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**INDIGENOUS FOREST USE PRACTICES
AND SUSTAINABILITY:
A CASE STUDY OF THE ADIVASIS
OF THE NILGIRI BIOSPHERE REGION,
SOUTH INDIA**

BY

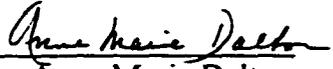
ANN DUDLEY

A thesis submitted in partial fulfillment of the requirements for a
Masters of Arts degree in
International Development Studies

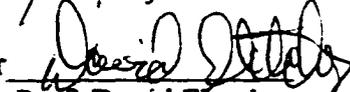
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Thesis approved by:

Supervisor 
Dr. Anne Marie Dalton

First Reader 
Prof. Gerry Cameron

Second Reader 
Prof. David Fletcher



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ABSTRACT

INDIGENOUS FOREST USE PRACTICES AND SUSTAINABILITY: A CASE STUDY OF THE ADIVASIS OF THE NILGIRI BIOSPHERE REGION, SOUTH INDIA

**Submitted by Ann Dudley
April 14, 1999**

The adivasis, or tribal peoples of India, have many practices that promote the sustainability of their forest environments. Such practices are supported by animistic beliefs in which trees and other natural phenomena are inhabited by spirits. This thesis is a case study which explores indigenous knowledge and sustainable livelihoods among tribals encountered in the Nilgiri Biosphere region, (located at the tri-state conjunction of Kerala, Karnataka and Tamil Nadu), as well as examining how their lifestyles may have changed due to modernisation. Data was obtained through visits with NGOs and interviews with the tribals with whom they worked, attained over a four-month period of travelling within the region. All of the tribals interviewed discussed hardships experienced due to a denial of their traditional rights in the forest. This phenomenon is also supported in the literature. With the arrival of the British colonists, forests came under the jurisdiction of the state and subsistence users were increasingly penalised. This system of forest reservation continued after independence. Repressive forest policies, coupled with industrial deforestation and the clearing of forests for agriculture, disrupted the reciprocal relationship which the tribals originally had with their forests. Interaction with the dominant Hindu culture within the context of increasing globalisation of their natural resources, has resulted in the marginalisation and exploitation of the adivasis, and in an erosion of their traditional knowledge. The adoption of Hinduism has also resulted in a deterioration of the status of women, who are highly regarded in tribal culture and have a prominent role in the forest-based economy. In spite of these changes, adivasis seemed to maintain an ecological world view, as well as many of their integral ethos. The preservation of such cultural diversity, and the valuing of these ecological world views, is essential in order to combat capitalist homogenisation and promote sustainable development.

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INTRODUCTION

The plight of indigenous peoples throughout the world, their struggles against dispossession of their lands and dissolution of their cultures, reflects a basic incongruence between their world view and that of hegemonic political and economic structures, and as such, is a clash between power and powerlessness. At the same time, the global environmental crisis and the growing interest in "sustainable development", has led to questioning of the direction of global economics, as well as the system of scientific knowledge supporting it. This questioning has led to a resurgence of scholarship investigating the validity of indigenous ecological knowledge and resource management systems.

These traditional resource management regimes were developed over thousands of years of intimate contact with specific ecosystems. Due to the embeddedness of indigenous peoples within these ecosystems, in addition to their low desire level subsistence lifestyles, traditional resource management systems have had minimal impacts on their environments. As a result, a tremendous amount of detailed and valuable knowledge regarding local plants, animals, soil conditions and watershed management techniques is held by such local communities (Vatsayayan, 1992, p. 183).

The validity of such knowledge has gained international recognition through its endorsement in such documents as The World Conservation Strategy (IUCN et al 1980), and Our Common Future (WCED 1987), which both stressed the integration of local indigenous knowledge in plans for sustainable resource management. While initial interest in indigenous knowledge by Western scientists was to compare their respective taxonomies, more recently, emphasis has been placed on the manner in which the ecologically sound practices of indigenous peoples can be incorporated within resource

management plans, and integrated with Western scientific knowledge in the process (Johnson, 1992, p. 16).

In contrast to Western scientific methodologies, indigenous knowledge is embedded in a spiritual and social context, involving reciprocal and non-linear relationships between and within the human and natural environments:

Ecosystems sustain themselves in a dynamic balance based on cycles and fluctuations which are non-linear processes...Ecological awareness then will arise only when we combine our rational knowledge with an intuition for the non-linear nature of our environment. Such intuitive wisdom is characteristic in traditional non-literate cultures...in which life was organised around a highly refined awareness of the environment (Capra 1982, p.41,quoted in Berkes, 1993 p.1).

Traditional ecological knowledge systems are based on the assumption that the elements of matter contain a life force, thus all parts of the natural world are infused with spirit (Johnson, 1992, p. 7). Additionally, the animistic religions practised by most indigenous people contained no division between the natural and the supernatural, humans and nature. The land is not owned per se, but is considered to be a sacred part of all ancestors as well as future generations.

Traditional Indian societies believed in the concept of "Jiva" wherein humans were a part of all that is around and sustains them (Vatsayan, 1992, p.160). Thus indigenous management systems were supported and maintained by religious beliefs that contained sanctions and mores restricting the use of resources and promoting environmental protection. Unsurprisingly, the beliefs of Indian tribals are therefore geared to the maintenance of a balance between their needs and the preservation of the forest or other resources (Venkateswaran,1996, p.2) .

This thesis will focus on these belief systems, specifically the spiritual components of indigenous knowledge systems, as opposed to detailed descriptions of ecological knowledge held by South Indian tribals. Additionally, this thesis will examine the sustainability of traditional practices. The manner in which indigenous lifestyles are

under threat from external forces, such as destructive development projects and restrictive forest policies will also be documented. The impact of such modernising influences are analysed in terms of their impact on tribal culture; specifically on indigenous forest practices, health, and the transmission of indigenous knowledge to future generations. The impact of such cultural integration on tribal women will also be examined in detail. Gender impacts are particularly relevant in this case, as tribal women are very involved in the forest economy, and traditionally have held a higher status than women in caste Hindu society.

These modernising influences reflect the Western capitalist tradition, which is at odds with the indigenous cosmology of the tribals interviewed. Western capitalism, utilising classical scientific methodologies, views the natural world in terms of resources for human use with an absence of a spiritual connection. This Cartesian world view, which separates humans from nature, has become increasingly dominant. Indigenous people often live in areas rich in mineral, forest or hydro resources which are in demand by national governments. The imperatives of economic growth within the global capitalist system ensure that indigenous populations within developing nations will find their territories taken over for “development projects,” and the rich cultural heritage developed through their connection to these lands, considered irrelevant, and as non-knowledge. Indigenous knowledge is thus increasingly devalued, while Western scientific knowledge, which is intimately linked with the marketplace (Shiva, 1993, p. 68), forms the pervasive justification for this definition of “development.”

Colonial policies and decades of planned development have created a critical situation for the tribal population in India, which is fairly representative of the current situation in many developing countries. The many diverse indigenous peoples of the subcontinent are all described in the literature utilising the umbrella term “adivasi.” The terminology derives from the Hindi word “Adi” which means of earliest times, or from the

beginning, and "Vasi" meaning inhabitant or resident (Rehman, 1998, p. 95). Like other countries in South Asia, the Government of India does not recognise the existence of aboriginal people within its borders, leading to contradictory policies regarding their development. Additionally, there is an unwieldy centralisation of authority regarding natural resource management. For instance, an estimated 97% of the forest areas in India are managed by the Forest Department (Poffenberger et. al. 1996, p. 18), leading it to become one of the largest and most hated Indian bureaucracies. Such centralisation of power is a hold-over from the colonial era, as are the "scientific forestry management" policies involving the replacement of natural forests with monocultures, and the "fence and protect" park area conservation policies, both of which result in the eviction or denial of forest rights for indigenous inhabitants.

Restrictions on cultivation and gathering are often so severe that the tribals may find the only land they can claim is that on which their huts are actually located. This situation forces them into the cash economy, and they are compelled to work on the same coffee and tea plantations which are in part responsible for the destruction of their natural forests. As tribals are often unaccustomed to using money, this income is squandered on liquor, films or taxis. At the same time, their knowledge of and connection with the forest diminishes. While tribal forest rights are denied, the Forest Department has been known to lease out logging contracts on the same lands. Traditional community forest use practices and protection systems have unsurprisingly broken down as these indigenous rights have declined (Poffenberger, 1996, p. 20). Impoverishment and a diminished resource base may cause the symbiotic relationship the tribals had with the forest to revert to one of "destructive dependence," with their being employed by logging contractors or carrying headloads of fuel wood for sale to urban dwellers (Fernandes and Deeney, 1992, p. 49).

