

**The Eco Development Project and the Socio-economics of the Fringe  
Area of the Periyar Tiger Reserve: A Concurrent Study**

**Final Report Submitted to the Co-ordinator, KRPLLD**

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## **Preface**

The following pages embody a comprehensive Report on the concurrent study of the Eco Development and the Socio-economics of the Fringe Area of Periyar Tiger Reserve prepared by Rajan Gurukkal, Professor and Director, School of Social Sciences, Mahatma Gandhi University under the auspices of the KRPLLD.

The study is primarily sociological. Socio-economic and ecological complexities are not always accessible by means of quantification, though attempts have been made, wherever possible, to derive quantitative results. A larger number of socio-economic indicators would have been desirable in a study like this. But being an assessment forming part of concurrent monitoring of the last two years' project activities with little likelihood for any immediate results, it precludes chance of identifying quantifiable socio-economic indicators. Since social change being a relatively slow process, a concurrent study like this can only look for qualitative indicators of change in the social relations and institutional processes.

We acknowledge with thanks the help rendered by the officials of the PTR/KFD in general and Vinodkumar Unial IFS, Amit Mallik IFS, Pramod G. Krishnan IFS, and Mr. Sivadas for their help and co-operation. Our thanks are due to Rajasekharan (Economist) and Guruvayurappan (Sociologist), besides Veeramani, Balasubrahmanian, Joju and Sunil for their assistance in processing the data. We should also thank the Range officers and ex-officio secretaries of the EDCs for providing access to the files and minutes besides the conveyance support for reaching out the remote hamlets and their people. We are grateful to the NGIs of the Ecodevelopment Project, such as Sabari, Thankappan, Vikraman, and Anil Kumar for their kind help in the field. We are thankful to the local people and members of the Eco-development Committees at various places for co-operating with the study. Last but not the least we are indebted to our field researchers, Mr. M. Amruth (Ph.D student, School of Social Sciences) and Mr. Joseph Nedumpuram.

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**Director  
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## **Chapter I**

### **Background and Methodology**

Background of the study is the multi-State India Eco-development Project sponsored by IDA/GEF at the Periyar Tiger Reserve in Kerala, one of the seven Protected Areas (PAs) with the central objective of conserving biodiversity in and around PAs over 5 years (1996-97 to 2000-2001). The Village Eco Development Component (VEC) has been the core strategy envisaged under the project and 55% of the Project costs has been allocated to it. The objective of the VEC is to reduce negative interactions of the local people on biodiversity and to increase collaboration of the local people in conservation by:

- i. Conducting participatory Microplanning and providing implementation support;
- ii. Implementing reciprocal commitments that foster alternative livelihoods and resource uses to be financed by a village Eco Development programme and that specify measurable actions by local people to improve conversation;
- iii. Conducting special programme for additional joint forest management, voluntary relocation, and supplemental investments for special needs.<sup>1</sup>

#### **Objectives**

The concurrent study involved an overall assessment of the interface between the India Eco Development Project (IEDP) and the socio-economic life of the Fringe Area people. It is mainly a comparative appraisal of the socio-economic profile of the settlers especially, the most impoverished during the immediate pre-project and post-project phases. The following have been the specific objectives of the study:

- i. To do concurrent monitoring and assessment of the Village Eco Development Component (VEC) of IEDP along the Fringe Area of Periyar Tiger Reserve (PTR) (FAP) due to the Project interventions in general.
- ii. To understand the changes in the social relations and institutional processes in the wake of the implementation of the VEC.
- iii. To look for the indicators if any of the beginnings of people-centred institutions of sustainability and, capability to combat local power structure blocking equitable local development.

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<sup>1</sup> Joint Forest Management and voluntary relocation are not relevant to PTR. For details of objectives see, PIP for India Eco Development Project. 1996

## **Limitations**

- i. There are various factors of the Project impeding the realisation of a few outputs difficult. The first impediment was the unevenness of the EDCs in their experience in VEC activities. The duration of the VEC experience of the EDCs varied from two and half years to two months. This was due to the inception of VEC activities at different times in the target area. Village Eco Development component that is the most vital in the context of socio-economic development began to be implemented only from 1998 onwards. In a few sites it began to be implemented as late as in 2001. The sites are in different stages of implementation.
- ii. Most of the EDCs hardly maintained proper records of activities, procedures and events, for they were given no prior training. Even the maintenance of the minutes of the meetings was inappropriate. The memorised data collected from the office bearers proved to be a jumble of facts without any chronological sequential order. The absence of proper records turned out to be major lacunae for the study.

## **Methodology**

The study owes its methodology to post-positivist reflexive social science. We combined reflexive sociology with critical social theory for evolving a conceptual framework suitable to the context of community forestry, grassroots democracy and participatory planning and empowerment. We have used the linear quantification approach in matters of basic statistical data that preclude the application of social theory. Beyond that the study ceases to be statistical. The study involves consideration of a variety of extra-economic and non-quantifiable variables that help us understand the social relations and processes. As regards the collection of empirical data we followed the participatory rapid appraisal tool (RRA) and extended interviews supplemented by ethno-methodological strategies.

## **Specific RDT**

The objectives of the Rapid Diagnostic Toolkit (RDT) prepared for the study were the following:

- i. To understand the presages or formative events or antecedents in the wake of the constitution of the EDCs under the Eco Development Project.
- ii. To understand the preparation and adoption of Microplans under the VEC, and their implementation procedures.
- iii. To understand the working of the EDCs and their operational experiences.
- iv. To understand the nature of conflicts, level of co-operation, conflict-resolution, collective thinking and corporate strength.

In order to supplement the RRA data generated by means of specific RDT we have used the interview data from the select EDCs belonging to the three categories: Village based, User group based and Professional group based EDCs.

## **Project Area**

### **1. The Fringe Area**

The Fringe Area is defined as the immediate surrounding up to 7 kms. along the PTR border for the convenience of the Project. There is an unavoidable overlap about the impact range, which varies from below one km. to even above ten kms. At certain strategic points along the fringe natural landmarks like rivers and hills separate habitation sites from the PTR and at others it remains almost a geo-ecological continuum. Roughly the total 'Fringe Area' comes to about 285 sq. kms.<sup>1</sup>

### **2. Population**

According to the official records, the PTR accommodates about 2,25,000 people.<sup>2</sup> The population density is approximately 750 per sq. kms, which is almost the state average, and over two and half times more than the District average of Idukki. Of the total population about 2% are tribals, 27% scheduled castes, and the rest the other castes/communities.<sup>3</sup>

#### **Tribals**

##### **i. Tribal Communities**

The different tribal communities in the Fringe Area of PTR are *Mannan*, *Paliya*, *Malayaraya*, *Malapantaram*, *Urali*, and *Ullada*, of which the numeric strength of the last two is marginal.<sup>4</sup> The most populated tribal community is that of the *Mannan* and the least populated *Ullada*. There are 47 *Malapantaram* and 35 *Ullada* families; during 1930's and 40's *Urali* and *Mannan* were the strongest ones. The relatively the most developed among the tribals in the area are the *Malayaraya*-s.

##### **ii. Anthropological Presuppositions**

At the outset, it should be clarified that the term tribe is used in a very general way, for it makes little sense in the strict anthropological context of the ethnic groups enlisted above. All of them are clans divided in to domestic segments of nuclear families living as clustered in settlements. These were either spontaneously evolved or formally established on eviction of people from their original habitation. In the case of

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<sup>1</sup> See 'PTR Wildlife Management Plan, 1986-87 to 1995-96, (Revised) 2000-1 to 2011 -2.'

<sup>2</sup> *Ibid.*

<sup>3</sup> See *Census of India*, 1991. Kerala Paper 3. For detailed studies on *Malapantaram*, *Malayaraya*, and *Mannan* see, L.A. Krishna Iyer, *The Travancore Castes and Tribes*, Vol. I. Trivandrum, 1937. pp. 96 – 116, 161 – 200 and 201 – 225 respectively. For details of human – nature situation prior to the construction of the dam, see A.T. Mackenzie, *History of the Periyar Project*, Govt. of Madras, Madras. 1963. pp. 28ff.

<sup>4</sup> For basic anthropological details about the tribes, see the notes in relevant volumes of Thurston, *Castes and Tribes of Southern India*, New Delhi.

*Malapantaram*, many of the clan members have not as yet adapted completely to the sedentary agrarian livelihood and market oriented subsistence processes. They are not altogether in the hunting/gathering stage either. In fact, there is no tribal group, which is subsisting solely on the PTR biomass.

### iii. Settlements

There are three major settlements of the tribals in the periphery of the PTR. It was during the turn of the fifties that the tribal communities were transplanted from their habitation sites within the PTR to the following Fringe Area sites:

- Labbakkandam (near Kumily, situated on the northern edge of the PTR. the settlement occupies in all about 88.4 ha. jointly for two tribes: *Mannan* and *Paliya*; *Mannan* 60 ha. and *Paliya* 28.4 ha.)
- Vanchivayal (on the western edge within the buffer zone of PTR. There the settlement of the *Urali* tribe occupies about 39.39 ha.)
- Muzhikkal (on the western edge within the buffer zone of PTR. This is a *Malayaraya* settlement occupying about 112 ha.)
- Attathodu (on the south eastern side of PTR and in the Ranni Division. There *Malapantaram* and *Ullata* settlements occupy about 150 ha.)
- Azhuthakkadavu Kalaketty (on the south western side of PTR in the Kottayam Division. This is a settlement of the *Malayaraya*-s occupying about 50 ha.)

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## Chapter II

### The Pre-Project Socio-economic Scenario

This chapter embodies a summary of the assessment based on the data generated in connection with the socio-economic study of the Fringe Area conducted by the School of Social Sciences during 1998.<sup>1</sup> The socio-economic profile outlined here forms the benchmark for the present attempt of comparative assessment.

The target people of the Project, the inhabitants of the Fringe Area, particularly the poor and marginalised like the lower castes and women used to depend on the PTR resources in various ways. They included heavy biomass extraction of non-timber forest products, poaching of wildlife, felling of trees, cultivation of *ganja*, and so forth.<sup>2</sup> Obviously this nonviable kind of dependence on forest products, irrespective of how heavy or light, extensive or limited, and occasional or frequent, was hardly for subsistence purpose of the majority, but primarily for their market benefits supplementing the income. Of course a few who constituted the marginal groups did use the forest biomass for subsistence needs also. This chapter seeks to make an overview of the socio-economic conditions of the Fringe Area population that consisted of tribals, scheduled castes and others, on the eve of the inception of the Project.

#### The Tribal Peoples

We have already mentioned about the tribal peoples of the Fringe Area of the PTR, the *Mannan*, *Paliyan*, *Urali*, *Malayaraya*, *Malapantaram* and *Ullata* in the previous section in their anthropological context. Of these, *Mannan* and *Paliya* tribes were forcibly evicted from their original habitat inside the reserve and resettled at Kumily. They suffered dispossession as a consequence of the construction of the Mullaperiyar dam, which displaced their hamlets and submerged their habitat routes in the reservoir. The resettlement did constrain the tribal people to adapt themselves to the mainstream way of life and seek new livelihood strategies, which was a task almost impossible for the first generation. It continued to be very difficult for the second generation too. The majority of the third generation is detached completely from the forest habitat tradition and mostly accustomed to the market-oriented semi-urban/life.

The *Mannan* and *Paliya* settlements situated at the Labakkantam area of Kumily. Their settlements are called Mannakkuti and Paliyakkuti respectively. Of the total number of households surveyed at Mannakkuti, about 85% of the houses were *kachcha*. Landholding varied between 30% cents to 1 acre. Exchange of fuel-wood collected from the forest, wage-labour and agriculture in cash crops like pepper, coffee and cardamom used to be their main means of subsistence. They depended on forest primarily for fuel-wood and thatching grass that they collected within around 7km radius, both for domestic use and exchange. Some of them used

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<sup>1</sup> 'Periyar Tiger Reserve: Fringe Area Study', School of Social Sciences, Kottayam, 1999

<sup>2</sup> *Ibid.* pp. 21-24.

to do fishing in the lake as a means of subsistence. In that sense the dependence on the forest biomass used to be for both subsistence and supplemental purposes. Initially the fishery resource of the lake was *de facto* monopolised by the Tamil Nadu PWD but later on around 1930s the right of fishing was transferred to the *Mannan* and *Paliya* clans then staying in the forest. Nearly 20 families of the Mannakkuti were practising fishing using cast-nets at the time of the Project implementation. That was their sole source of subsistence. There used to be occasional fishermen from the Mannakkuti who fished infrequently and who had other sources of income.

Of the total households surveyed in the Paliyakkuti settlement about 85% of the dwelling belonged to the *kachcha* category. Women outnumbered men in the settlement. About 80% of their holdings were at a rate below 10 cents. About 10% of them possessed land measuring from 2 to 3 acres and the rest below 1 acre as their holdings. They subsisted on wage labour (mainly forestry operations), fishing and cash crops. Pepper used to be the chief commercial crop they grew. Dependence on forest was mainly for fuel-wood, thatching grass, honey and fish that they collected within an area of about 7 km both for sale and domestic use.

Both *Mannan* and *Paliya* depended on family labour and hence suffered from disguised unemployment. They suffered from seasonal unemployment too. The exploitation of their crops by intermediaries like moneylenders and fowl bidders used to be a major problem that deprived them of fair market price. Almost all home gardens of the tribal hamlets were mortgaged to the moneylenders in the Kumily. Since the interest rates were exorbitantly high this was rarely repaid and the owners could hardly get to know the actual earnings from their home garden. Both the tribes showed very poor literacy rate.

The *Urali* tribe's settlement is situated as an isolated patch of habitation site within the forest ecosystem of the PTR. Of the total household surveyed, about 55% of the dwellings were *pucca* and the rest, of the *kachcha* category. Cash crop agriculture (pepper, coffee and cardamom) used to be the chief means of subsistence for about 90% of them. They resorted to both family labour as well as hired workforce and were not affected by disguised or seasonal unemployment. This tribe showed an economic set up completely oriented to the pressures of market demand. They processed their products exactly as required for the fair price market. The extent of their land holding varied from 1 to 3 acres. The marginal farmers supplemented their income by wage-labour and biomass (fuel-wood and fodder grass) biomass extraction. All of them used to collect fuel-wood and fodder-grass solely for household use. On the whole they used to be the most enterprising among the tribals of the PTR Fringe Area. Some of them did avail themselves of Government loans under developmental schemes. Their literacy showed a rate quite higher compared to those of other tribal settlements.

The *Malayaraya*, another enterprising tribe is settled at different parts along the PTR fringes. Their main settlements are at Thadithodu, Muzhikkal, and Attathodu. Of the total households surveyed in their settlements, about 73% showed

belonging to the *pucca* and the rest to *kachcha* category. Their principal means of subsistence used to be cash crop agriculture, mainly pepper, coffee and cardamom, carried out by family and hired labour. They were found well attuned to the pressures of the market demand. Most of them seemed to be holding land above a minimum of 2 acres. The lesser income group among them subsisted on wage-labour and biomass (fuel-wood and fodder grass) biomass extraction. Most of them did avail themselves of Government loans under the various developmental schemes. Their literacy showed a rate quite higher compared to those of other tribal settlements. Like the *Urali* the *Malayaraya* was also found as a very enterprising tribe in the Fringe Area of the PTR. The Attathodu colony perched on the bank of the river Pampa is the one settlement peopled by the tribes such as *Malapantaram*, *Malayarayar*, *Ullatar* and *Kuravar* who came to about 148 households. In addition to these tribals there were about 68 households of scheduled castes like *Sambavar* and a few *Ezhava* immigrants.

The *Ullata* is sedentary, but too poor a tribe. Of the 68 households surveyed, all of them belonged to the category of huts. They subsisted mainly on wage labour and biomass bio-mass extraction. The *Malapantaram* constituted the most primitive of all in terms of the material conditions of existence. All the 38 houses surveyed belonged to the *kachcha* category, constructed by the Government. Hunting/gathering and biomass exchange used to be their principal means of subsistence. So very few of them were found in the sedentary state while the large majority used to be as long transhumans<sup>1</sup> in the forest. Being nomads, they were reportedly serving the wildlife poachers. The *Malapantaram* and *Ullata* tribes were found relatively more dependent on the PTR resources for their subsistence. Both the tribes foraged NTFPs such as honey, cinnamon, cardamom, and so forth both for consumption and exchange.

