

4. THE HISTORICAL DEVELOPMENT OF SUSTAINABLE FOREST MANAGEMENT IN THE KARNATAKA WESTERN GHATS

4.1 Background

The first major step in sustaining the forests in the Western Ghats was the banning of kumri cultivation viz., temporary cultivation in cycles after felling and burning the forests in the 1860s (Someshwar 1991).

In the initial years of gazetting reserve forests, efforts were mainly aimed at consolidation through survey and demarcation. The next subject which received attention was fire protection, through the formation of fire-lines. Some of the privileges accorded to the villagers were linked with their helping the Department to fight fires. Sustainable Forest Management, over major parts in Western Ghats commenced around the beginning of this century. Forests requiring similar treatments were brought under common working circles.

These were mainly:

- Protection working circle, including forests to be conserved for ecological reasons, and inaccessible forests
- Selection felling working circle, including forests of good quality to be worked in cycles of 30 to 40 years. The harvest of mature trees allowed for the increment gain during the period of the cycle. Extraction is followed by tending of the regeneration; and
- Plantation working circle, including areas to be converted to economic tree species through planting, with the full area to be converted during the period of rotation. In the earlier years this system of working was limited mainly to raising teak.

Studies on the growth of tropical Evergreen species were initiated in the forests of Western Ghats in 1937 and by 1940 seven Linear Tree Increment (LTI) plots and eight preservation plots were formed. Similar work was undertaken in Moist Deciduous Forests from 1952 onwards forming twelve LTI plots. Based on the data from these plots, growth increments of 30 major species have been assessed.

4.2 The Working Plans

The forests were to be worked on the basis of working plans prepared for periods of 10 to 15 years. At the end of this period the results were analysed, reviewed, and

revised working plans prepared. Examples from these plans provide an interesting insight into the planning ideas, and the brake kept on the population growth by malaria.

Revanna's working plan for Govardanagiri State forests (1924) states that the entire requirements of timber and fuel of the villagers are generally met from unreserved lands, including in the enclosures and that these areas provide all the pasturage requirement of their cattle (Revanna 1924). It indicates that on account of the existence of district forests in their immediate surroundings, villagers seldom go to the State forest. It also mentions the seriousness of malarial disease in the region.

In the working plan of Bhadravathi Division, it is mentioned that the entire requirements of forest produce of the people in Malnad are confined to small timber and poles for house building, bamboo, firewood, grazing, thatching grass, and wood for agricultural implements. These are amply provided from outside reserved forests. The plan also speaks of depopulation due to malaria (Anonymous 1930).

Muthanna's working plan for Heggadadevana Kote forests in Mysore district (1932), discusses the seriousness of malaria in the region and the subject of meeting the requirements of the people. The plan describes the items permitted to be removed free of charge from the forests and explains that the entire local requirement was being met. Here, however, a condition imposed on the villagers in the region mandates their help to extinguish forest fires and to attend to such forest works as may be assigned for two weeks in a year (Muthanna 1932).

The working plan for the North Mangalore Division 1934 of Davis and Krishnaswamy, indicates that all the requirements of the villagers forest material were met from outside the reserve forest, from unreserved area and wasteland. Exceptions were green leaves and dry humus in the coastal region which were collected from the reserve forests. The plan mentions malaria disease in the ghat belt (Davis and Krishnaswamy 1934).

In Kadambi's working plan for the ghat forests of Shimoga and Sagar divisions (1945), it is mentioned that in the evergreen forest zones, villages are few, and isolated houses are scattered over the area adjoining the State forests. Chief requirements of the people are small timber, poles, and posts for house building and agricultural implements, firewood for heating, cooking and boiling jaggery and green leaves for composts and grazing ground for cattle. These requirements are generally met from the district forests, Soppinabettas and Gomals (grazing grounds). It is only in the case of

villages which form enclosures or where district forests are insufficient to meet all the needs of the cultivators that concessions and rights have been granted to remove the materials from reserved forests. Malaria is again noted as a dreaded disease.

Coelho's revised working plan for the high forest blocks of Kanara Northern division (1956), mentions that the timber requirements of agriculturists are met almost entirely by free grants and that bamboos for agriculture use are also removed free. Firewood is similarly collected freely from dead and fallen trees of "unreserve" species. All areas are open to grazing, except areas under planting and during the period of establishment. The country is reported to be malarious.

Working plan for a portion of the eastern deciduous forests of Coorg (1959) of Somaiah indicates that the needs of the people for forest produce were almost entirely met from lands situated outside the reserves. It describes extensive areas of pessaries (Community privilege area) available for grazing and free removals.