As most rural Indians depend on locally available biomass for their survival, conflicts over natural resources have been among the most contentious facing the nation. Conflicts over hydro projects, forest uprisings and debates regarding the fate of common property and grazing rights have become heated political issues. In this context, the need for a new approach to development that links the issues of poverty and environmental protection is increasingly being recognised. Community based resource management, wherein local communities are given control over the ecosystem or resources on which they depend, and receive the benefits derived from its protection, is gaining recognition as a possible solution to intractable resource conflicts.

This approach has found expression in Joint Forest Management initiatives, where village protection committees ostensibly are provided with the benefits of forest protection. As these initiatives are under Forest Department jurisdiction, it remains to be seen how effective they can be, given that the Forest Department is connected with the national government, and would therefore support (and has in the past) national development priorities based on capitalist expansion. To be valuable in terms of promoting both conservation and development, community based resource management demands a revitalisation of indigenous knowledge, community management and ethos, all of which are under threat from this formal economic system.

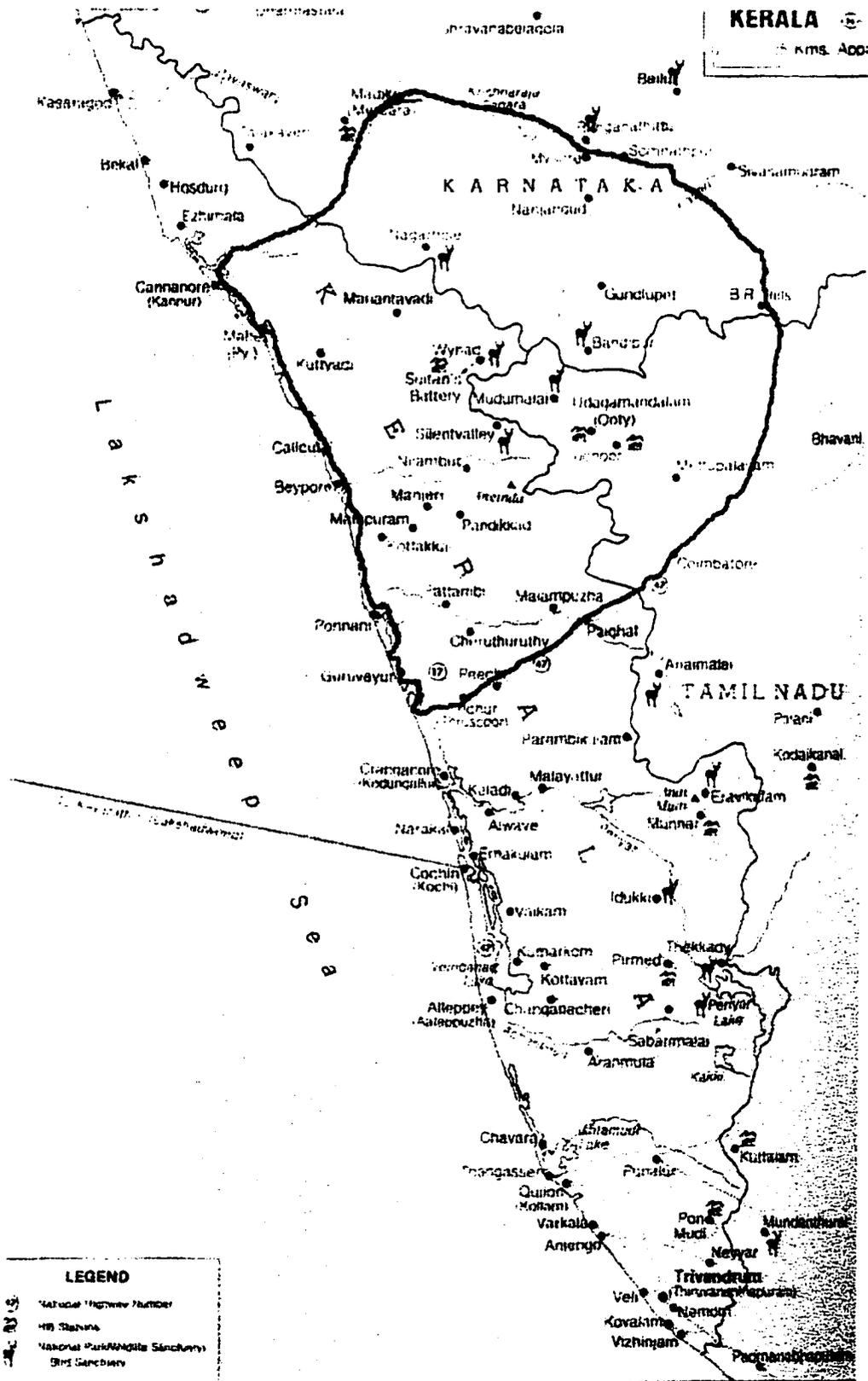
This thesis will further explore the dynamics of this clash in world views, the impact of often contradictory government policy, as well as the environmental implications of traditional systems. Most of the scholarship on the current adivasi situation deals with the larger population of tribals in Central and North India, while less emphasis has been placed on the smaller population of tribals in the Western Ghats of the South. In this case study, specific reference will be made to the tribals of the Nilgiri Biosphere region, located at the tri-state conjunction of Kerala, Karnataka and Tamil Nadu in South India. This area comprises an extended adivasi homeland of 5500

square kilometres including many national park areas, such as Wayanad Wildlife Sanctuary and the Silent Valley reserve in Kerala, Nagarhole and Bandipur Sanctuaries in Karnataka, and the Mudamalai Wildlife Sanctuary in Tamil Nadu (Varghese and Thekaekara, 1996, p.236). The Nilgiri Biosphere was also chosen by UNESCO to be India's first such reserve under the Man and Environment Program (Bird-David, 1997, p. 5). While this region contains less than 5% of the tribal population of India, it contains the majority of the adivasis of the south (Cheria et. al., 1997, p.40). The tribal groups from this region which will be the focus of this study include: the Paniyan, the Soligas, Jenu Kurumbas, Nayakers, and Bette Kurumbas.

Data regarding the specific situations of these tribals was attained over a four-month period of travelling in the Nilgiri Biosphere region, visiting various NGOs and meeting the tribals with whom they worked. A longer period of time was spent with one particular NGO known as CORD- The Coorg Organisation for Rural Development. Most of CORD's work was with tribals in Nagarhole National Park, who were facing eviction due to a Global Environment Facility and World Bank sponsored "Ecodevelopment" project geared for the preservation of the protected area. The local Jenu Kurumba led tribal organisation has been involved in protesting the Ecodevelopment Plan, and in pressing for more rights for tribals in terms of forest gathering and cultivation. Their solution to the conservation issues involves giving them more control over the resources and invoking a model of tribal self-rule.

The first hand data obtained through interviews with these Jenu Kurumbas, as well as other tribals in the region, will be presented in Chapter Four. Chapter One will outline the framework provided by indigenous knowledge research and sustainable development theory, while Chapter Two contains a more in depth discussion of the adivasi situation in India, including the relevant tribal legislation. Chapter Three describes the methodology utilised, as well as my journey and the process involved in

the discovery of the various NGOs. Chapter Five provides interpretation of the interview data, focussing on the impacts of the current development policies on the tribal community, including gender impacts, and how the current tribal situation in India reflects a clash of world views. In Chapter Six there will be a discussion regarding the implications of this research for development in an ecological context, including theories of community based resource management and plans for tribal self-rule.



CHAPTER ONE
LITERATURE REVIEW:
INDIGENOUS KNOWLEDGE RESEARCH AND
THEORETICAL FRAMEWORKS

The issues surrounding the incorporation of indigenous knowledge into the co-management of natural resources in Canada's North have been well documented (Johnson, 1992), (Inglis, 1993). These issues become even more complex in a developing nation such as India, which has an incredible diversity of both ecological and cultural systems:

The resource complexes of South Asia were characterised by extreme diversity...This mosaic of small territories, based upon locally available knowledge of resource characteristics and locally available energy and materials of resource management, is a classic example of the principles underlying traditional systems (Klee, 1980, p.75).