### **The Scheduled Castes**

There are about eleven colonies of the scheduled castes of which four are mixed ones either with other castes/communities or with the tribes. The colonies of scheduled caste exclusiveness are Ceylon Colony, Sathram Colony, Ceylon Mount, Kismum Colony, Gavi, Kochupampa, Minar and Mulakkayam Colony. Those Colonies with other castes/community are Kuttikkayam, Mattuppetty, Mulakkayam, Gandhinagar Colony, Rosapukkantam, and Kuzhimavu. Most of these are colonies purposefully created for settling down the various scheduled caste people. There was an onrush of the scheduled caste population along the PTR fringe as a result of land grants in the forested areas. The Gandhi Nagar Colony and Periyar Colony are examples of the newly founded ones in the PTR fringe. They were founded in the late seventies.

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<sup>1</sup> It denotes nomadic life with brief intervals of sedentary character. The term is etymologically linked to the Latin *trans* meaning to travel and *humane* meaning the earth. Transhumance basically denoted nomadic circuit confined to specific geographic limits. For an anthropological appreciation of the practice of transhumance, see, "Transhumance in Western Rajasthan: Trends and Transformations," *Studies in History*, 7, 2, n.s. (1991) pp. 255-278. Here we have used the term to mean nomadic and sedentary life combined.

The colonies of scheduled caste exclusiveness are simple sedentary sites of poor agriculturists with very smallholdings and unskilled workforce. The mixed colonies are economically a little complex and socially heterogeneous. On the whole their economic activities do not involve primary level dependence on forest. They depend on forest for firewood and fodder. Earlier on they used to depend on forest for reed, cane and bamboo with which certain artefacts of day-to-day use were made. Cane seems to have gone scarce obviously due to over exploitation and they seldom work with reed and bamboo these days.

### **Others**

The settlements of other castes and communities are evenly distributed along the Fringe Area. There are about thirty settlements in all, mostly created by the government in response to the post-war depression call to 'Grow More' food. Quite a few of them are indeed, settlements of unauthorised immigrants who infiltrated in the turn of the sixties. In either case the settlements augmented themselves through encroachments. These include ex-service men lands, staff colonies, grazer's settlements and households of encroaching people.

All these settlers are virtually transplanted segments of the mainstream society and hence hardly do they represent any difference in outlook and aspirations when compared to the outer world. The extent of land control varies from household as well as from settlement to settlement, but the pattern of land use remains the same. The economic status of the people is uneven and social set up stratified. The majority of the settlers are small-scale farmers. Some of them are very poor and virtually landless who used to subsist on cattle earlier on when they were allowed grazing right in the forest. They depend on reed (*itta*) also. A few settlements are quite well off. Irrespective of the socio-economic differentiation, all of them use forest resource only to supplement their income.

One item that has been foraged universally by all these settlers is fuel-wood. The biomass extraction varies from the most basic fuel need level to the over-exploitative levels involving cutting of live trees. There is a variety of commercial biomass extraction and poaching leading to the extent of deleterious impact. Urbanised and market oriented, these people seldom realise the ecological importance of the terrain they inhabit. They used to practice the trade of illicit brewing. Their economic activities are market driven and way of life too incompatible to be ecologically sustainable. Naturally their present habitat and the surroundings do not mean anything more than sources of income for them.

Angel Valley constitutes the largest settlement of the mixed social composition. This is the zone with the least number of scheduled caste people. The settlement is right within the PTR. It is situated in the revenue village of Erumeli south, the Erumeli Panchayath, Kanjirappalli Block, Kanjirappalli Taluk and Kottayam District. The people here are settlers mostly from different parts of the Kottayam District. No scheduled tribe family resided in the ward. The land in the settlement area was originally allotted to Ex-service persons and farmers under the 'Grow More Food' Programme during 1948. In 1956-57 settlers from the Kottayam District, particularly Syrian Christians started

occupying the area by purchasing land from the Ex-service personnel quota. In 1964 immigrants encroached a portion of the area. During 1969-70 the area was measured and resurveyed delimiting the forest boundary. In the subsequent year ration card was issued to the settlers. Under the joint initiative of the Malanadu Development Society and the local people a rubberized road running about 16 kms. was constructed. The CARD started its Community Development Programmes and Micro Credit Systems there. Until then the place was called Chekuthanthodu which the MDS renamed as Angel Valley. As the area is within the PTR, the land therein could not be legally granted as private property to any one. Hence the settlers possessed no *pattayam* for the land, despite the staging of continued political struggle.

The caste/community composition of the people showed an overwhelming Christian majority with a strength of about 75% of the total population. The strength of the scheduled caste people came to about 105 ranking next to Christians and the number of other castes like *Ezhava-s*, *Nair-s*, and *Vellala-s* in the descending order formed about 15%. Agriculture was the central occupation as well as the principal source of income. Rubber, cocoa and coconut formed their main crops. Earlier on these settlers were paddy cultivators. Paddy land was converted into tracts of Rubber plantation after 1976. Cocoa was introduced only after 1988. The people were found industrious and inclined to lucrative enterprises. About 20% of them were able to supplement their income through the seasonal roadside business along the pilgrimage route to Sabarimala.

The people were reported to be depending on the forest for the timber required for constructing houses and making furniture, a practice presupposing the prevalence of other illegal modes of forest exploitation. Some people were reported to have been in possession of gun, however few they could be, and reportedly hunting animals and even selling their meat. Trade of illicit brewing used to be another questionable activity.

Another very significant site of mixed social composition is Mukkenpetti. Most of the people who inhabited this area were landowners who migrated as fortune hunters, determined to grab vast tracts of land. Since all their assets at their native places were mostly disposed of, hardly did they have anything else to turn to. Some of them were the rehabilitated soldiers from the British Indian army who were given land during the 'Grow More Food' Programme and others, the usual migrants from Central Travancore. Many of these early settlers went back unable to withstand the hardships of the forest. However, they were soon replaced by the next wave of settlers who bought the land. Often they encroached the forestland too. People were still reported to have been arriving there with money to buy land which could be as little as 5 cents, and wait for the time their neighbours would sell up their possession under some dire necessity.

Poaching used to be a regular phenomenon in the area. A few people reportedly used to regularly go into the forest as trackers in the service of the poachers. Most of the houses here were reportedly built of the timber from the forest. It used to be a persistent practice at that time. They grew cash crops like rubber and pepper. Coffee was grown for household uses alone. Tapioca and other vegetables were also cultivated for household consumption. Being settlers without title deeds, they have been unable to

secure loans from Government agencies or other formal credit institutions. So they were depending upon local moneylenders for agricultural credits. Hence heavy indebtedness was a common feature of the settlement. The high rate of dowry for marrying off their girls was another cause of debt. These often constrain them to sell their holdings. Wild boar and monkeys used to raid their crops.

Most of the people worked on their own land. Only very few landowners used to employ labourers, but that too only seasonally. The poorer people there knew the craft of bamboo or *itta* matting. Sand bed exploitation from the river Azhutha enabled the self appointed authorities like the Panchayath, contractors, middlemen and workers to exact a lot of money. Sabarimala region during the pilgrimage season, used to be a major provider of jobs. The two purposes for which the women depended upon the forest were collection of firewood and grazing.

### **Estate Workforce**

On the Kerala side there are five major privately owned estates of tea, cardamom, coffee, rubber and miscellaneous crops, on the PTR border. Mullayar, Plakkad, Wallardi, Thankamala and Mount. There are two estates owned by the Government viz: the cardamom estates of Pachchakkanam and Gavi lying within about five kilometres surrounding along the border of PTR. They are under the management of Kerala Forest Development Corporation (KFDC). The Pachchakkanam estate also called the Down Town estate is spread out in about 208.5 ha. on the PTR fringe as forest tract linking the Ranni Reserve with the PTR. Of the total 23 estates have workforce attached to them in the form of small mixed settlements with an average strength of 100 to 300 families.

### **The Pre-Project Socio-economic Scenario**

The two socio-economic components relevant to the discussion here are the patterns of subsistence and the nature of forest dependence. We have already reviewed them in the previous sections. The salient features are, however, recapitulated below:

#### **1. Subsistence Pattern**

Almost all the settlers in the forest area have been practising cash crop culture as the main means of subsistence. The crop includes rubber, pepper, cocoa, turmeric, and ginger. Manual labour constituted the next important subsistence base. Cattle keeping used to be another important source of livelihood. Despite the ban on grazing in the PTR, several households subsisted on cattle wealth by using the neighbouring forest as their grazing area.

#### **2. Dependence on the Forest**

Excepting *Malapantaram*, one of the tribes in the PTR no group either in the forest or along the fringe subsisted on food from the forest. There has been no group identified as exclusively biomass-based with respect to the means of subsistence. However, a few women headed families belonging to the *Mannan* and *Paliya* tribes as well as certain scheduled castes subsisted on *channa* leaves which they exchange with

the Tamil settlers. Similarly a few *Mannan* families subsisted solely on fishing in the lake.

Almost all inhabitants in and along the Fringe Area depended on forest for NTFP collection, which either supplement their income or reduce their market dependence.<sup>1</sup> They foraged NTFPs such as honey, cardamom, *telli*, *channa* leaves, pepper, *vayana* bark fodder grass, fuel-wood, cane and reed mainly to add on to their income from other sources, though the share of income derived from the biomass differs from people to people and settlement to settlement. In the case of the majority of dependants the primary character of their forest dependence has been for supplementing their income.

### **The Overall Socio-economic Profile**

The overall socio-economic situation along the Fringe Area at the time of the inception of the Project was of market oriented agriculture. What the Fringe Area was undergoing at that time was not the usual transition from traditional cultivation to agronomy unlike the case of many a similar agro-climatic zone in India. Even tribals were following modern cash-crop farming in the Fringe Area.

The Fringe Area is peopled by unevenly evolved social groups who could be divided broadly into three strata based on the uneven character of socio-economic resourcefulness corresponding to their differing ethno-social status:

a) The stratum of tribals

The tribals and non-tribals have been different from each other in a wide variety of socio-economic terms such as entitlement for and access to resources and technology, competence to economise production and exchange and so forth. Even among tribals who constitute an ensemble of families of uneven development exists a further differentiation in similar terms. *Malapantaram* and *Ullatar* constitute the relatively least developed among them. The *Urali* and *Malayarayar* constitute the most developed and hence more resourceful. The Sabarimala pilgrimage was the most important source of seasonal earning for these competent peoples. They did make use of the seasonal chances through exchange of goods and services with the pilgrims.

As regards the property relations, there have been no formal land tenures in the absence of title deeds. However, there existed informal tenures on crop established through transactional practice by the exploitative intermediaries over the years. The land the tribals

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<sup>1</sup> See, 'PTR Fringe Area Study', *Op.cit.* pp.23-4. There is an assessment of NTFP extraction by the PTR dependants, in T.R. Manoharan, "Economics of the Protected Area s: A Case Study of Periyar Tiger Reserve," Unpublished Ph.D Thesis, Forest Research Institute, Dehra Dun, 1996. For an overview of the NTFP situation, see, Gupta.T & A.Guleria. *Some Economic and Management Aspects of a Non -wood Forest Product in India: Tendu Leaves*. OUP. New Delhi. 1982. Also Kanchan Chopra, "The Value of Non-Timber Forest Products: An Estimation for Tropical Deciduous Forests in India," *Economic Botany*, vol.47, No.3. pp.251-7. J.A. Dixon and P.B. Sherman, *Economics of Protected Areas: A New Look at Benefits and Costs*, London, 1990.

held and the pepper and coffee crops grown were already pawned to the local traders for meagre sums taken as advance. As a result their actual earning from the farm was meagre. Since mostly the same merchant moneylender renewed the mortgage of the home garden every year, the tribals neither did know the actual worth of their farm nor did they have a sense of belonging with the farm. Most members of the hamlet have taken to drinking. Interactive relations were not strong enough to promote education of children or collaboration with fellow-members in cultivation or any other long-term income generating investments. The illicit brewing, an activity common in the recesses of the forest was reportedly leading many to alcoholic addiction and debt traps of exploitative intermediaries. In the set up of unequal exchanges the relation between the tribals and other settlers was naturally exploitative.

b) The stratum of poor settlers, marginal farmers and landless immigrants:

This stratum of the Fringe Area people largely belonged to the lower castes especially the scheduled castes. Their subsistence is amidst land scarcity, unemployment, debt, widespread illiteracy and exploitation.

c) The stratum of rich settlers:

This stratum of the Fringe Area people consists of big agriculturists and traders who would be about 10% of the total population. Sparsely distributed along the PTR boarder, they were found social structurally dominant all over the region.

### **The Problem Scenario**

The PTR has been confronting a series of problems emanating out of the complex scenario of stakeholders' pressure.<sup>1</sup> All the major stakeholders have been in the process of an ongoing enlargement of self-interests, utterly incompatible to the cause of eco-development. People being guided by market forces rather than the wisdom of sustainability, biomass extraction has been amounting to *de facto* removal of the natural resources from the Reserve. The PA encountered the predicament of decay, which necessitated stringent measures of management leading to the imposition of ban on biomass appropriation including even the traditional user claims.

In the process of the PTR's imposition of special restrictions as a Protected Area exerted a variety of impacts both negative and positive on the stakeholders. The primary stakeholders of the sanctuary, the tribals, the marginal groups subsisting on the PA biomass, were the worst affected. They suffered from the misery of dispossession. In the absence of alternative of means of subsistence, they were becoming more and

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<sup>1</sup> For a detailed consideration of the stakeholders' pressure, See, 'PTR Fringe Area Study', *Op.cit.* pp.20 – 26. Details of specific issues are provided for in the official records and reports of the Forest Department. See Bennichen Thomas, "Documentation Report on Eco-Development Project in PTR". Kaler, O.P. Submissions to the Field Director on 27 Sep. '97; 20 Oct. '98; 16 December 1997; Sivadas, S. "Special Officer's Reports," (12 Nov. '97; 19 Nov. '97; 28 Nov. '97; 15 Dec. '97; 30 Dec. '97; 6 Jan. 98; 7 Jan. '98; 13 Jan. '98; 16 Jan. '98 On Sabarimala, PTR.7



more impoverished and falling into the traps of moneylenders and exploitative middlemen. Their relation with the PTR naturally faced deterioration and their capabilities, impairment. The only sedentary tribe that escaped eviction was the *Urali* and it is still in the PTR. It is a fact that the displacement not only disrupted the livelihood strategies, but also upset the historical continuity of the viable human interaction with the forest eco-system.

The most striking negative impacts are the loss of original habitat, traditional ways of life, and the entailing frustration and disillusionment of the marginal communities. The aged among the tribes failed to cop with the new environment got disappointed and almost perished in despair. There is a belief that they owned their decline to *marijuana* addiction. This is unfounded because many of the tribal populations in the world, particularly those in the humid-tropical forests, have a culture of using marijuana without causing any physical or psychological outcomes. It has also been demonstrated that *hempathy* does not cause as many problems as nicotine use or the city life can cause to life and mind.<sup>1</sup> A well-grounded ethnographic understanding of the displaced *Mannan-s* and others is that it was the interaction with the urban life that made their contingent desideratum. *Mannan-s* who mainly subsisted on fishing in the lake for quite sometime had serious consequences in their life. The displacement had not only enforced habitat shift but also imposed cultural disruption, a break with what all they had inherited.<sup>2</sup>

The positive impacts were education, urbanisation, exposure to the outer world etc. As a result of habitat shift some of them became agriculturists and did register a certain level of socio-economic development. *Urali-s*, the least affected by the PA received the most perceptible benefit by being in the sanctuary. The PTR has induced a lot of positive changes. The formation of reservoir improved their access in to the deeper forests through water transport. They became enterprising agriculturists and registered substantial socio-economic development. The tribal settlements of the PTR fringe have not been in isolation today. Almost all of them have been coexisting and interacting with other ethnic as well as caste/religious groups. These settlements have relatively more advanced people in their neighbourhoods situated either in close proximity or interspersed or surrounded. With the result each settlement has been transformed into a heterogeneous socio-economic unit of complex transactions and competitive relations. Even those settlements that are apparently cut off from towns and agrarian countryside now remain very much integrated to the mainstream world. The mainstream society, especially the urban trading elite deployed them for realising the commercial goals around the forest resources. During the course of such exchanges the mainstream socio-economic rationality has penetrated into them.