In the revised working plan of Korlahalli for the Mundgod teak pole forests of Kanara eastern division (1960), the requirement of the people is described as grazing, firewood, timber for huts, small houses, cow sheds and agricultural implements, bamboos for fencing and huts, thorns and brushwood for fencing, and dry leaves for mulch. It is indicated that these demands were met under the provision of the Privilege Code. The plan indicates that since 1955, the dreaded malaria had been eradicated.

The working plans cited above cover a period from 1924 to 1960. They include examples from all the areas that make up the Western Ghat belt in Karnataka. The areas include zones receiving rainfall of 1,000 mm to 7,500 mm. In all areas, where common land could not meet the local requirements, they were met from reserve (or State) forests.

It would be interesting to analyse in more detail the changes that have taken place, in the dependence of the people living in or around the reserve forests on these forests as this is the most significant factor in sustainable management of these forests. This can be gleaned from a perusal of the working plans of the earlier decades discussed above.

4.3 Policy Provisions

In Uttara Kannada District a string of firewood depots have been maintained for over six decades by the Department. Firewood is sold at a highly subsidised rate at these depots. This is seen as both a conservation measure to prevent indiscriminate firewood cutting and as a local facility.

In the erstwhile Mysore State, a system of removal of firewood in bullock carts on permits at seigniorage rate was prevalent. In the beginning it was meant to meet the requirements of individual households but in due course it became commercialised. In the absence of dead wood, living materials were removed, and as a result the system was stopped in 1974. In lieu, the Department opened firewood depots for sale on a 'no profit no loss' basis. In 1980, in addition to the Departmental Depots, the Karnataka State Forest Industries Corporation, a Government undertaking, and local Co-operatives were involved and a network of depots were created. In 1974, the provision permitting commercial disposal of timber from some of the individual privilege areas was repealed.

During the 1930s, the Mysore Iron and Steel Works was setup using charcoal as fuel. The charcoal was supplied from the Government forests. In spite of being a Government Company, in 1974 orders were issued to scale down the supply of charcoal and the supply was terminated in 1978.

During the 1970s, a string of National Parks and Sanctuaries were created. Today they cover 5,796 sq kms of forest area in the Karnataka Western Ghat belt (Ministry of Environment and Forests 1987). The core areas of National parks and sanctuaries covering about a third of the area, are excluded from departmental extraction.

In an effort to obviate possibilities of smuggling the sale of standing coupes was terminated in 1978. In lieu, logging through contractors for supply of material to Government Depots was initiated and later, all the logging works were entrusted to the Karnataka State Forest Industries Corporation or recognised societies.

The State Forest Act was amended in 1981 to permit the Government to increase the rate charged for supply of forest raw-materials to industries every two years. This removed the privileges of units set up at a time when industrial use of forest raw-material was considered essential and which were granted long leases at very low rates. Another amendment in 1984 permitted exclusion of eucalyptus and bamboo from industrial supply, for diversion to the rural populations. Rates charged in the latter case were considerably lower than that applicable to industries.

A Forest Development Fund, for the development of forests, was constituted during the early 1970s by the levy of tax on all forest sales. This is a revolving fund available to the Department in addition to its normal budget for developing forests. This accounts for around Rs 60 million per year.

In 1973 when requests for release of forests for cultivation had reached a crescendo, the government surrendered its power to release reserve forests to the Legislature. This, thanks to the multiparty system, stopped the release of forests for expansion of agriculture.

In 1982 clear felling of forests for raising plantations, even in the case of teak, was stopped in the State of Karnataka. Planting was thereafter taken up only in open gaps or in degraded areas. This was accompanied by intensive research resulting in firstly the development of a new system of teak planting with pre-sprouted stumps in poly-bags, and secondly establishing nursery and planting techniques of more than 150 other indigenous species.

Under the Western Ghat Development Programme, funded by the Government of India, forests deficient in regeneration were demarcated for total protection from cattle and fire. This has facilitated the establishment of natural regeneration over vast stretches of forest. In 1987 pending review of working plans after full inspection by a Committee of Conservators, timber extraction from evergreen forests was suspended. The suspension still continues. In 1990 green fellings in other forests were stopped as many working plans had lapsed and their revision was due. Reduction of Departmental exploitation resulted in timber and firewood extraction coming down from three million to one million cubic meters per year in the decade ending 1989 (Principal Chief Conservator 1990).

In spite of these efforts, the problems of removal on headloads and browsing by cattle persists. Damage in the form of the elimination of regeneration and recruitment, and forest fires, is serious. Individual small demands of a small population marginalised to the forest edge make no dent on the vibrant tropical forests but numerous small demands of a burgeoning population, liberated from malaria, have inexorable effects. The only solution is to increase production of fodder, fuelwood etc. to met the needs, insist on stall feeding of cattle or reduce the cattle population to a level the forest can sustain and make the people responsible for their acts. If the forest improves, they should secure a share of the benefit.