These systems have co-evolved over thousands of years, "bringing into being remarkable traditions of sociocultural wisdom" (Kothari and Parajuli, 1993, p. 225).

Indigenous knowledge is based on direct experience of adapting to such diverse environments over long periods of time. As India is primarily a biomass-based civilisation, systems fostering the sustainable use and equitable distribution of resources at the local eco-system level are essential in order to promote development and avoid conflict.

Unfortunately, this local knowledge has often been ignored by policymakers working at the macro level. India has rather embraced a modernisation perspective of development, focussing on national growth based on the exploitation of natural resources such as hydro dams and forestry. This model of development, wherein the demands of the global marketplace take precedence over the subsistence needs of local people, can never be sustainable. The focus on national economic growth within the context of global capitalism has often resulted in human rights abuses, as forest peoples

and small farmers are alienated from their lands to make way for logging, cash cropping or commercial monocultural tree plantations.

As the imperatives of this global marketplace continue to displace and destroy indigenous communities, the knowledge systems of these societies are being eroded in the process. In the case of indigenous peoples, this often amounts to cultural genocide. The assimilation and genocide of these indigenous societies threatens the cultural diversity of the planet, just as monocultural plantations threaten biodiversity. The two are inextricably linked:

Cultural diversity and biological diversity go hand in hand... The deep and sophisticated knowledge of biodiversity has given rise to cultural rules for conservation reflected in notions of sacredness and taboos (Shiva, 1993, p.65).

The growth of free market capitalism encourages corporations to deprive local people of subsistence livelihoods, by transferring resources out of their control. Previously self-sufficient villagers are then compelled to join the market economy in a very disadvantaged position.

While aboriginal peoples have co-evolved with their environments over thousands of years, the value of their knowledge of the natural resource base in terms of promoting sustainable development has only recently been recognised. Traditional knowledge is vital precisely because its inspiration is the local ecosystem in which it was developed (Berkes, 1993, p. 6), thus it provides a countervailing force to globalisation. The latter is based on the dominant system of knowledge, namely the Western scientific method.

Even dominant conceptions of "sustainable development," such as the model advocated in the Brundtland report, are based on the continued application of the scientific method and neo-classical economics on a global scale. The achievement of sustainable development, in this conception, is based on continued economic growth as "only growth can eliminate poverty, and only growth can create the capacity to solve

environmental problems” (WCED, 1987, p.150). Improved technical ingenuity (rooted in western science) is advocated as a solution to the current crisis. This approach to sustainable development, as advocated in the Brundtland Report, has been criticised for aiming to preserve Western models of development, by simply creating less polluting technologies and imposing limitations on toxic emissions, etc. This conception does not challenge the inherent injustice of current development models.

There are alternative conceptions of “sustainable development” which emphasise grassroots participatory development based on local control over resources. Such alternative visions argue that devolution of power to the community level is requisite to sustainability. Robert Chambers promotes “sustainable livelihoods” that emphasises relations between the South’s environment and poverty at the local level, fulfilment of basic needs, low risk and sustainability (Braidotti et al., 1994, p.134). Such an approach, by making rural regions economically viable, can do much to stem the flow of urban migration that is creating disastrous mega-cities in developing nations. It is with sustainability at the local level that is the concern of this paper, as only such a decentralised grassroots approach can incorporate indigenous knowledge systems.

The difference in these two definitions of sustainable development are reflective of the distinctions between traditional ecological knowledge and Western science, which differ in almost every aspect, as they are rooted in two diametrically opposed world views. While the recent interest in indigenous knowledge research and natural resource co-management has led to a desire to combine these two knowledge systems, their inherent incompatibility, coupled with their power differential, has made such an exercise difficult. Colonisation and subsequent neo-colonial exploitation has been successful in disrupting and destroying indigenous systems of knowledge. Colonial policies remain prevalent in the state structures of developing nations, who continue to annex and exploit the territories occupied by indigenous peoples. The subtle prevalence of such

colonial mentalities ensure that, while researchers may state a commitment to incorporating indigenous knowledge into an environmental impact assessment, scientific methodology tends to prevail (Grenier, 1998, p. 11).

At the same time, studies comparing the knowledge which people hold regarding their environment, with that established through scientific methodologies, have revealed that, in many instances, both are equally valid (Chandler, 1994) (Wickham, 1993). In Chandler's study of agroforestry techniques among peasants in China, the rationales for adopting certain strategies compared favourably with empirical explanations. Wickham found that among the Pausan of Bali, their knowledge of soils and trees was even more detailed than that established through scientific studies. Additionally, it has been established that there is often a fairly close correspondence between scientific classifications and the taxonomies of plants and animals established by indigenous people (Johnson, 1992, p. 5).

In spite of such evidence regarding its validity, indigenous knowledge has intuitive and spiritual dimensions that may be difficult for western scientists to accept. Taboos and moral precepts may not be rooted in any explanation acceptable to Western scientists. Additionally, the knowledge of tribal or rural peoples is generally qualitative as opposed to quantitative, and may be embedded in stories and myths which are difficult for western researchers to understand and interpret (Berkes, 1993, p. 4). Its embodiment in myth does not mean that such knowledge is static however, as it involves a constant adaptation to a changing environment, it is also cumulative and dynamic (Johnson, 1992, p. 4).

Indigenous knowledge is holistic as opposed to reductionistic, which, as it focuses on the interconnectedness of all aspects of an eco-system, makes it particularly valuable in terms of promoting sustainable development at the local level. While some scholars conclude that the local specificity of indigenous knowledge is a significant

barrier to its application to development (Stilltoe, 1998, p.228), indigenous knowledge research could be an effective means to ensure that the concerns of people at the local level are incorporated in policy. Researchers interested in studying indigenous knowledge are focussed on all aspects of the local people-ecosystem interaction (Grenier, 1998, p.7), in efforts to promote culturally appropriate and environmentally sustainable development initiatives.

Participatory Action Research has become the accepted method for studying indigenous knowledge, wherein the aboriginal community is involved in designing and implementing the project, and retains control over the results (Johnson, 1992, p.6). Participatory Action Research (PAR) puts the community members in the role of teachers with respect to their understanding of their local environments.

Unlike traditional social science research, PAR involves the researcher in the role of animator or facilitator, raising the consciousness within the community regarding the sources and structures of oppression (Fals-Borda, 1991). In recognition of the relationship of knowledge to power, the PAR researcher is also involved in the valuing and applying of local knowledge to problem solving. Development plans emanating from such a process would necessarily engender a respect for indigenous systems.

Such an alternative approach finds its theoretical basis in both eco-development and ethno-development. These can be considered to be overlapping principles "in situations where ethnic identity is territorially based" (Hettne, 1990, p. 194). While ethno-development is defined as "a development process appropriate for a particular ethnic group" (Stavenhagen, quoted in Hettne, 1990, p.193), eco-development also incorporates cultural concerns.

The concept of eco-development was first articulated at the UN Environment Conference in Stockholm in 1972, and was later promoted and developed by Ignacy Sachs, who defined it as:

A style of development that, in each eco-region calls for specific solutions to the particular problems of the region in the light of cultural as well as ecological data, and long term as well as immediate needs. Accordingly it operates with criteria of progress that are related to each particular case and adaptation to the environment plays an important role (Sachs quoted in Hettne, 1990, p. 186).

Eco-development involves a simultaneous development of people and their natural resource base. It emphasises self-sufficiency as well, thereby minimising external trade and dependence. Its concern is with improving the local situation, not with development based on an abstract concept like GNP (Hettne, 1990,p.188).

Since it recognises that environmental problems in developing nations are linked to livelihood concerns, it forms the theoretical basis for community based resource management. In this development approach, local communities are given control of the resource on which they depend, with the understanding that they will work towards its preservation. Communal systems of resource management are a fundamental component of the body of indigenous knowledge held by local communities. With modernisation and the imposition of an economic system based on private property, such systems have often broken down. Community based resource management thus demands not only a revitalisation of such local knowledge systems, but also a devolution of political power to the local user group through the renegotiation of communal land rights.