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<sup>1</sup> See the discussions on *Hempathy* in the special issue of *Ecologist* 1984-86

<sup>2</sup> For discussions of the symbiosis between people and forests, see injustice involved in such dispossessions, see the introduction in Anil Agarwal Ed. *The Price of Forests*. Centre for Science and Environment. New Delhi. 1992. Also the introduction in Malhotra K.C and Mark Poffenberger, eds. *Forest Regeneration Through Community Participation*. Calcutta, 1989. See the relevant articles in Mark Poffenberger & Betsy McGean eds., *Village Voices, and Forest choices*, New Delhi. 1996. pp. 17-55, 259-323

The secondary group of stakeholders consists of the scheduled and other lower castes subsisting on wage labour and NTFPs. Many of them, along with rich farmhouse people, who keep big herds, used to rear cattle by grazing them in the neighbouring forestland. They became deprived of their traditional access right to grazing when the PA rules disallowed it. Prohibition of biomass extraction that has been a long time practice of the tribals as well as the lower caste settlers led them in to conflicts with the forest officials in several areas. Attathodtu is a notable area of such conflicts.

Some of them who used to be small-scale agriculturists suffered from animal raids, especially the raids by elephants, wild boar and sambar. The most persistent and devastating was the raid by the wild boar that causes extensive destruction of crops. The agriculturists, mostly the tribals of Vanchivayal, Mannakkuti, Pliyakkuti, and the lower caste inhabitants of Muzhikkal and Mulakkayam were very badly affected by animal raids. The PTR system would not allow them to check the animals even by scaring them, let alone harming. Further the compensation rules were not adequate to protect the needs of the agriculturists. The destruction done by elephants and leopard alone got compensated and there were no rules of compensation against the loss by other animal raids. The main problem faced by the agriculturists was from the wild boar. The extent and magnitude of loss due to their attack was much greater than the lose incurred due to the instruction of other animals. A rough estimate showed that about 60% of the losses were due to boar raids.

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## Chapter III

### Village Eco Development Initiatives (VEC)

The Eco Development Project is a world level scheme based on the concept of people centred strategies of nature conservation. In India it got implemented initially in certain eight centres of which PTR is one. The national forest conservation policy today is largely based on the perspectives of Eco Development.<sup>1</sup> The basic premise of Eco Development is that local communities will conserve natural resources if their economic stake is clearly defined in the path of sustainable development. At the outset the local communities identify in consultation with the forest officials the economic potential and sustainable quantity of NTFPs extraction. Then they jointly workout business plans by giving primacy to forest conservation and taking into account the carrying capacity of the Protected Area (PA), which is to determine the nature of technology, marketing, finance and other inputs. The local communities are then provided with support systems to establish these enterprises. It is not just cash support alone but all sorts of institutional, structural and technical assistance as well. The Eco Development Scheme lays emphasis on the participation of local communities in conservation. Eco Development Planning for a single or cluster of PAs is based on the potential of the natural resource base, socio-economic and infrastructure needs of the local communities and the capacity of local institutions to participate in conservation activities.<sup>2</sup>

The scope of Eco Development is beyond keeping tribes off the forests by providing other means of subsistence. It stretches into various positive aspects like CPR, grassroots democratisation, corporate capacity building, alternative institutional development, removal of tenurial contradictions and exploitative intermediaries, co-operativising, preservation of local knowledge, ensuring of distributive justice in benefit sharing, checking of further cultural disruption and so on.

#### Formation of Eco Development Committees (EDCs)

The Eco Development Project began to be implemented from December 1996 onwards, with the preliminaries carried out by diverting the funds from other heads and programmes. The financial flow from the Project fund started only in 1998. The central aspect of the Project has been the Village Eco Development Component (VEC) that envisages forming small local bodies of people for community development through

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<sup>1</sup> The principles were formally accepted as part of the National Forest Policy, 1986.

<sup>2</sup> For details see, India Eco Development Project Document, Report No. 14914-IN. Washington, D.C.: Global Environment Co-ordination Division, Environment Department, World Bank. Also see India Eco Development Project Preliminary Draft, Ministry of Forest and Environment, New Delhi. The perspectives are given in Farvar, M. Taghi, and John Morgan. *Eco Development Planning: A Case Study of a Pilot Project in Hamadan, Western Iran*, UNCRD Working Paper, No. 77 -2. Nagoya: United Nations Centre for Regional Development, 1977.

ecological conservation based on clearly spelt out reciprocal commitments. The operation of the Project at the grassroots is vested in the local bodies called the Eco Development Committees (EDCs). So far seventy-two EDCs have been formed along the Fringe area of the PTR. They are broadly of four categories: a) Village EDCs, b) Professional EDCs, c) User group EDCs, and d) SAPP EDCs. The people in the 26 hamlets along the Fringe Area of the PTR are the members of the Village EDCs. There are 58 such Village EDCs in all. The temporary or permanent employees of the Forest Department constitute the members of Professional Group EDCs. There are 4 Professional Group EDCs. Those people who subsist on the biomass of PTR are members of the User Group EDCs. Bringing together the merchants who do business during the Sabarimala season formed the Swamy Ayyappa Punkavana Punarudharana EDCs or SAPP-EDCs. The hamlets and composition of EDCs are given in table 1 below:

**Table 1 EDC Hamlets and the Nature of Social Composition**

	Name of Hamlet	Nature of Hamlet
1.	Mannakkuti	S.T.
2.	<i>Paliyakuti</i>	S.T.
3.	Periyar Colony, Kumily	Mixed
4.	Kollampattada, Kumily	Mixed
5.	Spring Valley, Kumily	Mixed
6.	Mullayar, Kumily	Mixed
7.	Labbakkandam, Kumily	Mixed
8.	Vallakkandam,	Mixed
9.	Ceylon Colony	S.C.
10.	Sathram Colony	S.C.
11.	Kuzhimavu	S.C.& Mixed
12.	Koruthodu	Mixed
13.	Kuttikkayam	S.C. & Mixed
14.	Ezhukumon	Mixed
15.	Muzhikkal	S.T.
16.	Azhuthamunni	Mixed
17.	Thadithodu	Mixed
18.	Mattuppettyputhuval	Mixed
19.	Mukkenpetty	Mixed
20.	Pampa valley	Mixed
21.	Kalaketty	S.T, and Mixed
22.	Mulakayam	S.C.& Mixed
23.	Kismum Colony	S.C.
24.	Attathodu	Mixed
25.	Chottupara	Mixed

A brief outline of the characteristics of EDCs is given in table 2. The details of major activities undertaken by the EDCs and the expenses incurred under various heads are given as Annexure I. The composition and economic enterprise vary from EDC to EDC though

**Table 2 Eco Development Committees in PTR: Summary**

	Particulars	Numbers
1.	Total number of EDCs	72
2.	Village EDCs	58
3.	Professional EDCs	4
4.	User group EDCs	4
5.	SAAPP-EDCs	6
6.	Number of beneficiary families	5540
7.	Total number of landless Families	415
8.	Total number of Landless EDCs*	4
9.	Total number of Women EDCs	1

\*(Mattupetty Estate, KFDC Kochupampa, KFDC Gavi, KFDC Meenar)

most of the professional and User Group EDCs are homogenous to a certain extent. Among the Village EDCs the entire tribal EDCs and the EDCs of plantation labourers and those of the SC population are largely homogenous. The level of heterogeneity is very high in the EDCs of the settler population as indicated in Annexure II. The two SAPP EDCs were the outcome of the efforts to organise the people doing business during the Sabarimala Season at different *tavalam*-s along the traditional route. The corpus fund of the EDC was subsequently redistributed to SAPP members trading at various *tavalam*-s. Hence these 2 EDCs have been excluded from the list of EDCs

### **Project Fund**

The Project Fund got expended mainly for the VEC activities (55% of the total outlay). A sum of Rs.48339240 has been issued as EDC advance by 31-08-2001. But only Rs.39965598 could be adjusted so far. A balance sum to the tune of Rs.8373642 is still pending as unadjusted amount. Details of the expenditure are given in the table 3 below :

**Table 3 Particulars of Expenditures Incurred from the Project Fund**

Particulars	Expenditure up to 31-03-2001	Expenditure from 01-04-01 to 31-08-2001	Total
Project Fund	205.32	45.03	250.35
Credibility fund	13.23	3.33	16.56
Discretionary fund	73.32	59.42	132.74
Total	291.87	107.78	399.65

### **Results of VEC Initiatives**

This section seeks to present a retrospection of the results of the VEC performance under the Project, prior to the efforts of concurrent monitoring and

evaluation. The most encouraging result ascertained from the extant documents, available oral versions and ethnographic data, is that most of the beneficiaries of the VEC belong to the weaker sections of the society. There are altogether 5540 beneficiary families. Out of Rs. 669.5 lakh nearly 47 percent are set aside for women beneficiaries. Similarly in the budgetary share substantial sums have been earmarked for the landless and tribal beneficiaries (table 4).

**Table 4 Details of Beneficiaries of VEC**

Particulars	Village EDCs	Professional EDCs	User group EDCs	SAPP EDCs	Total
Number of beneficiary families	4705	136	293	406	5540
Total Budget (in Lakhs of Rs.)	565.12	17.00	36.63	50.75	669.50
Total budget for community welfare oriented activities	23.02	5.65	2.45	50.75	81.87
Budget for women out of total budget	287.43	1.19	23.20	0	311.82
Number of women beneficiaries	2150	5	147	0	2043
Budget for land less beneficiaries (in Lakhs of Rs.)	48.25	0.50	3.12	0	51.87
Number of landless beneficiaries	386	4	25	0	415
Budget for tribal beneficiaries (in Lakhs of Rs.)	107.75	5.87	1.13	1.25	116.00
Number of tribal beneficiaries	896	47	9	10	962

#### **i. Case Illustrations of Success**

There are several success stories and we cannot recount all of them here in detail. Hence a few select cases are given below by way of illustration:

##### **a) The Case of Mannakkudy**

Mannakkudy in Labbakkandam at Kumily, is a *Mannan* settlement of 60 hectares, situated in the buffer zone of the PTR. The original habitat was at Mlappara, deep inside the forest, from where they were resettled to the present location in 1930-60s.<sup>1</sup> The Labbakkandam colony is within the boundaries of the tiger reserve so residents do not possess title over the land.

Considering the large size of the settlement three EDCs namely Mannakkudy I, Mannakkudy II and Mannakkudy III were formed. The process of EDC formation was initiated in 1997 itself. However, microplanning was completed only in March 1998. The then Eco Development officer, and his supporting staff directly participated in the pilot surveys and rapport building exercises. Members of the hamlets were initially apprehensive

<sup>1</sup> More details are given in the initial sections of the Report. See *infra*, pp. 9-10

about the programme. It was the fear of losing right over forest product that held the tribals back from participation. Different tactics cajoling and threatening were used alike to obtain their 'consent' to participate. Their fear was reasonable as in the pre-implementation phase a lion share of their daily income was obtained from collection and sale of forest products. The land they owned and the pepper and coffee crops were already pawned for a long period for meagre sums to the local traders. As a result their actual earning from farm was meagre. Since mostly the same merchant moneylender renewed the mortgage of the home garden every year, the tribal neither did know the actual worth of their farm nor did they have a sense of belonging with the farm. Most members of the hamlet have taken to drinking. Interactive relations were not strong enough to promote education of children or collaboration with fellow-members in cultivation or any other long-term income generating investments. So dependency on forest for NTFP and reservoir for fish continued to be major source of subsistence.<sup>2</sup> Naturally the rapport building exercises progressed at snail pace.

The activities that the EDCs visualised in the Microplan are the following: a) technical and financial support for agricultural improvement, b) establishment of a centralised store house and marketing facility for pepper, c) training for professions like those of eco-tourist guides and health workers, d) honeybee-keeping and mushroom cultivation, e) institution of crop insurance against crop failure, and f) granting of fishing and NTFP rights inside the PA. Most of these programmes are of general benefit to all the 72 families in the Mannakkudy 1 settlement. The main objectives of the activities were to ensure people's involvement in protecting the identified forest areas within the PA, bring down the extractive dependency on forest and reduction of dependency for fuel wood, *dammer*, cinnamon bark etc. The idea has been to realise these goals by improving the financial / economic status of the people. Hence the improvement of agriculture, reduction of indebtedness, opening up of alternative avenues of income generation and improvement of health status etc. came within the purview of village eco development initiatives. The measures to regulate fishery activity in the reservoir within a sustainable limit and reduce human dependency on forest for small timber and other biomass thus became important items of the agenda.

#### b) The Case of Delegation of Power and Conflict Resolution

A crisis arose in the Mannakkudy hamlet in January 2002 in connection with a land transaction. One of the members of a Mannakkudy EDC sold 10 cents of land out of his property to an outsider in order to settle an old debt of Rs. 48000/-, which was borrowed by his father. The individual who purchased the land belonged neither to the hamlet nor to the Mannan tribe. According to the legal stipulations land inside the settlement that belongs to PTR is non-transferable under Wildlife Protection Act. Further it is a colony of the Mannan tribe, the members of which do not like any outsider coming in to stay with them. Further, it is a potential threat that might lead to land alienation.

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<sup>2</sup> For more details about the pre-project socio-economic scenario see *infra*, pp. 9-10

The alleged transaction was effected as an oral agreement. Immediately the issue was brought to the attention of Eco Development Officer through the EDC of the hamlet. EDO called a meeting of the EDC. The meeting entrusted the executive committee to resolve the problem. The executive committee after holding discussion with concerned parties resolved that the amount of debt that prompted the land transaction will be born by the EDC considering it as a repayable loan awarded to the incumbent's family and thus the transaction was declared null and void. The General body meeting of the EDC has arrived at a resolution that all of them would be vigilant about avoiding such transactions in future. The Forest Department was benefited, for otherwise such issues of land transaction would have constrained them to take action against the alleged and the issue might have taken a different course probably resulting in unrest in the wake of the tribal land issue. As EDC worked the way out of the crisis, members were reassured of their power to resolve a problem. This helped to secure EDC the status of a platform of conflict resolution and rule making. Members of the settlement could keep integrity of their boundaries and they could also be assured of exclusion of outsiders from accessing their land. Delegation of power to the EDC in resolving the conflict set a strong precedent as far as the Forest Department is concerned. This institutional growth through the exercise of delegated powers for conflict resolution shows distinct indicators of accumulation of social capital such as trust, responsibility, unity and collaboration.<sup>1</sup>

#### c) The Case of the Paliyakkudy

The Paliyakkudy tribal hamlet in Labakkandam of Kumily was formed as a result of resettlement of the families residing in the wildlife sanctuary. Before resettlement around 1930 the hamlets were spread in localities such as: Mangala Devi, Methakanam, Poovarasu and Mullakkudi.<sup>1</sup> The settlement is located in the 61.5 hectares of PTR land which they hold with no title deed. So it is impossible for them to raise capital out of the land either by sale of mortgage. The land was used for agriculture in the initial years of the settlement, but subsequently stopped due to crop damage by wild animals. Eventually the dependence on forest became very high. However, pepper that was immune to animal raids continued to be their main agricultural produce. Their income generation was primarily based on the forest resources. The collection of fuel wood from forest for sale at the Kumily town was the major activity of the *Paliya* women for generating income. It was estimated at the time of EDC formation that approximately 260 metric tons of fuel wood was collected annually for their own use and another 700 metric tons for sale. Apart from the fuel wood a number of other forest products such as *channa* leaves, *dammer*, cinnamon barks etc. that come

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<sup>1</sup> See discussion of such aspects of social capital in Robert Putnam, "The Prosperous Community – Social Capital and Public Life" (1993) *The American Prospect* Spring: 27-40 Also see his. 1995. "Bowling Alone: America's Declining Social Capital," *Journal of Democracy*, 6:6578. This has subsequently appeared (2000) as a book with the same title. Boisjoly, J., G. Duncan, and S. Hofferth. (1995). "Access to Social Capital". *Journal of Family Issues* 16(5): 609-31. Edwards, B. and M. Foley. (1997). "Social Capital and the Political Economy of our Discontent". *American Behavioural Scientist* 40(5): 669-78.

<sup>1</sup> For more details see the early section of the Report. *infra*, p.10



under NTFP were collected and sold in the market. Most of these were extracted to a destructive extent.

Though the processes of the formation of EDC at Paliyakkudy began way back in March 1996 and the Microplan prepared in July 1996, it obtained official approval only in March 1998. The 119 families of the Paliyakkudy settlement became members of the EDC. In order to reduce over dependency and the negative impact thereof, the following alternatives of income generation were chalked out in the microplan under the aegis of the EDC: The first was the scheme of technical and financial aid for the improvement of agriculture, mainly pepper that has a prospective market. The establishment of a Fair Price Shop for marketing pepper was another plan. Similarly, establishment of a Fair Price Provision Store, financial aid for paying up debt due to the pawnbrokers, imparting training for working as eco-tourist guide, for bee-keeping, cultivation and marketing of pepper, soil conservation activities in the farm, financial aid for finding alternative employment, and installation of fuel efficient *choolah*-s were also envisaged.

