March 1989 with representatives of Non-Governmental Organisations, (NGOs) academics, representatives of management and social Institutes, politicians and renowned personalities associated with the rural people of the Western Ghat belt. Surprisingly, there was a consensus on the need for the project and good publicity for the proposal through the media in the country. The question, however, which came up repeatedly was the "compensation" to be accorded to the people who might gain in the long run, but who would lose in the initial stages of implementation of the project. Their support incumbent legally, but in reality absent, had to be brought in if the project was to succeed.

6.3 The Forestry and Environment Project

A revision of the project changed the emphasis and the title became "The Western Ghats Forestry and Environment Project". Appreciating the importance of ecological balance and the environmental stability of the Western Ghats, with its unique flora and fauna, the earlier objective of production, linked with conservation, remained the thrust in the revised document. Rehabilitation of the degraded areas is to be the medium for securing ecological balance at the same time, through increased production, assuring sustainable living standards of people depending on the forests. The uncertainties in management objectives due to conflicting demands are intended to be resolved through a system of zonation. In principle, what was propounded in the National Forest Policy of 1894. (Section 4.1). The zones are grouped into:

- a) Forests in the ecologically sensitive areas, to be protected and conserved for ecological, environmental and bio-diversity benefits. The benefits would accrue locally, nationally and contribute to global bio-diversity conservation;
- b) Economically important timber producing forests, to be regenerated and provided with protection to improve timber production, to benefit the State and the country; and
- c) Forests in the boundary zone and community privilege areas, that are exposed to strong biotic pressure, to be regenerated with species yielding small timber, firewood, fodder and fruits for benefiting the local population. This broad allocation of interests and responsibilities is reflected in the recognition of five management zones (Section 6.3 below).

Therefore the project reflects the view that the problems of degradation of forests can be resolved only by accepting the dependence of the local population on forests, legally entitled or otherwise. The thrust is to involve the local villagers in the management of the forests from the planning stage itself, with a recognised stake in its successful implementation, and in the welfare of the forests.

6.4 Methods of Treatments

Forests in the core zone (Zone 1), include inaccessible forests, core areas of National Parks and Sanctuaries, forests included in the Protection Circle for ecological reasons, and areas presently being worked but which for reasons of ecology or bio-diversity conservation need to be given full protection. Indigenous knowledge, including ethnobotany, will be drawn upon while constituting the zone. Concessions and privileges, where existing, may need to be reallocated to other areas, outside the core zone.

Forests in Zone II (without habitation), and Zone III (with pockets of habitation), will receive similar treatment. The difference being that in the case of Zone II as in case of Zone I, the zonation and operations will solely be decided upon by the Department. In Zones III, IV and V, it will be decided in consultation with the local people.

Depending on the condition of vegetation and existence of regeneration, the project provides for three models of planting in Zones II and III. The difference will be in the intensity of planting; 500 seedlings per hectare in the open areas; 750 seedlings per hectare in the medium density areas; and in the well covered forest with 1000 seedlings per hectare. It should be noted here that in all the three categories of areas, natural regeneration is deficient. Management will be similar in all the three models. The three models together will cover about 6,000 ha per year, in the first two years.

In the Joint Forest Planning and Management (JFPM) areas of Zone IV and V, plantation models provide for intensive planting with 2500 seedlings per hectare. The proportion of species to produce fuelwood, or fodder, green manure and/or minor forest produce will change depending on the requirements of the communities in the locality. These models together with improving bamboo production will account for around 3,000 hectares per year in the first two years. The produce from these plantations are for the benefit of local populations, linked with the responsibility of forest protection.

The basic aim of the project is to conserve the forests in Zone I while conserving and developing resources in

Zones II and III. Works to be undertaken in Zones IV and V seek to meet the local demand and so contain the biotic pressures to its areas, so that they do not spill over and damage the forests in Zones I to III.

The draft project is novel in many ways. While no new organisational structure is contemplated, the project provides support to the existing executive machinery to fulfil the changes in management practices. They require, in particular to the setting up of Joint Forest Planning and Management Teams, the creation of a division for production of quality seedlings, investment for improved fire protection, and livestock management. Links with NGOs are given emphasis and forestry research and training is strengthened. The management orientation will also be geared towards peoples participation in drawing up work plans.

In the final project document, it has been rightly recommended that in formulating the management plans, the departments of Horticulture, Agriculture and Animal Husbandry, the Panchayath leaders, and NGOs functioning in the area should be consulted and involved.

Provision is made for modern management tools such as Geographic Information System and Management Information Systems. The outline suggested for the Forest Research and Training Institute (FORTI) should enable it to be a model autonomous research institute.

The entire project has been rightly looked at, as an experiment in forest management in association with the people living in and around the forests. The project is to be implemented in one forest circle in the Karnataka Western Ghats during the first two years. In the third year the project will be taken up in the second circle while leaving behind a fully functioning resource circle.

6.5 Project Area

The project will be limited to areas receiving not less than 1,000 mm rainfall, to ensure a high return of biomass. In effect, the Dry Deciduous forests are left out of the project.

The Forest Administrative Circle has been accepted as the unit for project implementation. The State has six such circles in the Western Ghat belt and these are from North to South:

- 1) Belgaum Circle
- 2) Canara Circle
- 3) Shimoga Circle
- 4) Hassan (SF) Circle
- 5) Kodagu Circle, and
- 6) Mysore circle.

The consideration that the initial circle should be predominantly in the ghat belt eliminated Belgaum and Hassan Circles. Mysore Circle is eliminated because of absence of regular Evergreen forests. Shimoga has all the components, but the existence of extreme biotic pressures requires a study before project commencement. Kodagu is comparable to Canara, but has extremely complex land tenure arrangements. Hence the Canara Circle with forests extending from the coast to the plains, through the mountain belt, with all the forest types, and some population of forest dwellers has been selected for commencing the project. It is an interesting coincidence that commercial forestry in India commenced in this very same area, nearly two centuries back. Studies for the selection of Zone I areas will be taken up simultaneously in all circles.

The total cost of the project will be Rs 842 million or £23 million, over a six year period. The interest of the State in the programme can be seen from its agreement to remove about 1,900 square kilometres forests from Productive zone to include it in Conservation zone.

6.6 Replicability of the Programme

An economic analysis of the local needs and multi-purpose models worked on short cycles, reveal positive returns at 12 per cent rate of discount. Even in the case of gap planting models, with long cycle species, if the incremental productivity is taken into account, the returns are positive at the presumed 12 percent rate of discount. Of global interest is the suggestion that environmental benefits through CO₂ absorption might amount to Rs3,000 per hectare per annum. The benefits from bio-diversity conservation have not been included in the analysis.

The project document has recognised the inherent strength of the Department to manage the forest scientifically. It seeks to assist the Department to overcome the imbalances that have resulted from the loss of community privileged areas and heavy dependence of the people for fodder and firewood on reserve forests, not legally its responsibilities.

In the foreword to the document, the Principal Chief Conservator of Forests has written that the project emphasis is on process rather than outcomes, on means rather than ends. The project therefore is an effort to develop and implement new management approaches to bring the forests, in due course all the forests in the Western Ghats, back to a sustainable level of use. Success of this innovative project will thus have far greater consequence than the economic benefits which accrue from the limited area initially covered.