Participatory community institutions, with representative leadership, would need to be present for successful resource management, in order to ensure equity in distribution of resources. While most tribal systems were inherently egalitarian, the incursion of Western values which promote a commoditisation of resources, have in many cases caused community disintegration. The revival of the cultural notions of sacredness as well as equitable community structures would need to be revitalised as important components of traditional knowledge.

As such knowledge systems and territorial rights are culturally specific, development along these lines is also congruent with Stavenhagen's definition of ethno-development. Neglect of ethnic concerns in India, and elsewhere, has led to violent conflict. Such conflict is based on the idea, commonly held by Third World states, that ethnicity is an obstacle to modernisation. State sponsored atrocities committed against adivasis are common, and tribals in India have been associated with violent uprisings since the arrival of the British colonialists. These conflicts have generally revolved around the use of forests and other natural resources. In regions where adivasis comprise the majority of the population, the people are demanding tribal self-rule in order to protect their natural resources from incursions by outsiders. In the Jharkhand region, an adivasi homeland covering parts of Bihar, Orissa and West Bengal, the demand is for the creation of a separate state.

Demands for autonomy and control over natural resource use also underlie the philosophy of the famous Chipko movement in Uttar Pradesh. This environmental movement was initiated in 1977 by indigenous women in Advani who hugged trees to prevent the logging operations of a sporting goods company. Chipko (which literally means "to hug") supports development which is based on environmental justice and ecological democracy, and is thus critical of "scientific forestry" which involves the destruction of natural forest and its replacement by monocultures (Shiva, 1993). The movement has a spiritual basis as well as being based on ecological and livelihood concerns. The women gain strength for their struggle through "shatki" or nature's power (Shiva 1993,p.250). They also believe that each tree has a resident deity, and that the goddess of the forest-Van Devi will protect their families (Dwivedi, 1996, p161). Chipko is now committed to preserving the entire Himalayan Garwal region, and has a sister movement, Apikko which began in 1983, and is fighting to defend the Western Ghats from commercial interests.

There have also been examples of forest movements where trees were cut or seedlings of imported monocultures pulled. These movements oppose the so-called "social forestry" programs in India, which have often involved the promotion of monocultures of eucalyptus or teak. While such programs serve commercial needs, they also contribute to local impoverishment and environmental deterioration. In spite of their tremendous knowledge base, local people have rarely been consulted in afforestation programs. Unsurprisingly, the villagers revolt through these "pluck and plant" movements, replacing exotic monocultures with species that meet their needs. In protected areas, tribal people are demanding to be involved in conservation planning, rather than being evicted to peripheral regions in the name of "environmental protection" and "tribal development." These movements represent an opposition to the "scientific management" of India's forests in favour of indigenous management systems.

In cases where traditional low desire level lifestyles and community structures are intact, the claim by India's tribals that they are in the best position to protect and maintain the nation's remaining forests, is quite legitimate. As Johnson (1998) points out, while many traditional cultures have a well developed conservation ethic, in some cases this ethic has been eroded by modern influences or external events (Johnson, in Grenier, 1998, p.55). Adivasis have always held an acute awareness of the natural world around them which is reflected in their songs and folklore. However, with decreased forest access, such knowledge is not utilised and ceases to be functional (Varghese and Thekaekara, 1996, p.240). As previously mentioned, Walter Fernandez (1992) concludes, that impoverishment and political powerlessness, has in many cases led the symbiotic relationship of tribals with the forest to revert to one of "destructive dependence." In such instances tribals may be compelled by economic necessity to work for logging contractors or sell firewood to urban dwellers. Fernandez has noted a

dramatic increase in the incidence of female headloaders in Orissa as forest areas are decreasing (Fernandez, 1992).

Traditionally, the relationship of India's forest dwellers with their environment was a reciprocal one, with responsibilities demanding respectful behaviour towards trees, plants and all living things. Exclusive dependence on forest resources for their livelihood over centuries has led forest dwellers to develop specialised knowledge regarding biodiversity. Tribal agricultural experimentation has been known to actually increase the biodiversity of the region (Gadgil and Chandran, 1992, p.184). Thus the relationship was truly reciprocal in that the tribals ensured the preservation of the forest, and built their entire social, religious and economic systems, and hence their whole identity, on the forests around them. While the tribals could not survive without the forests, similarly these forests could not have survived without the mythical protection accorded to them (Deeney and Fernandez, 1992, p. 74).

Additionally, the animistic religions practised by most tribals promote respectful behaviour towards the environment, as all aspects of the environment are believed to have souls (Sitompul, 1983, p.19):

Traditional cultures live in an animated world. Mountains, forests, lakes, rivers, winds and the sun all have their presiding deities while each tree stone and animal may have or be a spirit. The spirits of the dead or of the unborn, may also be eternally present, acting powerfully in the living world, part of the endless circle of time (Suzuki, 1997, p. 189).

Sacredness is thus a major component of conservation in indigenous communities and is based on the idea that there is no separation between humans and nature, the living and the dead.

While specific tribal practices such as shifting cultivation are often regarded by governments as environmentally destructive, research into these systems has indicated that under appropriate conditions of population and forest health, shifting cultivation was sustainable. Even colonial officials were forced to admit that shifting cultivation had not

affected forest cover. These factors have led anthropologists and historians to conclude that the case against shifting cultivators was based more upon a desire to extract forest wealth and annex tribal labour than on environmental concerns (Baviskar, 1996, p.123).

Shifting cultivation or "swidden" agricultural systems have been described as conservation oriented agro-forestry. The intercropping of plants is done in a manner that ensures nutrient distribution as well as preventing water run off and soil erosion on the steep slopes. Broad leaf species are left to provide canopy cover and older trees are also left in the fields due to their nitrogen fixing capacities (Burman, 1997, p. 176). Shifting cultivation was not practised on slopes over 20 degrees and plots were traditionally cultivated with 18-20 year fallow periods (Deeney and Fernandez, 1992, p.67). Due to extensive deforestation these periods have recently been reduced, however, sustainability can still be ensured by planting sufficient leguminous root plants. Sustainability was also fostered by establishing a religious link. Most tribals began the cultivation season with a ritual to ask the forest goddess not only to give them a good harvest, but also to regenerate the forest (Fernandez, Menon, Viegas, 1988, in Fernandez, 1997, p.28).

Shifting cultivators and other tribals also instituted a system of sacred groves that promoted forest protection. Sacred groves are patches of forest dedicated to specific deities. It is believed that the deities representing the various elements of sun, rain, fire and water reside in these groves (Chaudhuri, 1997, p.239). There are strong taboos regarding the preservation of sacred groves. In some such groves even the extraction of dead or fallen trees was not permitted for fear of inviting the wrath of the deities (Pasha, 1996, p.96).

In some cases, as tribals have no written land records, these groves provide the basis of territorial affinity (Burman, 1997, p. 177). Sacred groves are also the centre of cultural activities. In Kerala, sacred groves have become part of the folklore and have

been incorporated into mainstream cultural tradition (Gadgil and Chandran, 1992, p.184). However, state ownership under the British colonial government, coupled with commercial exploitation for coffee and tea plantations, has in many cases destroyed these indigenous landmarks.

Indigenous forest dwellers also have many traditions of co-operation which discourage selfishness and overexploitation. For instance, the Warlis of Maharashtra pluck their early monsoon tubers only on one particular day, which not only ensures that there is a nearly equal share received by all members of the community, but also that there will be a regeneration of this species (Perriera, 1992, p.200). Similarly, the agricultural practices of the Warlis are always sustainable, even at the cost of low output and immediate income. Sustainability assumes priority over production for cultures who will occupy a specified region over a period of centuries (Perreira, 1992, p.197). Rather than looking at the forest as a "natural resource", many indigenous cultures believe that they are holding the land of their ancestors in trust for future generations (Colchester, 1994, p. 80-82).

Some forest management strategies involved not only co-operation within the community but also between different tribal groups. Hockings (1997) notes that the tribals in the Nilgiris region exploited complementary resource niches and established barter and trade relations between them. Gadgil and Malhotra (1983) also note a system of resource extraction complementarity between different tribes and castes (Gadgil and Guha, 1995, p.141). Additionally, if the population of a village increased beyond a sustainable level, a section of the tribe would migrate to avoid over exploitation of the local forest resources (Menon, 1992 in Venkateswaran, 1995, p. 57). Other strategies include prohibiting fodder collection until seed dispersal has taken place (Ramakrishnan and Parthaik, in Baviskar, 1992, p. 93), or ensuring seed dispersal during the collection process. Some tribes divided species into three categories: those

that could not be cut or killed at all, those that could be used only on certain occasions; and those that could be cut or killed generally but only according to certain rules of distribution (Deeney and Fernandez, 1992 p.74).