#### d) The Case of Ex-Vayana Bark Collectors EDC

Ex-vayana bark collectors' Eco Development Committee was constituted by bringing together 21 people who were involved in the illegal collection of the *vayana* bark (bark of the cinnamon) from the Protected Area. The collection of the *vayana* bark was undesirable not only since this was against the existing rule that prevented extraction of any material from the PA but also because this involved destructive methods of harvesting. The cinnamon grows mainly in the evergreen forests and the collection of bark through a near complete removal of the trees' bark and in extreme cases even through tree felling is often proved to be highly destructive affecting the forest structure and bio-diversity. It was very difficult to track down and charge the culprits with the meagre manpower of the Forest Department. Most of the culprits were from the land scarce settlements near Kumily. They used to sell their harvest either at a nearby town in Tamil Nadu or to the agents in Kumily. It was lack of the income generation opportunities that drove them to practise this profession in spite of the high risk involved.

This is one of the early attempts to turn the negative dependency to positive dependency where a dialogue was initiated with a group of *vayana* bark collectors who are known to be smugglers of the *vayana* bark and have already been under trial for various charges. At the end of a series of meetings between the Forest Staff and the *vayana* bark collectors have reached mutual understanding that involved following conditions:

1. The *vayana* collectors would withdraw from indulging in all illegal activities including collection of the *vayana* bark.
2. In return PTR authorities would be sympathetic to them and would also try to provide wage labour.
3. Up on studying the cases pending against the *Vayana* collectors they may be considered for vindication

Initially the reformed *vayana* collectors were offered wage labour in the PA management activities. Soon a new scheme of adventurous trekking was planned banking on the vast experience and knowledge of interior forests that the ex-*Vayana* bark collectors had. The trekking trail was to serve dual purpose of adventurous trekking to interior forests and patrolling as part of the PA management. The trail is known popularly as the 'Periyar Tiger Trail'. Only five tourists are taken at a time with equal number of EDC members (ex-*vayana* bark collectors) accompanied by two armed forest protective staff. An agreement with one of the important travel agencies has been reached in order to market this eco-tourism programme. The scheme is a great success in all respects. Regeneration of the cinnamon has increased There are indications of healthy population trends of cinnamon. EDC members have been tremendously helped by EDC formation. Most of them were absolved of former cases. Their self-respect and confidence have improved. Extension of patrolling into the interior forests has decreased illegal activities in the forests. The ex-*vayana* team has been directly responsible for reporting a number of illegal activities in the PA:

**Table 7 Instances of Social Surveillance by the ex-*vayana* Bark Collectors EDC**

Date	Case
04-06-98	3 persons were arrested with <i>vayana</i> bark
05-07-98	1 person was arrested with gun
18-07-98	Gathered information regarding attempt of sandal wood felling
23-07-98	1 person was arrested with two sacks of <i>vayana</i> bark
02-08-98	Detected elephant tusk kept in forest for clandestine removal
14-08-98	Detected illegal trekking and passed on information to the authorities
24-08-98	Arrested two person for illegal felling of sandal wood
27-08-98	Collected information of a poaching attempt
08-09-98	Seized two sacks of <i>vayana</i> bark
03-10-98	Two men were arrested with <i>Vayana</i> bark
08-10-98	Gathered in formation regarding attempt of <i>vayana</i> bark collection
09-10-98	Arrested six person with <i>vayana</i> bark
11-11-98	Seized two sacks of <i>vayana</i> bark
13-11-98	Gathered information regarding poaching
23-11-98	Gathered information regarding illegal firewood collection
17-12-98	Gathered information regarding poaching
28-12-98	Gathered information regarding sandal wood felling
29-12-98	Arrested two persons engaged in sandal wood cutting
03-01-99	Arrested one person collecting <i>vayana</i> bark
05-01-99	Arrested one person for smuggling of <i>vayana</i> bark
18-08-99	Gathered in formation regarding sandal wood felling
05-09-99	Arrested three persons for cutting sandal wood
23-09-99	Gathered information regarding sandal wood felling
13-10-99	Gathered information regarding poaching
28-10-99	Gathered information regarding sandal wood felling

06-02-00	Arrested seven individuals for illegal trekking
08-02-00	Gathered information regarding <i>vayana</i> bark collection
20-02-00	Arrested one person for sandal wood cutting
01-05-00	Arrested two for cutting sandal wood
22-05-00	Arrested one for <i>vayana</i> bark smuggling
15-06-00	Arrested two for sandal wood cutting
20-08-00	Arrested one sandal wood smuggler in an eight day long patrolling
04-10-00	Started daily night patrolling in the sandal wood area
31-12-00	Passed on information regarding sandal wood smuggling
01-05-01	Ceased valuable n timber cut illegally
02-05-01	Arrested two illegal entrants engaged in collection of wild cardamom
29-06-01	Passed over information about the legal custody of sandal wood
17-07-01	Arrested three persons in connection with sandal wood felling
24-07-01	Arrested two persons for smuggling sandal wood
27-07-01	Ceased illegally transported sandal wood

The Ex *vayana* bark collectors EDC is now functioning as a well stabilised village institution. Let us glance through the minutes book of the EDC executive committee. This records transcription of the minutes from 06-09-2001 to 04-03-2002. The Executive and general body meet frequently, the former at least twice a month and the general body on a monthly basis. Reason for the meeting used to be mainly either to consider loan application or to punish the members for not abiding by the group norms. Often new norms and rules are evolved while resolving earlier conflicts and crises. This case of Ex-*vayana* bark EDC clearly illustrates a highly successful example of developing new community identity based on a resource management group in order to facilitate social change.

#### e) The Case of Tribal Trackers EDC

Tribal Trackers EDC was formed by pooling 19 individuals from Mannakkudy and Paliyakkudy. They were selected on the basis of wealth ranking and PRA conducted in their mother EDCs of Mannakkudy and Paliyakkudy. The group had been imparted training and have started offering services as trekking guides within the tourism zone of the PTR. Soon nearly half of them have acquired sponsorship from the nearby resorts and travel agencies. More training and equipment have made them competent trackers and guides in the forests. Now their status has improved immensely. Excerpts from their minutes vouch for the institutional consciousness attained by the EDC.

**Table 8**  
**Excerpts from the Minutes Book (28-10-2000 to 09-03-2001) of Tribal Trackers EDC**

Dates of committee meetings	Nature of meeting	Remarks and Important Decisions made
28-10-2000	First General body meeting of the EDC	19 members, ex-officio secretary and Deputy Director-PTR participated Formation of the EDC and election of the office bearers
29-11-2000	General body	19 members and other office bearers Routine meeting
27-12-2000	Executive committee	Decisions made for changing duties in sponsored positions
15-01-2001	General body	Discussed matters of common interest
27-04-2001	Executive committee	Decisions for providing loan to mother EDCs, loan for purchasing loan at Boat landing
28-04-2001	General body	Routine
15-05-2001	Executive committee	Routine
01-06-2001	Executive committee	Routine
21-06-2001	General body	Assessed activities of EDC sanctions against drinking during duty time and unauthorised absence from duty and was decided
28-06-2001	General body	Fixation of duty time and penalty for dereliction of duty reasserted
17-07-2001	General body	Routine
23-07-2001	General body	Routine
12-08-2001	Executive committee	Routine
25-08-2001	General body	Routine
28-08-2001	General body	Main item in the agenda was declaration of penalty to one of the members who consumed liquor at the EDC office- His half salary for the month was ceased and debited in the common fund
10-09-2001	Executive committee	Routine
20-09-2001	General body	Routine
28-09-2001	Executive committee	Two members who regularly failed to report to duty was suspended for 15 days and two others were also were punished
10-10-2001	General Body	Un authorised absence from duty – a new rule that prior written permission for leave be obtained either

		from chairman or from the secretary
04-11-2001	General Body	Election of office bearers
04-11-2001	General Body	Interface with Sponsors
05-11-2001	Executive committee	Routine
23-11-2001	Executive committee	Routine
28-11-2001	Joint EDC meeting	Routine
30-11-2001	General Body	Decision for 2 day leave per month
14-12-2001	General Body	
23-12-2001	General Body	Decision for paying cash award for the student members for proficiency
03-01-2001	Executive committee	Suspending a member for a month from duty as penalty
05-01-2001	General Body	Warnings against dereliction of duty
07-02-2002	Executive committee	Routine
23-02-2002	General Body	Purchasing of cycles for the members
09-03-2001	Executive committee	Routine

## ii. Case Illustrations of Failures

Two retrospective cases of notable importance are illustrated here to show how certain EDCs failed in their joint enterprises.

### a) The Case of Joint Farming at Sathram Colony

The EDC at Sathram colony tried an experiment with the method of joint farming in the forested land left fallow by its owners for want of capital and labour. The EDC reclaimed about 5.90 acres of productive land by clearing the scrubbed vegetation.<sup>1</sup> The actual land brought under cultivation was only 3.85 acres and there the crops like banana, *colocoesia*, ginger etc., were planted.

<sup>1</sup> The land held by three individuals namely, Kalyani Saravanel (4.5 acres), Dvararaj (40 cents) and Sarala George (1 acre) was formally taken out on lease at the rate of 25% of the total profit.

**Table 5 Sathram EDC Joint Farm: Financial Profile**

Amount Expended in Rs.	Assets in terms of Rs.	Sale Gain in Rs.	Amount to CDF in Rs.	Total Loss in Rs.
300555	5374	11286	13386	283895

The joint farming project failed due to lack of unity, inability to co-operation and partnership, vested interests, selfishness, corruption, disbelief, and distrust that constitute the most essential pre-requisites for any joint activity by a people. As soon as the farming activities were in progress charges of corruption and cheat began to crop us one after the other. The measure of the total land reclaimed for joint farming, the number of banana seedlings procured, the mode of transactions, the ground preparation, fencing, planting activity, watering, protection and what not – the entire initiatives generated controversies, proving the people to be utterly incapable of undertaking any joint enterprise. The EDC thus appointed an inquiry committee and got the charges investigated. The inquiry report is exhaustive covering the entire events in detail, identifying the cases of corruption and booking the culprits. Though the conduct of a formal inquiry and preparation of a reliable report is indicative of certain capacity, the exercise that hardly goes beyond the identification of the culprits shows no sign of emergence of corporate character. The investigators prove to be sincere and committed to the task, but not anyway inspired to think beyond accusation or imputing blame on the culprits. They fail to draw any lesson out of the inquiry and convert their experience into knowledge useful for future. The inquiry report is virtually process documentation about the joint farming venture and its failure, but without experiential learning.

The same people experimented with chips making as a self-employment programme for women from eight families belonging to the ‘C’ category of wealth ranking. A total of Rs. 40000 was released to the group for this purpose from the Eco Development Officer’s discretionary fund. The group started manufacturing chips and selling the produce by hawkers’ method of going from door to door. There was no growth in the circulation of goods due to their poor quality. However, the Unit went on with manufacture despite the shrinking market. Finally due to loss and the inability of women to run the enterprise, the EDC members were advised to take over. Accordingly they arranged for providing training to a team for better manufacture. The Unit began to run in the same way with the understanding of sharing the profit among the worker-proprietors. But the unit did not succeed in making profits and hence came up the demand for salary instead of the profit share. Selling the product and collection of the amount due were under doldrums as EDC members considered hawking and peddling as a low stature employment. They engaged a paid distributor. However, the situation remained unchanged and the capital was fast exhausting. The EDO intervened at this stage and asked the executive committee to take up the manufacture by themselves. Accordingly they appointed a professional chips maker and began running the Unit, but in vain. Finally the unprofitable enterprise was closed down.

**Table 6 Sathram EDC Chips Manufacture Unit: Financial Profile**

Amount Expended in Rs.	Unspent Balance + Bank Interest	Sale Gain in Rs.	Amount to CDF in Rs.	Total Loss in Rs.
36066	4011.25	No Accounts	4011.25	No Accounts

#### The Findings

The people of Satram have not emerged as a group with common interests and goals as yet, despite the constitution of the EDC. The people are largely in the milieu of individual earnings by way of each one's wage. A few who belong to the middle class have only exploitative relations with the poor. The local people largely draw blank about the objectives of Eco Development and the community advantages thereof. They constitute a people who have not undergone any organisational and institutional processes triggering the accumulation of social capital. Joint farming was a premature experiment without adequate measures to build up the essential pre-requisites enabling the people to get them integrated into a group. The diffuse character of the people accounts for their inability to experiential learning.

#### b) The Case of Basket Manufacturing at Mulakkayam

The second case is that of a joint venture by the people of Mulakkayam to develop basket manufacturing as a village handicraft industry. Under the EDC initiatives several educated unemployed men and women were trained in bamboo and reed based handicrafts. The enterprise came up very well, thanks to the several workers of good handicraft talent. However, in the absence of proper networking for marketing the products, the enterprise failed. The artefacts got accumulated without outlets to market. The EDC tried to help the workers to sustain for sometime, but soon the enterprise had to close down mainly due to the lack of marketing facility. There were various other causes linked to the levels of design, execution and management of the enterprise.

This scheme was one among the most celebrated community enterprises formed as part of the VEC. Majority of the members of the locality belonged to Scheduled Caste and they were traditionally basket weavers. Reed collected from the nearby forests used to be the raw material for basket weaving and the final product was sold in the market at Mukkootthara, at a distance of 25 kms. Forest in the locality abounds in reed resources. However, owing to various reasons only a few families were engaged in the basket weaving at the time of the EDC formation in 1998. It was in this context that the Basket weaving and handicraft making were identified as a potential employment generating activity by the EDCs in the locality.

Main objective of the Programme was to ensure fair price for the basket weavers by marketing the baskets made by the EDC members and by avoiding the exploitative intermediaries. Reducing the pressure over the forests by regulating reed harvest was another objective of the Programme. Some 75 families involved in basket weaving were the expected beneficiaries of the scheme. The beneficiaries included members of Kisumam

Moolakkayam I and Moolakkayam II EDCs. A capital of Rs. 250000 was drawn from the project fund of the Moolakkayam I and Moolakkayam II EDCs as the cost of specialised technical support in the year 2000-2001. The Executive committee members of the Moolakkayam I and II supervised the enterprise. Gradually the decision making power got vested with the Chairmen and Secretaries of the Moolakkayam I and II. Mercenary interests slowly crept into the everyday activities of the basket marketing Programme. This along with the lack of sense of belonging to the Programme led to failure of the programme.

The programme was intended to provide fair price to the products of basket weavers. So the baskets were collected from the beneficiaries by paying them a price higher than that of the open market. Since quality was not checked, the EDCs ended up accumulating low poor products purchased at exorbitantly high prices. This set a bad example for other members of the EDC who were otherwise not engaged in the basket weaving. They also began making baskets. Consequently the number of families supplying baskets to the EDC increased from the initial 75 to 150. Sufficient efforts were not put in for selling the collected basket. About 5000 baskets lay rotting in rented go-downs.

The manufacture of reed-handicrafts was another activity promoted along with the programme. This also met with the same fate of the basket marketing experiment. Since no money was paid back to the community development fund, members of the EDC who do not belong to the caste of basket weavers began complaining about money mismanagement. In short, the project proved to be a failure in terms of making profits, providing reinvestment options and in developing collective sense. Moreover, the consequences brought to the surface the caste divide among the local people. Failure of this scheme in both financial and social scales has affected the smooth functioning of the Moolayam I and II EDCs.

#### The Reasons for Failure

The most important reason was the fact that facilitators and EDC failed to set terms of business by assessing risks and market potentials of the product. Secondly, The facilitators were unable to provide technical support and guide them due to their lack of prior knowledge and time. Thirdly, the project was visibly a hurriedly planned one. For instance the amount in this respect was released on 29 of March 2001 the last day for any financial transaction in that financial year. Fourthly, the region being located away from the office of the Project implementers the EDC activities did not receive adequate supervision and guidance from them. Fifthly, the secretaries were not enthusiastic enough to follow up the scheme. Lastly, the lack of awareness about the Project goals and sense of belonging of the EDC, which is evident from the attitudes of the members, was an important reason. Having received the price for their product in advance, the sale of artefacts was not their concern.

#### c) The Case of Power Fencing

Thanks to the Eco Development component, a number of EDCs installed power fences with the financial aid from the project. The power fence consists of metallic conducting wires and a source of DC power with low voltage but high ampere released intermittently.



The wild animals coming into contact with the wire experience shock and get scared away from crossing into the farmland. The source of power is solar panel. The power once generated is stored in a storage cell. The most notable advantage is the easy maintenance aspect of the system, which necessitates no technology, but only care to avoid short-circuit through plants and to keep the correct fluid level. Weeding under the fence is a simple but important task. So after the initial installation (which is expensive) the power fence does not need any high technology to get going. However, the people fail to perform these simple tasks in many a place. It shows that the tasks of transforming the local people into cohesive groups and empowering them for performing collective responsibilities are still at very low ebb.

The failure is mainly due to lack of enthusiasm and initiatives from the side of EDCs for taking up group tasks, obviously due to low social capital. So most of the observations made earlier in the context of organisation as well as institution formation hold good in this case too.

#### d) The Case of FPPS of Mannakkudy

A Fair Price Provision Store (FPPS) was started at Mannakkudy on experimental basis. The idea emerged since members of the settlement had the habit of credit purchasing from the private provision shop owners of Kumily. Some of these shop owners also leased the pepper gardens of the tribals and used to adjust credit purchase in the mortgage deal. The idea of FPPS was mooted to break away this exploitative trap. However, after initial boom in sale it failed to raise working capital as this was locked up in the credit purchase. So FPPS discouraged credit purchase. Soon the customers got back to the old practice of depending on the private provision shops in Kumily. Subsequently the FPPS had to be closed down.

#### Reasons of Failure

The most outstanding reason for the failure was the credit of a huge sum of money advanced to the members, which could not be recovered. The predicament occurred because of lack of experience in managing collective assets and lack of sense of belonging. It is too anachronistic to expect common property sense among proletarianised people with the mind-set of a daily wage-earner. Another reason was their inability to realise the unsteady nature of the market. A sudden fall in pepper price can upset their whole economy. So lack of awareness about the fact their income is not only seasonal but also totally market dependent was yet another reason for the failure. They should have known that cash purchase and credit recovery would be possible only during the four months of pepper harvest. The FPPS banked mainly on these one time income from pepper. A notable factor here is that the profit margin at the FPPS was kept at the lowest possible rate. But even then it did not impress upon the customers who belong to the category of small buyers. It was not possible for the FPPS to expect good purchasers from within the settlement. Being stationed inside the settlement it was not possible to attract potential cash purchasers from outside the hamlet either.

Further, the whole enterprise had no input support about the consumer behaviour in the settlement regarding the tastes, preferences and nature of choice. Having well exposed to all consumerist ways of life the *Mannan* customers have specific taste regarding choice of products. However, since the quantum of sale was low, the shop was unable to stock different brands of many a consumer item.

That the salaries were to be paid to the employees even when the enterprise was running sticky downward made the collapse inevitable. On top of all, there was no proper accounting nor any balancing of cash and credit purchase, for the EDC executive members and officers had no technical know how in the matter.

To sum up, the people are in the milieu of wage earners whose mentality cannot allow them to think beyond individualistic enterprises or sole trading concerns. This solitary nature prevents them from pooling individual labour and capital for a joint enterprise. They know only to act with selfish motives and not for collective gains. Anthropologically they are far away from co-operative labour and no where near individuals capable of collaborating for high productivity enterprises of enhanced *per capita* benefits.<sup>1</sup> They are frozen as proletarians of very low wage and under employment. Even the landed among them remain impoverished in the absence of adequate skills to access and deploy forces of production. Needless to mention that they lack the required level of social capital. With the result they are unable to conduct joint ventures demanding consciousness about collective wellbeing, trust and responsibility, all of which ultimately enhance individual dividend. Ignorant of the advantages of collaborative enterprises, they could not but give up joint venture as a problem. Even after the conduct of an inquiry hardly did they try to draw any lessons out of the big failure, for they were not in the mindset of partnership endeavours. The characteristic inability to do experiential learning and the absence of formal training in and inability to do experiential learning acted as conspicuous reasons for the failure of joint ventures.

## The Results

The results of these interventions were phenomenal. The most striking result was in the cash crop economy as in the case of the *Mannan* tribe. Prior to the formation of EDC, their crop, particularly pepper was mostly sold out to the merchant moneylenders for the meagre sum they advanced. The EDC intervention enabled a formal evading of this exploitative intermediary between pepper and its fair price, which in its turn increased their income from the farm 4 times. As in the case of the *Mannan*-s, the income growth showed

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<sup>1</sup> For features of a contrasting situation, see J.Y. Campbell, R.N. Chattopadhyay, and C. Das. "Income Generation through Joint Forest Management in India: A Case Study of the Participatory Forest Management Project in Nayagram, West Bengal" in M. Victor ed. *Income Generation through Community Forestry*. Proceedings of an International Seminar held in Bangkok, Thailand, October 18-20, 1995. RECOFTC Report 13. Bangkok, Thailand. Also A. Sinha, "Community Initiatives for Sustainable Livelihoods in Natural Forest Regions: Some Reflections on Community Perceptions in the Sal Forest Regions of Singhbhum District in Bihar, India, in M. Victor ed. *Op.cit.* Turton, C. and J. Farrington, "Enhancing Rural Livelihoods through Participatory Watershed Development in India," Natural Resource Perspectives Paper. Overseas Development Institute, 1998

manifold effects such as improvement of the material conditions of the households, hike in the attendance at schools, and considerable reduction of dependence on the forest.

The significant factors to be underlined here are increased earning, relief from indebtedness, sense of belonging to their farm, enhanced self-esteem, confidence etc. that facilitated exchange of money for the acquisition of social, cultural and symbolic forms of capital. Soil and water conservation activities were taken up as part of the Microplan and it enhanced the fertility of the farm to a considerable extent. The EDC activities promoted a sense of corporate existence, collaboration, collective responsibility and trust that are some of the vital forms of social capital.<sup>1</sup> There are indications of corporate strength, collaborative capability, partnership and networking ability. The participation and successful management of group activity, formation of new rules relating to the entry in to the hamlet, collectively restricting the activities of a local bully, revival of the youth club, taking up construction of the houses granted by the Panchayath are such instances.

The EDC has been successful in linking up with NGOs and other development agencies to began many group activities such as mushroom cultivation, vermin composting etc. Some of the activities such as vermin composting have very well caught up. About 100 families are involved in the composting. From a meagre investment of 300 rupees and putting in one's labour each member is able to earn nearly rupees 3500 a month from this activity. This also enables contribution to the collective fund, however, small it is. A local bully was cornered tactfully and collectively beaten up and made to behave with collective zeal under the aegis of EDC. EDC members have already developed multiple affiliations with other organisations and local level institutions and have been successful in channelling benefit flows from these. Interactions with the NGO such as Peermedu Development Society and Kumily Grama Panchayath are examples. This is indicative of ability to successful networking. Another positive sign is linkages with intra-community groups such as village temple committee, women self-help groups and youth club etc. Village temple committee in the Paliyakkudy functions closely with the EDC. Similarly women self-help groups and the youth club of the hamlet have made liaison with EDC in many activities. Youth club that was almost defunct has been now revived by a group of youngsters who could secure EDC's patronage for broadening their activities. The youth club named *Gramavedi* successfully recaptured an almost extinct legacy of traditional dance and singing. The Club has acquired 6 cents of land within the hamlet and has been effective in mobilising voluntary efforts of the members. An notable change has been in the attitude towards education and increase in the student attendance in the school. Now nearly 20 students from the hamlet have joined at the residential tribal schools for higher studies where none had made it before the formation of EDC. The hamlet EDC has bagged last years best EDC award worth Rupees 25000/-. Paliyakkudy EDC has also participated

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<sup>1</sup> See discussion of such aspects of social capital in Robert Putnam, "The Prosperous Community – Social Capital and Public Life" (1993) *The American Prospect* *Op.cit*: 27-40 Also see his. 1995. "Bowling Alone: America's Declining Social Capital," *Op.cit*. Boisjoly, J., G. Duncan, and S. Hofferth. (1995). "Access to Social Capital". *Journal of Family Issues* 16(5): 609-31. Edwards, B. and M. Foley. (1997). "Social Capital and the Political Economy of our Discontent". *American Behavioral Scientist* 40(5): 669-78.

actively and has bagged a number of prizes during the cultural fete held as part of the wildlife week celebrations in 2002.

All these suggest that there has been increased awareness about wildlife protection and reduction in the negative dependency on the forests. Besides, the members have developed strong sense of belonging and community identity. These changes are well admired and welcomed by forest officials, NGOs and members of the EDC.

Social fencing conceived as a strategy of forest conservation has proved to be successful in most localities<sup>1</sup>. EDCs have succeeded in restricting the entry of people in to the forest. In most localities people participate in the patrolling work of the Forest Department. There are incidents of surrendering of unlicensed guns to the Department as a result of pressure from the EDC members. The people of Mannakkuti have imposed sanctions to those involved in the collection of Blank *Dammer* (extraction of which is banned inside the Sanctuary). Activities of the SAPP-EDCs illustrate highly successful instances of participatory PA management in the context of pilgrimage tourism. The Eco Development project has been a great success in this component with the kind of institutional innovations, planning and implementation thereof.

The Project has contributed to some extent for the organisational alteration within Kerala Forest Department in favour of participatory initiatives, despite the fact that it is a conventional Department of Government. Depending on the imagination and involvement of higher authorities new forums, alternate platforms and mechanisms of power devolution are being encouraged.

Some of the well functioning EDCs have been able to raise the confidence of the local people in their collective potential and self-esteem besides imparting a sense of belonging. Some of the EDC members have also entered politics and have become members of local administrative bodies. As a result of the Project initiatives local politics has started changing. There is a visible influence of Eco politics now. The politicians of the local bodies who assemble for the meetings of EDIC get exposed to ecological

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<sup>1</sup> For details of the perspectives, strategies and experiences see L.K. Jha, and P.K. Sen Sarma.. *Forestry for the people*. New Delhi: Ashish Publishing House. 1994. Krishnaswamy, A. "Sustainable Development and Community Forest Management in Bihar, India." *Society and Resources* Vol. 8:339-350. 1994. Sarin, M, "Joint Forest Management in India: Achievements and Unaddressed Challenges," *Unasylva* 26(180):30-36. 1995. Poffenberger, M. B. McGean, and A. Khare. "Communities sustaining India's Forests in the Twenty-First Century," in M. Poffenberger and B. McGean eds. *Village voices, forest choices: Joint Forest Management in India*. Delhi: Oxford University Press. 1996. Chetan Agarwal & Sushil Saigal, *Joint Forest Management in India: A Brief Review*, Spwd, New Delhi. Mimeo. 1996. Singh, R.V. "Participatory Forest Management for Conservation and Sustainable Use of Plant Diversity in India," *Indian Forester*, Dehra Dun, 1996. Campbell, J.Y. "The Power to Control versus the Need to Use: A pragmatic view of Joint Forest Management," *Common Property Resource Digest*, No. 37, March 1996, pp 9-10. S. Corbridge, and S. Jewitt. "From Forest Struggles to Forest Citizens? Joint Forest Management in the Unquiet Woods of India's Jharkhand." *Environment and Planning A* 29:2145-2164. 1997. Chatterji A, *Toward An Ecology of Hope: Community and Joint Forest Management in Orissa*, California: Asia Forest Network, 1998. S.S. Jat tan, & Pratima, "Participatory Forest Management Objectives in India," *Indian Forester*, May, 2001. R.K. Upadhyay, "Policy and Legal Issues Involved in Successful Implementation of Joint Forest Management A Critical Analysis," *Indian Forester*, Dehra Dun, 2001.

perspectives and values. This has served to some extent to educate the politicians in Eco politics. In certain cases the local people could foil politicians' efforts to misappropriate or hijack the EDCs, thanks to the eco-political awareness of the former. Eco Development project has been instrumental in bringing in certain changes in the existing channels of information flow, which in their turn resulted in breaking some of the hierarchies. That the present organisational arrangements require the Ex-officio secretaries to report to two superior authorities (EDO and DFO) other than range officers, is an example.

Capacity development in the innovative diversification of means of subsistence into economically viable enterprises, through collective thinking at the local level is yet another important result of the Project. The activities of the following EDCs vouch for it. Some of the EDCs of Thekkady do rank foremost in making financial benefits. The *Vayana* Bark EDC has achieved a satisfactory level of reinvestment and productive allocative efficiency. Tribal Trackers' EDC is another example of ensured income status. Watchers' EDC also acquired a sustainable income status through co-operative endeavours and diversified enterprises. Thatching Grass and Firewood Collectors' EDC is an example for acquisition of social status for erstwhile illegal forest dependants through user group based responsible biomass extraction under the consensus of the people and the Forest Department officials. The EDCs of intermediaries like the Kollampattata Women EDC of firewood collectors, proved to be economically viable. The Periyar Colony EDC is an example of success achieved by the local people without any productive economic resource base of their own. In the Koruthodu Pampa Valley area the enterprises of EDCs under SAPP have proved to be economically sound and stable.

### **1. Reduction in Forest Dependency**

One of the conditions in the reciprocal commitment agreed upon by the Forest Department and the local people at the time of the constitution of the EDC was reduction of dependence on forest biomass. Situated along the Fringe, the people used to depend on forest biomass as a major source of earning. So reduction in biomass removal presupposed a drastic change in the subsistence pattern and attitude of the people. Normally, such a change would be unlikely from above under the instigation of a Project driven policy. In this case it happened ! The people's attitudinal change preceded the changes at the base. It is true that alternative subsistence strategies were being evolved and empowerment oriented programmes initiated through Microplans. But the attitude of the people shifted in anticipation of the opening up of better alternative means of subsistence. In that sense the attitudinal change was surprising. It appeared that the people very much wanted a shift from the risky and consequential means of living based on the illegal use of forest biomass.

The concurrent study of the working of the Project could muster enough evidences for a considerable reduction in the fringe area people's forest dependency. In certain cases it has come down to near total absence of dependence while mostly it is well within the sustainable limit. The following table indicates the nature of change in the quantity of biomass removal and reduction in terms of change in number of households involved in various activities related to forests.

**Table 9 Change in Forest Resource Utilisation due to Eco Development Project**

EDCs	Beginning of the Project				In 2001 June			
	Fire wood		Thatching Grass	Black <i>dammer</i>	Fire wood		Thatchi ng Grass	Black <i>dammer</i>
	Own use	Sale	Sale	Sale	Own Use	Sale	Sale	Sale
Paliyakkudi	572000	1064880	0	10200	217540	408660	0	0
Mannakkudi 1,2,3	14392000	291200	0	162560	908160	0	0	0
Sathramcolony	463320	170680	231200	360	136080	0	18000	0
Vanchivayal	263200	0	0	122	263200	0	0	45
Ceylon colony	391550	411600	59500	0	144000	194400	57000	0
Moolakkayam 1,2	216150	0	0	0	177870	0	0	0
Kisumam 1,2	352580	0	0	0	332350	0	0	0
Periyar colony	172980	84600	0	0	138290	490	0	0
Mattupetty, Puthuvayal	155400	0	36000	0	117600	0	12000	0
Mattupetty, Estate	278050	0	99840	0	271350	0	32480	0
Fire wood thatching grass collectors	254800	1196900	595000	0	186240	930150	979200	0
Graziers EDC	485850	5000	12480	0	151200	0	5760	0
Meenar	332970	0	0	0	332970	0	0	0
Kochupamba	501600	0	0	0	501600	0	0	0
Gavi	454080	0	0	2000	459360	0	0	1400
Kunsumala	129600	0	1000	0	10080	0	0	0
Spring valley	4800	0	0	0	0	0	0	0
Angel valley 1,2,3	733320	0	0	0	719100	0	0	0
Kuzhimavu-1	346680	50400	0	0	197640	7200	0	0
Kuzhimavu-2	369360	7200	0	0	0	0	0	0
Kuttikkayam	132840	79200	0	0	113400	43200	0	0
Kandangayam	184440	64800	0	0	85860	28800	0	0
Konuthodu	244860	115200	0	0	79500	21600	0	0

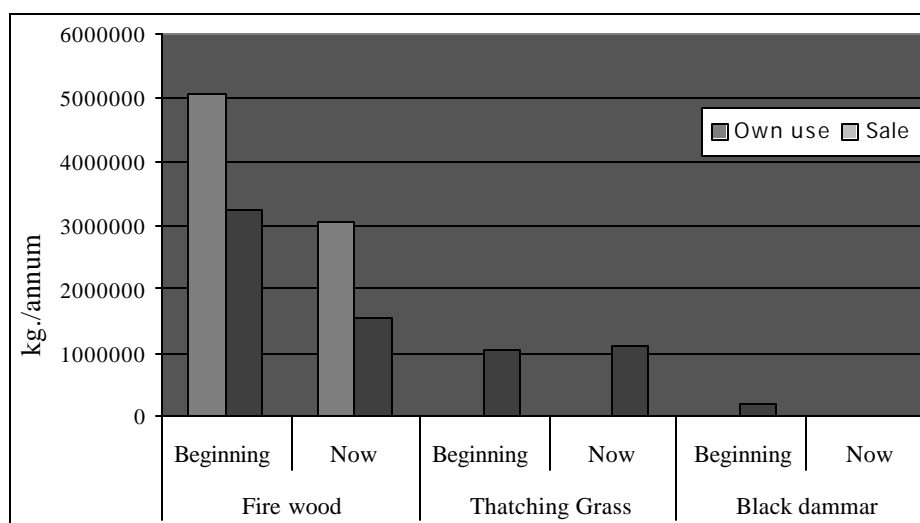
\*figures are in kilograms

Source: participatory appraisals conducted by the Sociologist, Eco Development project, PTR. Detailed break up is provided in the Annexure - III

**Table 10 Estimate of Change in Biomass Removal due to the Project**  
(figures in kg./annum)

	Fire wood		Thatching Grass		Black dammer	
	Beginning	Now	Beginning	Now	Beginning	Now
Own use	5045080	3043850	0	0	0	0
Sale	3224860	1538130	1034020	1104440	173242	45

**Table 11 Change in the Quantum of Biomass Removal**



Of all the positive results of the Reciprocal Commitments, attitudinal changes is the most notable one. It is visible in the form of peoples' participation in forest protection activities. For instance in Thekkady area two members each from five EDCs join in night patrolling with forest staff. Adventure trekking team of the Ex-wyna bark collectors EDC accompanied by the forest guards are active against surreptitious activities in forest (See the table 14)

## **2. Organisational Learning**

The EDC formed the basic unit of the Village Eco Development activities in PTR. The size of the EDC varied from 27 to 100 amounting to an approximate strength of 135 - 500 members. Average strength of EDC membership is roughly 350 individuals. This size is far from manageable by all standards of a group formation. The larger size increases variability within the group making the standard management inputs inadequate to satisfy the heterogeneity of interests of the group members. The theoretical anticipations came true in the cases of most of the EDCs excepting those of the Tribal hamlets. Most of the EDCs failed to identify enterprise oriented group activities due to the reasons mentioned earlier, and if at all any of them identified some enterprises, they failed to implement them successfully. Large group size has been one of the crucial determinants for the miserable failures of the group enterprises quoted as case studies in this report.