Renewable forms of non -timber forest produce (NTFP) forms the basis of tribal livelihoods in many regions throughout India. In the Bastar region of Madhya Pradesh, it has been noted that 75% of tribal income comes from NTFP (Chaudhuri, 1997, p. 237). Forest products also provide famine foods, fodder, fuel and medicines. In India the forest may be the only source of medicines available for much of the rural population (Poffenberger, 1996, p. 276-277). Often supernatural practices accompany healing rituals utilising herbal medicines, as the medicine man invokes forest gods or ancestors to assist with the healing, or inform the tribe of the reason for the illness.

Sickness, death and all aspects of the tribal life cycle are connected with the forest. The Birhors of Jharkhand utilise different leaves, flowers, barks and roots in their ceremonies. "During the observances of different rites the association with different trees of the forest becomes so conspicuous that the trees seem to be considered part and parcel of the human communities" (Sarkar, 1997, p.273). This strong connection is reflected in their name: their name Bir =forest, hor=man. The Birhors perform a number of rituals invoking and propitiating deities to ensure a good hunt, an adequate supply of tubers and roots, or protection from dangerous animals or malevolent spirits (Sarkar, 1997, p. 271). Such festivals serve to retain community cohesiveness and remind them of their interconnection with other living things, as well as with the gods and their ancestors. Each of the tribal clans of the Birhors is connected to a totemic association with a plant or animal. The totemic origin of the clan is explained through the mythological stories depicting the supernatural connection with them. The clan members show special reverence to these totem species (Sarkar, 1997, p.272).

Bamboo assumes an almost totemic importance for the Soligas of Karnataka, as their name means "the one who came from within a Bamboo" (Somasundaran and Kibe, 1990, p.1). Bamboo is an important source of food and building material for tribals, found commonly in the South. However, if it is not prepared properly, it can be poisonous. To preserve Bamboo, tribals use a technique called coppicing. The tribals would cut a few Bamboos at a certain angle to ensure that the thorny cover of branches at the base of the clump was not disturbed. This thorny cover prevented their grazing and ensured the regeneration of Bamboo. Paper mills, on the contrary, clear cut the area and then blame villagers grazing animals for destroying Bamboo (Fernandes, 1992, p. 237).

Among many tribal groups, Mahua, Banyan and Peepal trees were worshipped, as were Fig, Sal and Neem trees. Many tribals believe that the Banyan tree is the abode of the gods and ensures good health. A Peepal tree is the abode of a goddess (Burman, 1997, p. 177). A tree's sacred status is usually based on its practical use to the community. Neem trees, for instance, are very useful to tribals as their leaves and pods have medicinal value as well as being used as an insect repellent.

In the Chotanagpur plateau, Sal trees form the basis of tribal life as they have multiple uses as food, fodder and medicine. The Khonds of Orissa will not cut the Sal as it was believed that this tree gave its sap to two children who had given birth to the whole tribe (Venkateswaran, 1995, p.57). Birth, marriage and death rites cannot be performed without incorporating worship to this tree. The tribal priest offers sacrifice in the grove of the Sal (Sarkar, 1997, p.268). This tree is vitally important to all of the tribes in this region, including the Santhals, Khonds and Birhors. Violating custom by cutting a sacred tree would apparently bring much grief to the community. Crops will not grow and forest produce will not be available. Interestingly, these beliefs seemed to

persist even after integration into the modern economy, when the tree's practical use was no longer relevant.

This process of integration has created many problems for tribals, as they lose their connection to the forest and thus their distinct cultural identity, while being incorporated into the market economy in a very disadvantageous position, often as casual seasonal labour. In spite of four decades of "planned development," the government has been unable to arrest their increasing marginalisation and impoverishment. The interconnections between this socio-economic deprivation and the deteriorating environmental situation will form the crux of this analysis. While tribals have many traditions and practices that promote sustainability, due to denial of access to forest areas and lack of involvement in resource management, such indigenous systems are also disappearing. The many contradictory policies in both the areas of forestry and tribal development have done little to arrest this mutual decline. An historical overview of forest legislation and tribal development policies is requisite to understanding the nature of these contradictions.

CHAPTER TWO
ADIVASIS IN INDIA
THE POLITICAL AND HISTORICAL CONTEXT

THE NATIONAL SITUATION

India's adivasi population is approximately 70 million people or nearly 8% of its total population (Venkateswaran, 1996, p. 2). This number amounts to 23% of the world's indigenous people, which, in spite of the government's official denial of their existence, makes India the nation with the largest indigenous population world wide (Cheria et. al. 1997, p. 16).

Definitions of who is and who isn't indigenous have themselves been contentious, as the government does provide certain benefits to the "Scheduled Tribes" designated in article 342 of the Indian constitution. Such benefits include reserved places in education, civil service and nationalised industries. As such, they are coveted by non-tribals who attempt to attain status as "scheduled tribes." Unfortunately, problems of remoteness, poverty and prejudice often prevent genuine adivasis from taking advantage of these provisions (Rehman, 1998, p. 99). While this list has been altered on many occasions since its inception, another exercise that has been used to deny tribal rights through "the politics of inclusion and exclusion", generally speaking, a tribe is considered to be:

a social group, the members of which live in a common territory, have a common dialect, uniform social organisation, and possess cultural homogeneity having a common ancestor, political organisation and religious pattern (Chaudhuri, 1997, p. 233).

These supposedly non-existent adivasis reside primarily in three distinct regions: the forested Himalayan region in the states of Himachel Pradesh, Arunchal Pradesh and northern Uttar Pradesh, the Central belt encompassing Madya Pradesh, Orissa and

Bihar (the Jharkhand region) and in the Western Ghat Mountains of the south. Madhya Pradesh has the largest population of tribals in the country. Wherever their precise geographic location, over 95% of the scheduled tribes reside in remote rural areas and suffer from economic exploitation (Rehman, 1998, p. 99). These tribals traditionally existed in a situation of mutual dependence on their forest environments, surviving through a combination of gathering, hunting and shifting cultivation. Their social life was intertwined with the agricultural cycle and forest produce (Deeney and Fernandez, 1992 p, 74). Relationships with non-tribals and other tribal groups were traditionally characterised by bartering and mutual exchange. Tribal rights in forests were never clearly defined, because they were not challenged. Local rulers may have demanded tribute, or utilised tribal help with hunting parties, but conflict was minimal.

This situation changed drastically with the arrival of the British, who introduced the concept of private property, and realising their substantial revenue generating capacity, subsequently took over the Indian forest lands, declaring them the property of the state. The Indian Forest Department was set up by the colonial government in 1864, and now controls over one-fifth of the nation's land area, making it India's largest landlord with the power to affect the lives of almost every rural inhabitant (Gadgil and Guha, 1995, p. 140). While deforestation in the form of industrial development proceeded rapidly under British rule, forest dwelling tribals were penalised by a succession of increasingly stringent "forest laws," which prevented them from attaining their traditional self-sufficient livelihoods from forest resources.

The Indian Forest Act of 1878 created the system of reserved, protected and village forests, a classification which is still in existence, and evicted tribals from land they had traditionally occupied (Dasgupta, 1997, p. 106). Generally no subsistence activities are allowed in reserved forests, while some gathering can take place in protected forests, and village forests are for the use of rural inhabitants. Not only are the

specific regulations unclear, but they are enforced in a discretionary manner by local forest officials. Thus tribals are often not aware of the extent of their rights in their local forests. This became increasingly clear by the variety of responses provided by tribals, through the interview process, regarding permissible forest activities in their areas.

The subsequent forest policies of 1894, 1927 and 1935 further regulated and restricted the rights of forest dwellers (Chaudhuri, 1997, p 234-235), while the British proceeded with the "scientific management" of India's forests. This management entailed clear cutting and the development of monocultural plantations that have limited, if any, use for local people. Timber was needed for railway ties and other construction projects, both in the colony and back in Britain. Additionally, forests were viewed as an obstruction to agricultural development, and were cleared to make way for plantation agriculture.