This observation was reiterated by some of the project staff and consultants frequently. Of late the implementers recognised this along with the importance of the small groups within the EDCs preferably as women self-help groups. However, the NGOs in the locality have been promoting formation and functioning of the women self-help groups for some time though limiting the activities of the groups solely to micro-financing and group saving. This is an instance of organisational learning that the project implementers learnt from field observation of group behaviour and critical reflections on their observations. It needs to be stressed at this point that the absence of EDO for a fairly longer period of time at a crucial stage of the project implementation, has been a major reason for the late execution of the lesson drawn from the field. Presence of a full time EDO has improved the organisational learning and adaptive management to a significant level. Availability of good leadership to the implementation team is a decisive factor in the better performance of the facilitator group.

The Project activities have provided both the people and the implementing agency with many chances of experiential learning. There are indications of learning and institution building that has taken place among them through trial and error. The making of CDF, the practice of Microplan Revisit, the constitution of *Vanampati* Artists and so forth are examples.

## **3. Social Benefits**

The most significant social benefits associated with EDC are the realisation of the worth of their land and potential for their agricultural wealth. The establishment of the pepper storing/marketing facility marked the most outstanding benefit. Another important benefit was the redemption from indebtedness. This was enabled by the efforts of the Forest department to check the intervention of moneylenders and diffuse their tenurial deceptions.

The most decisive effort right at the inception of the VEC initiatives was the institution of a centralised facility for marketing the major product, pepper, in the Mannakkudy. This was established with the initial capital made available from the Project Fund. The Office



bearers of the EDC and the ex-officio secretary supervised the collection and marketing of the settlers' cash crops. The pawnbrokers / moneylenders organised protests and tried all means to stop this, but in vain. The forest officers took a firm stand and arranged a 'Debt Settlement Meet' under the mediation of the police authorities and politicians. The EDC directly settled the pre-existing debt and accounted the amount as loan advanced to the debtors. Such loans were to be subsequently recovered from the indebted as their earnings from pepper increase. This anticipation came true as the people got fair market price for their crops through the EDC sponsored marketing facility. Each household was made to open a joint account in the name of the main male and female. The price of the pepper marketed was transferred to this joint account. The institution of Fair Price Marketing Facility to pepper enabled most of the families to improve their material comfort by purchasing household articles

As a result of the liberation of the economy from the clutches of exploitative structures and advance of awareness campaigns the people seem to have acquired a certain level of allocative efficiency. A clear indication is some hike in the attendance of students in the tribal schools. This is not to argue that they were able to recognise the importance of education as a site of emancipatory investment for the next generation. In fact, it was not the reflection of the rise of the mind-set of investment, but the feasibility of leaving the children a bit unencumbered by the survival struggle, thanks to the perceptible improvement in the income. The people did begin to develop a sense of belonging to their garden lands and tend to improve the crop with concern. They began spending most of their time cultivating and improving the land with an unprecedented attachment to their material wealth.

An immediate exchange they made of the surplus income was with consumer durable like ornaments, utensils, and furniture. They spent some money on works of minor modification of the houses and for bettering the small shrine in the colony. All these indicate attempts at acquiring the social, cultural and symbolic forms of capital.<sup>1</sup> Other aspects that led to the accumulation of social capital were the rise of their self-esteem through the redemption from the debt trap, alcoholism and criminal cases of forest offences. The EDC as a body and its personnel attained credibility and reliability because of the success in their intervention. The chairman of the EDC acquired great popular support and could soon enter mainstream politics and become a member of the Panchayath. Women empowerment is a remarkable achievement of the Eco Development Project. SHGs have been functioning well in the Fringe Areas of heterogeneous people structured by asymmetrical power relations, where the EDC has not become a corporate body as yet. Women, one of the primary components of the Project's target group, have benefited substantially out of the Project, though conduct of empowerment programmes based on gender sensitisation has been at low ebb.<sup>2</sup>

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<sup>1</sup> See P. Bourdieu, "The Forms of Capital", in J. Richardson, ed. *Handbook of Theory and Research for the Sociology of Education*. Westport, CT: Greenwood Press. 1986

<sup>2</sup> Women centred empowerment initiatives have yielded good results everywhere. This is particularly true in the case of JFM programme. For a discussion, see Sarin, M, "Regenerating India's Forests: Reconciling Gender Equity with Joint Forest Management," *IDS Bulletin* 26:83-91. 1995

The crop raiding by the wild animals have increased affecting women who mostly cultivate plantain and tuber crops such as yams in their home garden. The destruction of the crops by wild boars has become severe. The fearless entry of wild animals to farms is a clear indication of some improvement in the people's attitude towards wildlife conservation. The EDCs have responded to the challenge by introducing sustainable ways of defence like electric fencing and by providing compensation.

#### **4. Accumulation of Social Capital**

The most significant outcome of initiatives under the Village Eco Development Component is accumulation of social capital for the weak and marginalised like the Dalits, other lower castes and women to some extent.<sup>2</sup> The formation of EDCs gave the villagers a local body of their own and the collective enterprises through it gave them mostly for the first time a chance to try and accomplish a corporate entity in themselves. It gave the local people an extraneous compulsion to strive to become a body of common goals and learn how to be participatory in planning local development programmes and executing them. The EDC largely remained outside party politics and not attracted by the local politicians at least in the initial phase when their potential was unknown. So the EDC could provide the poor and marginalised, including women and dalits, chances to acquire new statuses and social ranking by being its members, office bearers and leaders. The availability of opportunities to hold responsible positions of status and rank led to the accumulation of social capital in the poor and marginalised. The newly acquired social capital enhanced their capabilities to enter the public sphere, which in its turn improved their capabilities to development performance. Social capital is defined as structure of relations among the actors, which encourages productive activity. The following qualities are identified with social capital:

- i. Relations of trust
- ii. Reciprocity and exchanges
- iii. Common rules, norms and sanctions

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<sup>2</sup> Social capital is defined as structure of relations among the actors, which encourages productive activity. See P. Bourdieu, P. "The Forms of Capital", in J. Richardson, ed. *Handbook of Theory and Research for the Sociology of Education*. Westport, CT: Greenwood Press. 1986. J.Coleman. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94. (Supplement) S95-S120. 1988. Also his "Social Capital, Human Capital, and Investment in Youth", in Anne C. Peterson and Jeylan T. Mortimer, eds. *Youth Unemployment and Society*. New York: Cambridge University Press. 1994. Putnam, Robert "The Prosperous Community – Social Capital and Public Life" *The American Prospect* Spring: 27-40 1993. Also his "Bowling Alone: America's Declining Social Capital," *Journal of Democracy*, 6: 6578. 1995. This has subsequently appeared as a book with the same title in 2000. Boisjoly, J., G. Duncan, and S. Hofferth, "Access to Social Capital," *Journal of Family Issues* 16(5): 609-31. 1995. Edwards, B and M. Foley, "Social Capital and the Political Economy of our Discontent," *American Behavioral Scientist* 40(5): 669-78. 1997.

#### iv. Connectedness, networks and groups

However, social capital in a society of glaring economic and social inequalities has to be understood in relation to class relations. The social and cultural dimensions of capital are as important as its economic dimension in such societies. These are three resources that become effective in society and their control is enabled through command over symbolic capital. It is the sum total of these resources that empowers a person to perform in the public sphere and carry forward his/her interests. As far as the poor and exploited are concerned the capacity to fight against their conditions of oppression depends on the level of their social capital accumulation. It is assumed that if social capital is high, groups perform better to achieve common economic and political goals. But methods for objective quantification of these parameters are yet to be standardised. The indices developed elsewhere have to be carefully studied for evolving an applicable standard. It is not within the scope of the present study to improvise parameters apposite to local situations due to its analytical load and time consuming nature. Nevertheless, it is possible to identify certain indicators of improved social capital as shown below.

A simple example is that members of the professional group EDCs very often insist that they be identified along with EDC as it helps them to possess a social space more powerful than the little or no space they had in the past. There are many instances where some of the Executive Committee members of the EDCs have been elected to bodies of local self-governance. This way the entry of lower and middle level leaders and activists was triggered by the EDCs experiences. Another significant indicator can be identified by closely observing the functioning of EDCs. Inter-agency collaboration with various local administration bodies has been observed in some EDCs pointing towards the possibilities of further institutional networking. Acquisition of social status and recognition is an important change effected by the Project. The people in the Fringe Area largely suffered the charge of illegal dependence on forest and the entailing notoriety. The Project extricated them from the ignominious predicament by providing a new social status and ranking as EDC members. At least in a few places there are signs of the growth of a healthy public sphere, thanks to the positive impact of the Project in the form of political development based on the collective rights awareness of user-groups and their experiences with joint planning and execution. A rising sense of local unity, if not with the desired CPR enlightenment and full ecological awareness, and the entailing positive shift in the attitude towards forest is another remarkable effect of the Project.

Another perceptible impact is the considerable attitudinal change effected through the awareness development activities and the project familiarisation training that was organised for various EDCs. These programmes helped participants to expose themselves to new ideas and circumstances. Contents of the programmes were aimed at imparting project education and for developing a corporate sense. The EDCs must have led to the accumulation of social capital in terms of self-reinforcing and cumulative nature, manifesting itself in a certain degree of co-operation, expanding trust, strong reciprocity, civic activity and collective well-being. To some extent the empowerment schemes must have led to the accumulation of social capital enabling marginal communities and women

to advance their emancipatory urges too. There is evidence for the rise of a corporate feeling and unity. The Mannan tribe is first to try and restore the traditional practices as a matter of cultural pride. They have restored their traditional social order of hierarchical status and ranking among the heads of clans. As a part of the accumulation of cultural capital this restoration has led to the accumulation of symbolic capital too. Many of the traditional symbols like sticks, knotted strings, and stones that are symbolic of status, ranking, authority and jurisdiction have come back. This is a case of resuscitation of integrity in a community on the verge of total disintegration, individualisation and proletarianisation. Similar resuscitation efforts of the Paliyan tribe are under way. Nevertheless, the social capital accumulation has not been enough for triggering social struggles enabling structural changes in power relations.

The level of accumulation of social capital is an indicator of overall economic development of the region and the financial capability of the individuals. There are indications of income growth as we have already seen, but they do not stem from a well functioning economy and equitable social order. Project has been the major source for both the financial and social support systems. The stability of even these supports depends on the market conditions that give no guarantee of sustainability to returns. If economic surplus and social security are Project induced manifestations, how do we be optimistic about the social and financial sustainability ?

## Concluding Observation

This section embodies the general observations enabled by the study. It involves discussions of the negative aspects and question of socio-economic sustainability of the EDCs. The following negative aspects emerged out of the study:

### Negative Aspects

In several EDCs the officials are deciding things and the EDC members just obey the official stipulations. There people's performance in all matters like awareness, initiative, corporate sense, planning and execution efficiency, and so forth is poor. Officials assert and the consensus is forced up on the members. Many of the Ex-officio secretaries have been found ill equipped even in the art of systematic accounting and bookkeeping. There are many EDCs like Gavi and Kochupampa without proper minutes of the meetings held and issues deliberated. So the practice of documenting the group experiences by using PDR tools for collective learning, hardly makes any sense to them. Several sustainable joint enterprises ensuring local level development and *per capita* income growth had to be given up in the absence of PDR exposures. The two case illustrations given in the study vouch for the lack of institutional learning of the process.

In the absence of process learning most of the Microplans are found as replicated stereotypes incapable of being innovative and appropriate to the sustainable utilisation of local resources. Most of the Microplans are not innovative and appropriate to the diversification of means of subsistence as well as the sustainable utilisation of forest resources. Many EDCs have taken up non-plan activities pointing towards the inadequacy of their Microplans. Initial confusion over the objectives and *modus operandi* of the Eco Development Project continues to affect the successful implementation of VEC in the absence of training in process documentation. Lack of clarity in the nature, scope and purpose of the Project that has resulted in the circulation of a series of misapprehensions among the people could have been averted through experiential learning. Many of the people conditioned in the milieu of financial borrowings have just identified the EDCs as yet another loan disbursing agency. The main issue here is the absence of the practice of collective recording and learning of common experiences in the public sphere.

An important retrospective lesson that we draw from the concurrent study is that the structural-functional mismatch between the Eco Development Project and the implementing agency (KFD) has been fundamental. The KFD is a centralised and top heavy bureaucratic organisation designed to realise forest management through force and policing. The task that the Project reposed on it was the implementation of people-centred and empowerment-oriented programmes of local level sustainable development. The Eco Development Project has never ever been the central concern of the Forest Department. It has always remained as a peripheral matter. With the result the PTR's neighbouring stations and officials seldom gave any importance to the Project. Even within the same Division the Project has been exclusively the PTR staff's concern. Barring a few individual officials, the Department as such has not internalised the values of conservation through social fencing. So by and large the KFD and its large chunk of officials have not been able

to invest their efficiency for the success of the VEC initiatives. Pulled towards mutually opposing directions of protection tasks and VEC services, those enlightened and committed officials also failed to put their efficiency to the best use. So they often failed to articulate the multiple dimensions of the Project. The information of processes documented as part of the concurrent study indicates a sustained conflict among the bureaucratic intention, Project objectives and VEC actions. This irresolvable incompatibility has been the major bottleneck in the working of the Project. Organisational learning by rationalising information production through process documentation is a near impossible task for the KFD officials.

The Fringe Area of PTR is inhabited by heterogeneous societies of structured inequalities. They are as such not amenable to Village Eco Development Initiatives. The social, political and economic perspectives of the Villagers do not agree with those of Eco Development Programmes. The target group of the Project is not a ready-made, ecologically enlightened people. On the contrary they necessitate economic support, ecological education and extensive socio-cultural preparation for understanding the Project objectives and becoming corporate bodies with common goals.

### **The Question of Sustainability**

The concurrent study shows that there is no guarantee about the financial sustainability of the EDCs, for market fluctuation can upset the whole improvement. Income from pepper has been as high as 60 lakhs per year in Mannakkudy for the past three years down to 2000. But during the years 2001-2 due to slump in the market, pepper price came down to one third. The development was like a spurt under the Project initiatives and not as a gradual fall-out of the structural changes from below. The changes in the social power relations were imposed from above. The people are not altogether free from the subservient mind-set of the past. They are yet to be politically conscious, organisationally stable and institutionally rooted. However, these people, largely homogenous and traditional, are amenable to organisation into an integrated body. At the same time it is a fact that they are quite different from their counterparts elsewhere in India, in terms of subsistence pattern, forest dependence, and binding institutional forces. Entrenched by the main stream society and incorporated into its exploitative structure, they do not enjoy an autonomous socio-economic realm unlike the case of forest peoples in other parts of India. This explains why the structure, composition and working of EDCs are relatively fluid and unstable leaving little hope for sustainability as distinguished from the Forest Protection Committees of north India.<sup>1</sup>

The EDC is more a site of contesting individuals than a cohesive body of common goals in areas of mixed social composition, for the uneven development, conflicting interests and competitive power relations of the people preclude the possibility of establishing stable bodies of corporate character. It requires enormous socio-political

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<sup>1</sup> For a contrast see discussions in Pathan R.S. Aral N.J. Poffenberger. M. *Forest Protection Committees in Gujarat*. New Delhi. 1990. Also, Jewitt, S.L., "Voluntary and 'official' Forest Protection Committees in Bihar: Solutions to India's deforestation?" *Journal of Biogeography* 22:1003-1021. 1995.

preparations of the people to enable them to form an integrated body with common objectives and a new social attitude.<sup>1</sup>

No new social attitude is transplanted easily and in fact, it evolves in response to the particular circumstances. In the name of the transplant it is this process that can be initiated under institutional and organisational support. From the concurrent study we have observed indications of institutional evolving of the EDCs through the process of co-existence and interaction with the social power relations, party politics and bodies of local governance. In certain places the process helped qualitative improvement in local party politics under the influence of ecological awareness and institutional development of the EDC through conditions of social capital accumulation. The new attitude is getting rooted in several places. Thus there are some indications of social sustainability. But there are no indications of financial sustainability of the VEC Microplan Strategies. Excepting in a few places, the consolidation of the EDCs and user-groups into corporate bodies has a long way to go. In homogenous communities corporate bodies and user-groups can take roots quickly.

### **A Long Process**

The kind of socio-economic transformation that the Project visualises through Village Eco Development involves the shifting of market friendly individuals into an eco-friendly society. This is a complex process of converting a group of competing and conflicting individuals of an exploitative set up into a co-operative and collaborative society. For realising it, mere organisations and institutions alone will not do. It requires reconstitution of the urbanised and individualised mind-set of people in to that of the environmentalist and communitarian worldview. The five-year term is not enough for all these. It is a time consuming process and needs sustained engagement by a team of committed facilitators capable of acting with insights drawn from social process research and reflexive sociology. The Urali-s living inside the sanctuary on an individualised agrarian economy but without the traditional institutions and practices impaired altogether, have become an integrated community to a certain extent. Mannan tribe has succeeded in becoming an integrated community with the traditional practices restored as a matter of cultural pride. The Paliyan tribe has also undergone some changes. These cases of resuscitation of integrity among the tribals on the verge of total disintegration, individualisation and proletarianisation apart, the social capital accumulation has not been enough for triggering social struggles enabling structural changes in power relations.

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<sup>1</sup> It is important to draw lessons from sites of success. See discussions in Hobley, M. and K. Shah., *What Makes a Local Organisation Robust? Evidence from Nepal and India*. London: Overseas Development Institute. 1996. Agrawal, A. and G. Yadama, "How Do Local Institutions Mediate Market and Population Pressures on Resources? Forest Panchayaths in Kumaon, India," *Development and Change* 28: 435-465. 1997. Sarin, M. "From Conflict to Collaboration: Institutional Issues in Community Management," in M. Poffenberger and B. McGean eds. *Village Voices, Forest Choices: Joint Forest Management in India*. Delhi:

Village Eco Development programmes seeking to provide a greater voice to the marginalised and strengthen the local civil society by encouraging empowerment oriented training and research have served the cause of social transformation to a certain extent. A full-fledged transformation is not possible in a very short period. In five years the preliminaries of laying the foundation of a community of common goals could be done through a series of participatory exercises such as focus group discussions, designing of ecologically sustainable micro plans and joint action. The concurrent study of EDC activities and Microplans show that the Project has just started integrating and empowering the weaker sections and women against exploitative power relations. But the local power politics is trying to contain them. Negotiating and confronting the local power relations, the EDCs are slowly learning to stand on their own legs. It is a long process of trial and error learning. They have to learn how to record their experiences and draw lessons out of them. The EDCs have to be trained in process documentation, an activity that has just started. They need Social Learning through process research under the guidance of social scientists who are being incessantly refreshed and updated by theories in Reflexive Sociology. This would mean that the self-sustainable implementation of the programmes necessitates a close collaborative support by social scientists for advising strategies, monitoring development and assessing achievements.

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### Annexure – I

Nature of forest dependency	Number of Families					
	1996-97		1998-99		1999-00	
	Own use	Sale	Own use	Sale	Own use	Sale
Fuel wood	110	87	88	64	73	49
Angling	43	43	37	37	27	27
Wild honey	78	78	63	63	31	31
Channa leaves	0	32	0	5	0	5
Black dammar	0	24	0	3	0	0

### Change in Forest Dependency in Various Village EDCs

Paliyakkudy  
Mannakkudy 1,2,3

Nature of forest dependency	Number of Families					
	1996-97		1998-99		1999-00	
	Own use	Sale	Own use	Sale	Own use	Sale
Fuel wood	244	13	247	2	264	0
Fishing	60	128	58	112	65	79
Wild Honey	0	50	0	50	1	18
Poles	0	9	0	0	0	3
Black dammar	0	128	0	0	0	0

Ceylon colony

Nature of forest dependency	Number of Families					
	1996-97		1998-99		1999-00	
	Own use	Sale	Own use	Sale	Own use	Sale
Fuel wood	41	35	41	14	49	9
Thatching grass	36	3	28	0	19	0
MFPs	23	23	28	0	0	0
Poles	36	0	27	0	27	0
Fodder grass	7	0	5	0	0	0

Moolakkayam 1,2

Nature of forest dependency	Number of Families					
	1997		1999		2000	
	Own use	Sale	Own use	Sale	Own use	Sale
Fuel wood	131	0	121	0	0	0
Fodder	40	0	35	0	0	0
Timber	0	14	0	0	0	0

Poles	7	0	1	0	0	0
Fish	23	0	19	0	0	0
Reeds	3	61	3	44	0	0
Cane	0	41	0	22	0	0
Boot legging	21	21	16	16	0	0

Sathram colony

Nature of forest dependency	Number of Families					
	1997-98		1998-99		1999-00	
	Own use	Sale	Own use	Sale	Own use	Sale
Fuel wood	98	17	92	0	81	0
Thatching grass	60	21	34	0	18	0
Cinnamon bark	0	63	0	0	0	4
Poles	67	23	36	0	19	0
Black dammer	0	18	0	0	0	0
Reeds	59	20	35	0	19	0
Hunting	7	0	0	0	1	0

Vanchivayal tribal hamlet

Nature of forest dependency	Number of Families					
	1997-98		1998-99		1999-00	
	Own use	Sale	Own use	Sale	Own use	Sale
Fuel wood	47	0	47	0	47	0
MFP	34	11	17	4	20	0
Black dammer	34	9	15	7	9	0
Fishery	23	0	24	0	24	0
Hunting	33	0	8	0	0	0

Kisumum colony 1,2

Nature of forest dependency	Number of Families					
	1997		1999		2000	
	Own use	Sale	Own use	Sale	Own use	Sale
Fuel wood collection	122	0	115	0	0	0
Fodder grass collection	53	0	47	0	0	0
Timber collection	0	13	0	0	0	0
Pole collection	57	52	0	0	0	0
Fishing	48	0	48	0	0	0
Reeds	32	50	22	28	0	0
Cane	0	14	0	9	0	0
Illicit liquoring	6	6	3	3	0	0

Mattupptty Estate

Nature of dependency on forest	Number of Families			
	1998		2000	
	Own use	Sale	Own use	Sale
Fuel wood	83	0	81	0
Thatching grass	30	0	29	0
Reed	69	0	69	0
Pole	41	0	44	0
Fodder grass	26	0	29	0

Mattupetty Puthuval

Nature of forest dependency	Number of Families			
	1998		2000	
	Own use	Sale	Own use	Sale
Fuel wood	37	0	28	0
Thatching grass	12	0	8	0
Reeds	6	0	1	0
Jungle poles	14	0	9	0
Fodder grass	16	0	15	0

Angel valley 1,2,3,

Nature of forest dependency	Number of Families			
	1998		2000	
	Own use	Sale	Own use	Sale
Fuel wood	194	0	170	0
Fodder	158	0	129	0
Timber	129	129	1	1
Poles	98	0	71	0
Sand mining	0	114	0	39
Reeds	82	0	55	28
Cane	30	0	6	9
Fishery	8	0	37	0

Graziers EDC

Nature of dependency on forest	Number of Families			
	1998		2000	
	Own use	Sale	Own use	Sale
Fuel wood	77	2	58	5
Thatching grass	78	0	36	0
Poles	78	0	7	0

Periyar colony

	Number of Families			
	1998		2000	
	Own use	Sale	Own use	Sale
Fuel wood collection	31	15	30	1

**Annexure II**

Means of Living and average size of land holding of the house holds in EDCs

**Summary Statistics of the EDCs Composition**

Sl. No	Name of EDC	Social group	Number of families	Average size of landholding	Means of living
1.	Mannakudy 1	ST	76	Average 75 cents Range from 10 cents to 4 acres	Subsistence Farming>Fishing>Forest Dept. Wage Labour
2.	Mannakudy 2	ST	89	75 cents (10 cents – 4 acres)	Subsistence Farming>Fishing>Forest Dept. Wage Labour
3.	Mannakudy 3	ST	101	75 cents (10 cents – 4 acres)	Subsistence Farming>Fishing>Forest Dept. Wage Labour
4.	Paliyakudy	ST	119	35 cents	Subsistence Farming>Collection of Forest produce>Misc. Wage Labour
5.	Vanchivayal	ST	47	56 cents	Subsistence Farming> Collection of Forest Produce
6.	Kuttikkayam	SC & others	58	75 cents	Subsistence Farming>Misc. Wage Labour>Reed Work
7.	Moolakkayam 1	SC	73	60 cents 5 cents (60 %) - 2 acres	Subsistence Farming>Reed Work>Misc. Wage Labour
8.	Moolakkayam 2	SC	71	60 cents 5 cents (60 %) - 2 acres	Subsistence Farming>Reed Work>Misc. Wage Labour
9.	Nampupara	ST	73	2 acres 50 cents (20%) - 25 acres	Subsistence Farming>Govt. Employment>Sabarimala Season Business>Misc. Wage Labour>Collection of Forest Produce
10.	Moozhikkal	ST	98	2 acres 50 cents	Subsistence Farming>Govt. Employment>Sabarimala Season

Sl. No	Name of EDC	Social group	Number of families	Average size of landholding	Means of living
				(20%) - 25 acres	Business>Misc. Wage Labour>Collection of Forest Produce
11.	Thadithodu	ST	47	2 acres 50 cents (20%) - 25 acres	Subsistence Farming>Govt. Employment>Sabarimala Season Business>Misc. Wage Labour>Collection of Forest Produce
12.	Ezhukumon 1	General	81	1 acre 50 cents (20%) - 5 acres	Subsistence Farming>Misc. Wage Labour>Sabarimala Seasonal Business>
13.	Ezhukumon 2	General	74	1 acre 50 cents (20%) - 5 acres	Subsistence Farming>Misc. Wage Labour>Sabarimala Seasonal Business>
14.	Azhuthamunni	General	91	1 acre 50 cents (20%) - 5 acres	Subsistence Farming>Misc. Wage Labour>Sabarimala Seasonal Business>
15.	Arattukayam 1	General	75	1 acre 50 cents (20%) - 5 acres	Subsistence Farming>Misc. Wage Labour>Sabarimala Seasonal Business>
16.	Arattukayam 2	General	69	1 acre 50 cents (20%) - 5 acres	Subsistence Farming>Misc. Wage Labour>Sabarimala Seasonal Business>
17.	Angel Valley 1	General	58	1 acre 50 cents (20%) - 5 acres	Subsistence Farming>Misc. Wage Labour>Sabarimala Seasonal Business>
18.	Angel Valley 2	General	79	1 acre 50 cents (20%) - 5 acres	Subsistence Farming>Misc. Wage Labour>Sabarimala Seasonal Business>
19.	Angel Valley 3	General	95	1 acre 50 cents (20%) - 5 acres	Subsistence Farming>Misc. Wage Labour>Sabarimala Seasonal Business>
20.	Ex- Vyana Bark Collectors EDCs	SC & others	23	NA	Tourism Related Employment
21.	Watchers EDC Thekkady	General	58	NA	Govt. Employment>Misc. Shops & Services in tourism Zone of

Sl. No	Name of EDC	Social group	Number of families	Average size of landholding	Means of living
					PTR
22.	Watchers EDC Vallakkadavu	General	35	NA	Govt. Employees
23.	Tribal Trackers EDC	ST	20	NA	Tourism Related Employment
24.	Staff EDC Thekkady	General	80	NA	Govt. Employees
25.	Graziers EDC- Thekkady	General	88	NA	Pastorals > Subsistence Farming > Business > Misc. Wage Labour
26.	Thatching Grass and Fuel Wood Collectors EDC	SC & others	98	Negligible Landless 40 %, 30 % below 30 cents	Thatching Grass and Fuel Wood Collection
27.	SAPP- Azhuthakkadavu	General	84	Not Applicable	Sabarimala Season Business
28.	SAPP- Kallidamkundu	General	60	Not Applicable	Sabarimala Season Business
29.	SAPP- Vallithodu	General	77	Not Applicable	Sabarimala Season Business
30.	SAPP- Vellarachetta	General	64	Not Applicable	Sabarimala Season Business
31.	SAPP- Puthussery	General	88	Not Applicable	Sabarimala Season Business
32.	SAPP- Karimala	General	33	Not Applicable	Sabarimala Season Business
33.	Sathram	SC	138	80 cents 10 cents (10 %)- 6 acres	Subsistence Farming>Plantation Labour> Misc. Wage Labour>
34.	Ceylon Colony	SC	41	5 cents 2 cents (60%) rest 60 cents	Misc. wage Labour
35.	Ceylon Mount	SC & others	39	20 cents 10 cents (30%) – 3 acres	Plantation Labour>Subsistence Farming
36.	Old check post to New Check post, Thekkady	General	74	5 cents 5 cents (80%) to 1 acre	Tourism Related Services >Subsistence Farming
37.	Mattupetty 1 Puthuvayal	General	77	40 cents	Subsistence Farming>Plantation Labour>Misc. Wage Labour
38.	Mattupetty 1 Layam	SC	92	Landless	Tea Plantation Labour

Sl. No	Name of EDC	Social group	Number of families	Average size of landholding	Means of living
39.	Vallakkadavu 1	General	84	50 cents 10 cents (25%)- 3acres	Subsistence Farming>Misc. Wage Labour
40.	Vallakkadavu 2	General	102	50 cents 10 cents (25%)- 3acres	Subsistence Farming>Misc. Wage Labour
41.	Vallakkadavu 3	General	71	50 cents 10 cents (25%)- 3acres	Subsistence Farming>Misc. Wage Labour
42.	Vallakkadavu 4	General	67	50 cents 10 cents (25%)- 3acres	Subsistence Farming>Misc. Wage Labour
43.	Vallakkadavu 5	General	73	50 cents 10 cents (25%)- 3acres	Subsistence Farming,>Misc. Wage Labour
44.	Periyar colony Thekkady	SC & others	32	2.5 cents each for 100%hhs	Construction Wage Labour Misc. Wage Labour>Vending
45.	Gandhi Nagar Colony	SC & Others	34	3 cents each for 100%hhs	Construction Wage Labour Misc. Wage Labour>Vending
46.	Kurisumala 1	General	90	1.5 acre 0.5 to 5 acre	Subsistence farming>Misc. Wage Labour
47.	Kurisumala 2	General	55	1.5 acre 0.5 to 5acre	Subsistence farming>Misc. Wage Labour
48.	Kandankayam	General	101	60 cents 25 cents (30 %) – 4 acres	Subsistence Farming > Misc. Wage labour > Sabarimala Season Business
49.	Koruthodu	General	124	15 cents 10 cents (60 %) – 1 acre	Subsistence Farming > Misc. Wage labour > Sabarimala Season Business
50.	Kuzhimavu 1	General	122	25 cents 10 cents (50 %) - 1.5 acres	Subsistence Farming > Misc. Wage labour > Sabarimala Season Business
51.	Kuzhimavu 2	SC & others	122	75 cents 10 cents (30%) – 3 acres	Subsistence Farming > Misc. Wage labour > Sabarimala Season Business
52.	Anakkallu	ST & others	49	50 cents 10 cents (25 %) 3 acres	Subsistence Farming > Misc. Wage labour > Sabarimala Season Business