Teak Monoculture

Repressive forest legislation, as well as the destruction and extraction of their forests under the British, led the tribals to become heavily involved in the movement for an independent India. The British recognised the volatility of the tribal regions and administered them indirectly, with District Governors having some discretion regarding the application of national law. Today these areas are referred to as “scheduled areas” and have been dealt with through a combination of cooption through welfare measures, and repression through the use of police and paramilitary forces (Rehman, 1998, p.73).

Most government development programs have attempted to integrate tribals with the mainstream rather than protect their unique cultures. The majority Hindu population, while not regarding them as “unclean” in the manner of untouchables, consider tribals to be primitive, and they often face prejudice and violence from outsiders (Rehman, 1998, p. 100). Police units, placed in tribal areas ostensibly to provide protection to tribals against atrocities, have instead ended up functioning as agents of repression.

Scheduled areas are generally resource rich regions, which since independence, have seen an intensification of activities such as mining, logging and hydro projects. While the policy of the independent government was to exploit adivasi areas without exploiting adivasis in the process (Chaudhuri, 1997, p.144), it is obvious that the latter was unavoidable. (Venkatswaran, 1996, p. 2). Nehru’s famous “Panscheel” policy, guiding dealings on adivasis, specifically dictated that adivasi rights in land and forest should be respected, and that nothing should be imposed upon them (Chaudhuri, 1997, p.144). However, in reality, planned development and the resulting expansion into these previously remote scheduled areas led to exploitation. This “development” rather encourages the influx of a migrant population and an easy flow of resources to the outside:

Weakened by the measures adopted by the British administration, the adivasis were subject to the mercy of Zamindars (landlords),

moneylenders liquor, forest contractors and forest officials (Solidarity Document, 1997, p3).

Areas with a large minority of tribals are dealt with under the fifth schedule.

Under the provisions of this schedule, transfer of land from tribals to non-tribals is prohibited and money lending is regulated. A Tribal Advisory Council made up of 75% tribal MLAs, supposedly monitors the tribal situation and makes recommendations to the government. In practice, few of these protective measures are followed, tribal advisory councils rarely meet, and land alienation and exploitative money lending continue to take place in tribal areas. Majority regions are dealt with under the sixth schedule, which permits autonomous district councils theoretically providing the foundation for self rule (Dasgupta, 1997, p. 122). Due to the failure of the protective measures provided by the fifth schedule, today tribal organisations are lobbying to have more areas brought under the sixth schedule, in order that they may pursue autonomous development.

Without adequate protection, an influx of outsiders into tribal areas ensured that these communally owned territories were easily alienated by unscrupulous outsiders. Such alienation took place on an individual basis, wherein land was sold for a pittance, leaving the landless tribal to the mercy of the moneylender, as well as on a large scale. In Kerala, tribals are seeking redress through the Restoration of Tribal Lands Act, 1975, which to date has proven impossible for the government to implement. In Karnataka, tribals are protesting the long-term lease of 2900 acres of fertile land to an industrialist from Bombay, which took place without their knowledge. The huts of the resident Jenu Kurumbas and Soligas were bulldozed, and they were forced to take refuge in the forest. All this took place with the complicity and involvement of Forest Department officials (Cheria et. al. 1997, p. 53).

The alienation of tribal forest land has led simultaneously to the degradation of the forest resources and the impoverishment of tribals, as the forests on which they have

depended increasingly became a source of raw material for industry. Such industrial demands, the clearing of forests for agriculture, tea and coffee plantations and other uses has led to a situation where actual forest cover was determined to be 10.63% of the geographical area of India in 1991. Further, it has been estimated that India has been losing 1.5 million hectares of forest cover annually (Kaur 1991, in Venkatasaran, 1995, p. 55).



Logging Stockpiles in Kushalnagar

The first Forest Policy of the Independent State clearly retained the colonial mentality that forest destruction was caused by local people, and that these forests must be “protected” for industrial use. Thus national prerogatives were to take priority over local needs:

The use of forests should in no event be permitted at the cost of national interest. The accident of a village being situated close to a forest does not prejudice the right of the country as a whole to receive the benefit of a national asset (Chaudhuri, 1997, p. 235)

During the second half of this century, villagers increasingly found their local forests being reserved and nationalised, and rights to collect forest products became "privileges" which could be revoked at the discretion of the local forest officials (Poffenberger and Singh, 1996, p. 60). At the same time, state sponsored destruction of the forests proceeded with the introduction of forest contractors, who lined the pockets of politicians with their new -found wealth, thus ensuring that the unsustainable practices continued. In spite of the dramatic evidence that deforestation was caused by such extensive logging, the National Commission on Agriculture issued an influential report in 1976, which put the blame for forest destruction squarely on the tribals and other rural people, and therefore recommended further restrictions on subsistence use.

While the Forest Conservation Act of 1980 placed controls on logging and attempted to emphasise the ecological and social importance of forest resources, it retained the legacy of centralised bureaucratic control. This has led to the eviction of tribals from wildlife parks and other protected areas in order to promote conservation. Forest Legislation following in the wake of this act became increasingly repressive, until 1988 when the political climate conducive to Joint Forest Management initiatives led to a more enlightened piece of legislation. While in 1995 NGOs from all over the country got together to devise a people oriented draft forest bill, this document has never been legislated and the 1988 forest policy remains in place. Unfortunately, it still retains exclusive state ownership and control, retaining the dichotomy between national and people's needs (Fernandez, 1992, p. 230).

This dichotomy is nowhere more apparent than in the plethora of river valley projects that have displaced thousands of tribals from their homelands. Most such projects result in the uprooting of innumerable tribal villages in order to fulfil the national objectives of supplying power and water to urban dwellers, or for industrial development (Dasgupta, 1997, p. 116). Economic exploitation by outsiders increases as the tribals'

livelihood opportunities are denied, either through restrictive legislation as discussed, or by actual physical displacement. By far the largest majority of those displaced by dams, mines and other development projects are tribals. As they cannot produce land titles, they are given inadequate if any compensation. There is still no policy regarding compensation for common property such as that held by tribals.

Often the same people are displaced several times by different projects, and as the employment opportunities created by such schemes often demand technical skills which tribals lack, there is no alternative employment provided by the project. The effects of displacement are magnified when formerly cohesive social units are broken up and dispersed among non-tribal populations. These social networks are vital life support mechanisms for most tribal communities in terms of community self help arrangements, labour exchange, child care reciprocity and other informal arrangements (Parasuraman, 1998, p. 236-237). It is apparent that tribals suffer from all of the seven dimensions of impoverishment that Michael Cernea (1990) has identified as being induced by displacement. These include: landlessness, joblessness, homelessness, marginalisation, food insecurity, morbidity and social disarticulation (quoted in Parasuraman, 1998, p. 236-237).

Through the process of displacement, community management systems collapse and cultural integrity is shattered. Tribal knowledge systems suffer erosion as they are removed from the ecosystems upon which this knowledge is based. The environmental impact of massive displacements is also incredibly destructive, as people are forced to overexploit marginal lands, or compete with others for scarce resources. This is the paradox of displacing tribals from protected areas, supposedly for reasons of environmental protection. While the core area of the park may remain a pristine wilderness, (an unlikely scenario given the plethora of teak plantations within national park areas), the outskirts of the protected area will become increasingly degraded due to

inappropriate resettlement arrangements. Such a paradoxical situation is the result of the imposition of reductionistic Western scientific thinking, in which people are separated from nature, and the preservation of biodiversity is isolated from the process of production. The latter, according to the principles of "scientific management," becomes the further development of monocultures (Shiva, 1993).

Tribals thrust into the modern cash economy in such a disadvantaged position will also tend to disregard the value of traditional knowledge systems, as they strive to acquire the information needed to adapt to their changed situation. As will become apparent in the following discussion, some groups adapt to this modern context much more easily than others. Tribals groups such as the Nayakers, who have retained a strong forest dependent ethic, become increasingly marginalised.