Sl. No	Name of EDC	Social group	Number of families	Average size of landholding	Means of living
53.	Spring Valley	General	70	1.5 acre 0.5 to 5 acre	Subsistence Farming > Misc. Wage labour
54.	Mullayar	General	107	30 cents 10 cents (30%) – 2.5 acre	Agriculture>Plantation Labour > Misc. Wage Labour
55.	Chottupara	General	78	30 cents 10 cents (30%) – 2.5 acre	Estate Labour >Subsistence Farming > Misc. Wage Labour
56.	Kollampattada 1	General	78	40 cents 10 cents (30%) to 5 acre	Subsistence Farming>Misc. wage labour >Sabarimala Season Business
57.	Kollampattada 2	General	128	40 cents 10 cents (30%) to 5 acre	Subsistence Farming>Misc. wage labour >Sabarimala Season Business
58.	Kollampattada 3	General	101	40 cents 10 cents (30%) to 5 acre	Subsistence Farming>Misc. wage labour >Sabarimala Season Business
59.	Kollampattada 4	General	72	40 cents 10 cents (30%) to 5 acre	Subsistence Farming>Misc. wage labour >Sabarimala Season Business
60.	Kollampattada 5 Women's EDC	General	27	40 cents 10 cents (30%) to 5 acre	
61.	Kismum 1	SC & others	71	30 cents 10 cents (50%) – 4 acre	Subsistence Farming>Reed Bamboo Work>Misc. Wage labour
62.	Kismum 2	SC & others	70	30 cents 10 cents (50%) – 4 acre	Subsistence Farming>Reed Bamboo Work>Misc. Wage labour
63.	Attathodu 1	ST	76	80 cents 10 cents (10%) – 2 acres	Subsistence Farming>Misc. Wage Labour>Collection of Forest Produce> Reed Work>Sabarimala Season Business
64.	Attathodu 2	ST	79	80 cents 10 cents (10%) – 2 acres	Subsistence Farming>Misc. Wage Labour>Collection of Forest Produce> Reed Work>Sabarimala Season Business
65.	Attathodu 3	SC & others	67	50 cents 20 cents (40%)	Subsistence Farming>Misc. Wage Labour>Collection of



Sl. No	Name of EDC	Social group	Number of families	Average size of landholding	Means of living
				%) up to 2 acres	Forest Produce> Reed Work>Sabarimala Season Business
66.	KFDC-Meenar	SC & others	72	Landless	Plantation Labour
67.	KFDC-Gavi	SC & others	96	Landless	Plantation Labour
68.	Kalaketty 1	ST & others	99	1 acre 10 cents (10%)- 5acres	Subsistence Farming>Sabarimala Season Business>Misc. Wage Labour
69.	Kalaketty 2	ST & others	85	1 acre 10 cents (10%)- 5acres	Subsistence Farming>Sabarimala Season Business>Misc. Wage Labour
70.	Mookkenpetty 1	SC& others	96	1.5 acre 10 cents (10%)- 6acres	Subsistence Farming>Sabarimala Season Business>Misc. Wage Labour
71.	Mookkenpetty 2	SC & others	88	1.5 acre 10 cents (10%)- 6acres	Subsistence Farming>Sabarimala Season Business>Misc. Wage Labour

### Annexure III

#### List of Project Education Exercise Carried out in the Fringe Area

Sl. No	Name of EDC	Venue	Date	Male	Female	Total
1.	Mannakkudy I,II,III	Mannakkudy community hall	07-10-2000	72	111	183
2.	Paliyakkudy	Govt. tribal UP school Kumily	09-10-2000	33	42	75
3.	Periyar colony	Periyar colony	11-05-2000	39	38	77
4.	Vanchivayal	Vanchivayal	09-02-2001	59	34	93
5.	Sathram	Sathram ground	18-02-2001	49	45	94
6.	Kuttikkayam	Kuttikkayam ground	01-03-2001	52	50	102
7.	Vallithodu	CKM HSS Koruthodu	13-03-2001	109	4	113
8.	Puthussery					
9.	Vallaram Chetta					
10.	Azhuthakkadavu					
11.	Kallidam kunnu					
12.	Arattukayam I	Angel valley school	23-03-2001	59	44	103
13.	Arattukayam II					
14.	Angel Valley I	Angel valley	24-03-2001	161	33	194
15.	Angel Valley II					
16.	Angel Valley III					
17.	Kurisumala II	Kurisumala ground	04-05-2001	38	30	68
18.	Spring Valley	Estate ground	20-05-2001	31	29	60
19.	Mullayar	Estate ground	22-05-2001	47	36	83
20.	Mattupetty Puthuval	Mattupetty Estate ground	24-05-2001	47	34	81
21.	Mattupetty Layam					
22.	Ceylon colony	Vallakkadavu Dormitory	25-05-2001	28	19	47
23.	Kuzhimavu II	Kuzhimavu Ground	29-05-2001	58	28	86
24.	Thadithodu	Anakkallu club Ground	20-06-2001	55	47	102
25.	Anakkallu					
Total				937	624	1561

## Bibliography

### 1. Department of Forest: Official Documents on PTR

- Balasubramanian, M. "Baseline Survey and Ecological Impact Assessment in Poogavanam at Sabarimala: Final Report". India Eco Development Project, PTR. 1999
- Beennichen Thomas, "Documentation Report on Eco-Development Project in PTR". 'Eco Development Programme in PTR: The Impact, Scope and Notable Case Studies,' Periyar Tiger Reserve, October, 2002.
- Kaler, O.P. Submissions to the Field Director on 27 Sep. '97; 20 Oct. '98; 16 December 1997;
- Paristhiti Samiti "Sixth Report on Rudranam Project", Kerala Legislative Assembly, Thiruvananthapuram, 1995.
- Sivadas, S. Special Officer's Reports (12 Nov. '97; 19 Nov. '97; 28 Nov. '97; 15 Dec. '97; 30 Dec. '97; 6 Jan. '98; 7 Jan. '98; 13 Jan. '98; 16 Jan. '98 On Sabarimala, PTR.
- WLPO. Wildlife Offences: Year Wise Statements, 1990 - 96. PTR.
- WLPO. Forest Offences: Location Wise Statement, 1997. PTR.

### 2. Secondary Literature

- Agarwal, A. ed. *The Price of Forests*. Centre for Science and Environment. New Delhi. 1992.
- Agrawal, A. and G. Yadama, "How Do Local Institutions Mediate Market and Population Pressures on Resources ? Forest Panchayaths in Kumaon, India," *Development and Change* 28: 435-465. 1997.
- Annual Report 1994-95*, Ministry of Environment and Forests. Government of India. New Delhi. 1995.
- Ashish Kothari, Prathibha Pande, Shekhar Singh and Dinavaj Variara, *Management of National Parks and Sanctuaries in India: A Status Report*. IIPA. New Delhi. 1989.
- Asia Forest Network : Linking Government with Community Resource Management: What's Working and What's not*. Research Network Report Number 9, May 1997. University of California, Berkeley: Centre for Southeast Asia Studies.
- Asia Forest Network , Grassroots Forest Protection: Eastern Indian Experiences*. Research Network Report Number 7, March 1996. University of California, Berkeley: Centre for Southeast Asia Studies.
- Campbell, J.Y. "The Power to Control *versus* the Need to Use: A Pragmatic View of Joint Forest Management," *Common Property Resource Digest*, No. 37, March 1996, pp 9-10.
- Campbell, J.Y., R.N. Chattopadhyay, and C. Das. "Income Generation through Joint Forest Management in India: A Case Study of the Participatory Forest Management Project in Nayagram, West Bengal," in M. Victor ed. *Income Generation through Community Forestry*. Proceedings of an International Seminar held in Bangkok, Thailand, October 18-20, 1995. RECOFTC Report 13. Bangkok, Thailand: RECOFTC.
- Corbridge, S. and S. Jewitt. "From Forest Struggles to Forest Citizens? Joint Forest

- Management in the Unquiet Woods of India's Jharkhand." *Environment and Planning A* 29:2145-2164. 1997.
- Census of India - 1991: Series 12, Kerala Paper 3 (Final). Government of India. 1994.
- Chatterji A. 1998, *Toward An Ecology of Hope: Community and Joint Forest Management in Orissa*, California: Asia Forest Network.
- Chetan Agarwal & Sushil Saigal, *Joint Forest Management in India: A Brief Review*, Spwd, New Delhi. Mimeo. 1996
- Dixon, J.A. & P.B. Sherman. *Economics of Protected Areas: A New Look at Benefits and Costs*, Earthscan Publications Ltd.London. 1990.
- Gadgil, M. and R. Guha., "Ecological Conflicts and the Environmental Movement in India." in D. Ghai ed. *Development and environment: Sustaining people and nature*. Oxford/Geneva: Blackwell/UNRISD. 1994.
- Gadgil, M. and R. Guha. *Ecology and Equity: The Use and Abuse of Nature in Contemporary India*. London: Routledge. 1995.
- Government of India: Economic Survey 1995-96*. Ministry of Finance. New Delhi. 1996.
- Guha, R. "Dietrich Brandis and Indian Forestry: A Vision Revisited and Reaffirmed." in M. Poffenberger and B. McGean eds. *Village Voices, Forest Choices: Joint Forest Management in India*. Delhi: Oxford University Press. 1996.
- Gupta.T & A.Guleria. *Some Economic and Management Aspects of a Non-wood Forest Product in India: Tendu Leaves*. OUP. New Delhi. 1982
- Hobley, M.and K. Shah. *What Makes a Local Organisation Robust? Evidence from Nepal and India*. London: Overseas Development Insitute. 1996.
- India Eco Development Project. Project Document, Report No. 14914-IN. Washington, D.C.: Global Environment Coordination Division, Environment Department, World Bank.
- Jewitt, S.L.. "Europe's others? Forestry Policy and Practices in Colonial and Postcolonial India." *Environment and Planning D, Society and Space* 13:67-90. 1995
- Jewitt, S. L., "Voluntary and 'Official' Forest Protection Committees in Bihar: Solutions to India's Deforestation?" *Journal of Biogeography* 22:1003-1021. 1995
- Jha, L.K. and P.K. Sen Sarma.. *Forestry for the People*. New Delhi: Ashish Publishing House. 1994
- Jattan, S.S. & Pratima, "Participatory Forest Management Objectives in India," *Indian Forester*, May, 2001.
- Krishnaswamy, A. "Sustainable Development and Community Forest Management in Bihar, India." *Society and Resources* Vol. 8:339-350. 1994.
- Mackenzie, A.T. *History of the Periyar Project*, Controller of Stationary and Printing, Govt. of Madras, Madras. 1963.
- Madhav Gadgil & Ramachandra Guha, *The Fissured Land: An Ecological History of India*. OUP. New Delhi. 1992
- Malhotra K.C and Mark Poffenberger, eds. *Forest Regeneration Through Community Participation*. Calcutta. 1989
- Moench, M. "Turf" and forest management in a Garhwal Hill Village (India), in L. Fortmann and J.W. Bruce eds. *Whose Trees? Proprietary Dimensions of Forestry*. Boulder: Westview Press. 1988.
- Manoharan, T.R. "Economics of Protected Areas: A Case Study of PTR", Unpublished Ph.D Dissertation, Forest Research Institute, Dehra Dun, 1996.

- Mark Poffenberger & Betsy McGean, *Village Voices, and Forest Choices*, OUP. New Delhi.1996
- Nair, M.S. *Management Plan for the Periyar Tiger Reserve*, Kerala Forest Department, Trivandrum. 1978.
- National Forest Policy*, Ministry of Environment and Forests. Government of India. New Delhi. 1988.
- Palit, S. "Indian Forest Departments in Transition," in M. Poffenberger and B. McGean eds. *Village Voices, Forest Choices: Joint Forest Management in India*. Delhi: Oxford University Press. 1996.
- Pathan R.S. Aral N.J. Poffenberger. M. *Forest Protection Committees in Gujarat*. New Delhi. 1990
- Poffenberger, M. "The Struggle for Forest Control in the Jungle Mahals of West Bengal," in M. Poffenberger and B. McGean eds. *Village Voices, Forest Choices: Joint Forest Management in India*. Delhi: Oxford University Press. 1996.
- Poffenberger, M. B. McGean, and A. Khare. "Communities Sustaining India's Forests in the Twenty-First Century," in M. Poffenberger and B. McGean eds. *Village Voices, Forest Choices: Joint Forest Management in India*. Delhi: Oxford University Press. 1996.
- Poffenberger, M. and C. Singh. "Communities and the State: Re-establishing the Balance in Indian forest policy," in M. Poffenberger and B. McGean eds. *Village Voices, Forest Choices: Joint Forest Management in India*. Delhi: Oxford University Press. 1996.
- Prasad, R. and P. Bhatanagar. "Social Forestry Experiences over a Decade." Dehra Dun: International Book Distributors. 1995.
- Rangan, H. "Property vs. Control: The State and Forest Management in the Indian Himalaya." *Development and Change* 28:71-94 1997.
- Rangan, H., "From Chipko to Uttaranchal: Development, Environment, and Social Protest in the Garhwal Himalayas." in R. Peet and M. Watts eds. *Liberation Ecologies*. London:Routledge. 1996
- Rangan, H., "Contested Boundaries: Forest Classifications, State Policies and Deforestation in the Garhwal Himalayas." *Antipode* 27:343-362. 1995.
- Ravindranath, N.H., M. Gadgil and J. Campbell.. "Ecological Stabilization and Community Needs: Managing India's Forests by Objective," in M. Poffenberger and B. McGean eds. *Village Voices, Forest Choices: Joint Forest Management in India*. Delhi: Oxford University Press. 1996.
- Sarin, M. "From Conflict to Collaboration: Institutional Issues in Community Management," in M. Poffenberger and B. McGean eds. *Village Voices, Forest Choices: Joint Forest Management in India*. Delhi: Oxford University Press. 1996.
- Sarin, M, "Joint Forest Management in India: Achievements and Unaddressed Challenges," *Unasylva* 26(180):30-36. 1995
- Sarin, M, "Regenerating India's forests: Reconciling Gender Equity with Joint Forest Management," *IDS Buletin* 26:83-91. 1995
- Shanmugaratnam, N. "Nationalisation, Privatisation and the Dilemmas of Common Property Management in Western Rajasthan," *The Journal of Development Studies* 33(2):163-187. 1996.
- Sharma, R. "Learning from Experiences of Joint Forest Management in India. Forest,"

- Trees and People Newsletter*, No. 24, June 1994. Rome:FAO.
- Singh, R.V. "Participatory Forest Management for Conservation and Sustainable Use of Plant Diversity in India," *Indian Forester*, Dehra Dun, 1996
- Singh, S. *et al. Participatory Forest Management in West Bengal: A Case Study* prepared for WWF - International. World Wide Fund for Nature - India, New Delhi.
- Sinha, A. "Community Initiatives for Sustainable Livelihoods in Natural Forest Regions – Some Reflections on Community Perceptions in the Sal Forest Regions of Singhbhum District in Bihar, India, in M. Victor (editor), *Income Generation through Community Forestry*. Proceedings of an International Seminar held in Bangkok, Thailand, October 8-20, 1995. RECOFTC Report 13. Bangkok, Thailand: RECOFTC. 1997.
- Sivaramakrishnan, K. "Co-Management for Forests: Are We Overly Pre-occupied with Property Rights?" *Common Property Resource Digest*, No. 37, March 1996, pp6-8.
- Swanson, T.M. and E.B. Barbier (Ed.) *Economics for the Worlds' Wildlife, Diversity Wildlands, and Development*. Earthscan Publications Ltd. London. 1990.
- Turton, C. and J. Farrington. Enhancing Rural Livelihoods through Participatory Watershed Development in India. Natural Resource Perspectives Paper. Overseas Development Institute. 1998.
- Upadhyay, R.K. "Policy and Legal Issues Involved in Successful Implementation of Joint Forest Management (JFM) – A Critical Analysis," *Indian Forester*, Dehra Dun, 2001.
- Williams, G. "State, Discourse, and Development in India: The Case of West Bengal's Panchayathi Raj," *Environment and Planning A* 29:2099-2112. 1997.
- Yadama, G. N. "Tales from the Field: Observations on the Impact of Non-governmental Organizations," *International Social Work* 40:145-162. 1997.

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