THE SOUTHERN CONTEXT

This process of marginalisation was instigated in the South through an increasing influx of settlers into the Nilgiri Biosphere region. Prior to this invasion by settlers, each of the groups in the Nilgiris successfully exploited an ecological niche, and these various livelihood practices complemented each other (Hockings, 1997, p. 4). This complementarity was disrupted as the increase in the non-tribal population led to land alienation and other forms of exploitation. A situation of political powerlessness now prevails, as previously majority tribal populations are now a minority in their own homelands.

In Kerala, this process began in WWII, when rice flows from Burma were cut off, the colonial government initiated a "Grow More Food" campaign and encouraged many settlers from South Kerala to move to Wayanad. Many incentives were offered to these pioneers to clear the Wayanad forests for agriculture. The Malayalis quickly took over

large tracts of tribal land (Thekkekara, 1993, p.70), and the previously natural forests were replaced by tea and coffee plantations. As the remaining forest areas were classed as "reserved" by the Forest Department, harassment and arrests for "forest crimes" among tribals became increasingly common (Thekkekara, 1993 p.70).

With the growth of the cash economy, the Kerala Christians introduced alcohol to the tribals, which further contributed to the destruction of family and community life. Women were in an increasingly vulnerable situation, subject not only to increased violence and abuse from partners under the influence of alcohol, they also became victims of sexual exploitation by outsiders. As tribal culture is not restrictive regarding pre-marital sexuality, tribal women are often seen by caste Hindus as being "easy." While a sexual union may be viewed by the woman as equivalent to, or leading to, a marriage, they are most often abandoned by their non-tribal partners, leading to an increase in the phenomenon of "unwed mothers." This is a situation that the tribal organisations are trying to address, by making errant fathers provide some sort of financial support.

Landless and frequently addicted to alcohol, it was easy to lure the indebted tribals into a situation of bonded labour. Paniyans, in particular, are associated with this situation. One of the devastating consequences of the bonded labour system was the imposition of landlord language, culture and religion, resulting in the denigration of tribal ethos. Additionally, as with the slave trade in the Americas, family members could be traded and sold at will (Thekkekara, 1993, p. 69). While The Bonded Labour Abolition Ordinance of 1975 was enacted for the protection of Paniyans by the government of Tamil Nadu (arthasarathy, 1997,p. 256), with similar legislation in Kerala and Karnataka, the practice still continues in some areas.

As a result of tribal politicisation, there have been some attempts to redress the wrong-doings that took place as a result of these migration policies. In 1975 the Kerala

Scheduled Tribes Restriction on Transfer of Lands and Restoration of Alienated Lands was enacted (Cheria, 1997, p. 120). However, this piece of legislation has proven impossible to implement due to widespread opposition. In many cases, land has changed hands several times since its original seizure from tribal owners. The government has attempted to modify the legislation, restoring only those lands alienated after 1980, for instance. Such moves by the government have met with severe resistance from tribal organisations and NGOs.

While explicit government sponsored immigration did not take place in Karnataka and Tamil Nadu, the state government granted land titles to anyone wishing to establish tea estates through the so-called patta system. As tribals cannot produce patta certificates, this system led to land alienation and displacement. Settlers intending to develop tea and coffee plantations were issued pattas (land ownership certificates), by the government without any recognition of tribal rights. As more and more forest areas were cleared for tea and coffee plantations, with remaining reserved forests subject to strict regulations, the forest dwelling tribals lost all means of livelihood and were displaced onto the plains (Cheria, 1997, p. 42). Most are now labouring on tea, coffee or other agricultural plantations. The governments of Tamil Nadu and Karnataka have not even attempted to redress tribal land losses through legislative measures.

In addition to tea and coffee plantations, tribals also lost out to monocultural plantations of teak and eucalyptus, replacing natural forests in the region. As mentioned, there has been resistance to such manipulation of the natural environment. For instance, popular resistance in Karnataka, wherein Eucalyptus seedlings were uprooted and replaced with natural species, led to the suspension of a World Bank social forestry project and to a redefinition of social forestry policy in this state (Colchester, 1994, p.83). Natural forests in Wayanad ironically face destruction due to the plans of the forest Department to convert the Kuruva Island area into a herbarium for

medicinal plants, destroying thousands of naturally occurring ayurvedic medicines in the process (Chaudhuri, 1997, p. 241).

The tribal situation in the region became worse still following the enactment of the Wildlife Preservation Act in 1972. At this time, the responsibility for the management of protected areas was placed in the hands of the Chief Warden, with no scope for involvement by local communities (Kothari, p. 29, 1996). The original creation of these reserves resulted in the terrorizing and driving out of adivasis, and this process is continuing with the sanction of the government in the name of forest and wildlife protection. Such state-sponsored atrocities against indigenous peoples have increased during times of political crisis. For instance, in Kerala tribal families were harassed and tortured to encourage them to endorse the proposed government annulment of the Land Restoration Act (Cheria et al., 1997, p. 175). Often security forces turn a blind eye towards atrocities committed against adivasis by others, passing murders off as suicide, not investigating or prosecuting rapes, etc.

Atrocities conducted in connection with the proposed Ecodevelopment plan include cases of Forest Department officials burning huts or having them purposely trampled by tamed elephants. The Ecodevelopment Plan in India is supported by the Global Environment Facility through the World Bank. It is a pilot project to conserve biodiversity in seven protected areas with plans to extend to a further 200 (Cheria et al., 1997, p. 188). From the perspective of the local tribals and NGOs, the purpose of this conservation plan is to open up India's genetic wealth to Western exploitation (Cheria et al., 1997, p.188). At the same time, the plan proposes to evict tribals, the original protectors and creators of this biodiversity, from the park area. As mentioned, the adivasis in Nagarhole have been actively protesting the Ecodevelopment plan.

At the same time, resistance has also been focussed on removing the Taj Hotel from the park area. The construction of this ostentatious elite hotel is seen to be totally at odds with the objectives of environmental conservation. While the Adivasis are facing eviction, the construction of the Taj hotel within the park area, ostensibly for the enjoyment of eco-tourists, ensures the promotion of unsustainable activities, and possibly the removal of biodiversity by foreign researchers. At the time of this writing, construction on the Taj hotels had stopped in accordance with a court order. A final decision at the Supreme Court will seal the fate of the Taj.



The Abandoned Taj Hotel

The politicisation of the adivasis in the South reached a turning point with the Adivasis Sangaman of 1992, held in Manantavody, Wayanad. This historic meeting was held on October 12th, to commemorate 500 years of indigenous oppression world-wide. It represented a coming together of all of the local level Sanghas in the South zone to

express their issues and express their solidarity with one another (CORD staff, personal communications).

The Manantavody gathering was followed by a further Sangaman in Kushalnagar, Coorg, in 1993, which was intended to find the ways and means to tackle the issues identified at the first Sangaman (Cheria et al., 1997, p. 97). It became apparent that the adivasis could not depend on government organisations to take up their issues for them, but rather that they would have to take on the struggle themselves. Even NGOs took on a more supportive, background role following this Sangaman. Land alienation and other forms of exploitation have diminished following these expressions of solidarity. The President of the South Zone Adivasi Forum, tribal leader C.K. Janu, expressed the importance of being able to overcome the artificial divisions among adivasis, in order to form a united political front (Cheria et al., 1997, p.98). One problem which may need to be addressed in this regard is the lack of Paniya leadership among the tribal organisations, in spite of their majority status in some parts of the region, i.e. Wayanad- Gudalur (Cheria et al, 1997, p.105).

Paniyans are thus one of the primary groups represented in this case study, in addition to Kurumbas, Soligas and Nayakers. The word Paniyan literally translated means "worker," and Paniyans have historically been bonded labourers first to the Chetty landlords and then to the Nayar migrants. This identification was so strong that a dead Paniyan was once buried with his tools, and thought to be working for the landlord even in the underworld (Jacob, 1998, p. 6). They now primarily work as casual labourers on plantations or farms. (Varghese and Thekkekara, 1996, p. 237). While they have their own language, as they are most populous in Kerala state, adult Paniyas will speak Malayalam. Within the complex and highly politicised Kerala state, Paniyans are easily manipulated by the various political parties through various inducements. One of the purposes of the tribal organisations is to end this sort of manipulation of the adivasis.

The Jenu Kurumbas retain a strong connection to the forest. Their main metaphor is "forest as parent" who will provide them with all of their needs (Bird David, 1987, p 191). The nuclear family and conjugal unit are the primary units of social life. These groups have a great reverence for the spirits of the forest and for their ancestors. Their religion is based on animism and nature worship. While many of them labour on plantations, they will also engage in forest gathering activities if circumstances permit. One of their main activities is honey collection, hence their name (jen means honey). They are the dominant group within the Nagarhole region.

The Nayakers or Kattunaikens are a closely related tribe, which are often not distinguished from Jenu Kurumbas in the literature. Nayakers are most frequently located in Kerala and Tamil Nadu. They seemed to be the most involved in forest collection, both for marketing and personal use, and the least likely to be involved in either outside labour or tribal political organisations. Consequently they were often the worst off, both in terms of economic and health status. Having retained a sole dependence on the forest for food and medicines, they appeared to be, from my experience, less able to access outside services and interact with the dominant culture.

Bette Kurumbas often share the same physical space with Jenu Kurumbas. For instance, in Murkala, a village in Nagarhole, the village is divided in half with a brush fence, one side for Jenu and the other side for Bette Kurumbas. The Kurumba settlements are known as haadis. While traditionally Bette Kurumbas lived by shifting cultivation, gathering and fishing, many now work for the Forest Department, as labourers, fire fighters and guides (Thekkekara and Varghese, 1996, p.237).

The Soligas led a semi-nomadic, life subsisting on minor forest produce small game and shifting cultivation. As mentioned, the word Soliga means "the one who has come from within Bamboo." Soliga is also close to the Tamil word for thicket, referring to the dense forest areas where the Soligas live (Somasundaram and Kibe, 1990, p.1).

Ragi and maize are the staple food crops of the Soligas. Their settlements are called podus and consist of anywhere from 10-50 huts. They have a great reverence for the forest, and the majority reside in or near the dry deciduous forest regions of Karnataka. Their religion is based on animism and nature worship. Their language, Soliganudi, is written in the Kannada script (Karnataka's state language).

These five groups, among others in the region, such as Yerouvas, Irulas, Mullukurumbas and Adiyas (to whom I did not have much opportunity to speak), are united in their common resistance to unjust forest legislation, land alienation, atrocities and oppression of all forms. In their struggles, they are supported by a core group of NGOs. It was these same NGOs which made my research in the Nilgiris region possible.

CHAPTER THREE: METHODOLOGY AND NGO CONTEXT

My objective in studying tribals in South India was to gain insight into the sustainability of their forest use practices, the manner in which their religious beliefs supported such practices, how their lifestyles may have changed due to modernisation, and what their current development needs were. Additionally, I was interested in the potential of incorporating such ecologically sustainable lifestyles into resource management and development programs. Given the nature of the research, it was logical to frame it in the context of a case study as:

Case studies are the preferred strategy when how or why questions are being posed, when the investigator has little control over events and when the focus is on a contemporary phenomenon within some real life context... the case study allows an investigator to retain the holistic and meaningful characteristics of real life events (Yin, 1994, p.13-14).

The geographical boundaries of the case area were not pre-arranged, but rather developed through the course of the work. In fact, while I was initially going to do all of my research in Kerala, I at one point contemplated involvement in a project in Uttar Kannada, which would have made all of my previous work invalid in terms of a case study, as it would have involved an entirely different set of tribal groups. In the end, as indigenous groups are not restricted by state boundaries, it made more sense to cover the Nilgiri Biosphere region as a whole.

My case study utilised qualitative research methods, as I developed an open-ended questionnaire which explored tribal forest practices, as well as other aspects of their life, such as religious beliefs, gender roles, health and education. (See appendix one). Like most indigenous knowledge research, my study did not involve the inclusion of any quantitative indicators. It was intended rather to illuminate the context of tribal life, as well as provide insights into the interconnections between cultural change and

external forces and developments. For these purposes, qualitative research was especially appropriate.

As the reality of village life was analysed through the perspective of the tribals themselves, the subjects of the research, the case study can be labelled interpretive (Guba and Lincoln, 1982). Such research approaches, as they do attempt to illuminate cultural context and acknowledge the validity of indigenous knowledge, tend to address issues of control over the direction of development and control of resources (Marsden and Oakley, 1990, p. 45). Thus the adoption of such methodologies is essential to research on sustainable development.

In contrast, research conducted from within a modernisation Development paradigm may focus on measurable factors like profit maximisation or issues of supply and demand. This perspective is based on a compartmentalised world view, which involves the separation of humans from nature, and consequently entails working with decontextualised empirical data. With reference to impact assessments such as those frequently conducted for World Bank Projects like the proposed Ecodevelopment plan, the destruction of tribal livelihoods and the increase in culturally specific poverty may be subsumed under macro-economic indicators. In this case, such indicators might include an increase in "eco-tourists." Part of this current World Bank Assessment was to allegedly have involved extensive NGO consultations. These consultations, while documented, never in fact, took place (Cheria et al., 1997, p. 181).

Prior to putting together a questionnaire geared to my discussions with tribals, I visited with a variety of these NGOs to find out what their philosophies and roles in relation to tribal development were. Basing myself at the beautiful Gurukula Botanical Sanctuary, an ashram in Wayanad Kerala, I conducted side trips within Kerala as well as in neighbouring Tamil Nadu and Karnataka. My initial visits with NGOs took place at the

start of the hot season- March and April, while most of my interviews with tribals took place during the monsoon, July-August, after I returned from Nepal.

On my first side trip to Tamil Nadu, I met with the staff of Keystone in Kotagiri, who are involved in tribal development with an entry point of beekeeping and honey marketing. After meeting with Keystone staff, I conducted some preliminary interviews with local Paniyans and Nayakers, by contracting with two translators in nearby Masinagudi. I next journeyed to Mysore and made an unsuccessful attempt to meet with the famous Dr. Sudarshan in the B.R. Hills. After missing several buses and having another meeting to attend in Kotagiri, I reluctantly returned to Tamil Nadu. En route back to Wayanad, I met with ACCORD- Action for Community Rehabilitation and Development in Gudalur, who are well known for their work with adivasis around health and economic development.

Next I journeyed to Attapaddy, south of Wayanad in Kerala, where I met with the Attapaddy Hill Area Development Society, which is working with both tribals and non-tribals around sustainable watershed development and eco-restoration. This part of the journey was particularly challenging, as the area is very isolated and politically volatile. The key people in the organisation were too busy to meet with me, and while I was waiting I was forced to register with the police. The socially uncomfortable male-dominated hotel, became even less comfortable following a bus crash which shattered its front entrance.

After recovering from the heat by returning to Wayanad, I made a second and this time successful attempt to meet with Dr. Sudarshan at VGKK-Vivekananda Girijana Kalyana Kendra, located in the Bilgiri Ranga Hills near Mysore, Karnataka. I spoke with staff about their work with the local Soligas in health, education and economic development, the latter including the marketing and sustainable development of non-timber forest products. At this point, I was looking for somewhere to base my work for a

longer period of time, feeling dissatisfied with long journeys on local transportation for only relatively brief visits with NGO staff. Basing myself at VGKK was not going to be feasible however, due to the presence of a sandalwood smuggler. Through connections at VGKK, I was fortunate to find out about a Canadian-funded project that focused on Aboriginal Women and Forestry in Uttar Kannada, in North Central Karnataka. It seemed as though my involvement in this project at a later date would be quite possible.

Upon returning to South India from Nepal two months later, I discovered that this project had been interminably delayed, forcing me to explore other options. At this time, I visited the Institute of Social and Economic Change in Bangalore, which has a vast library including a great deal of material on development issues. Unfortunately it was miles out of town and difficult for rickshaw drivers to locate, as well as being subject to unusual hours of closure! I also obtained a great deal of literature from Indian Social Institute in central Bangalore, as well as from some bookstores in the famous MG Road area. All these books and articles weighed my backpack down considerably!

Professors at ISEC, as well as staff from an umbrella organisation of all NGOs in Karnataka, (known as Fevord-K), both directed me to CORD- the Coorg Organisation for Rural Development in Kushalnagar. It was here that I resided for one month, accompanying CORD staff on many of their outings and meetings. Most of my interviews were conducted whenever a staff member was free to provide translation services. Thus the bulk of my research could not have been completed without their help.

Interviews were almost always conducted in the tribal village, where the respondents felt most comfortable. Sometimes they were held inside mud huts, as much of my research was conducted during the monsoon. Often they were held outside, and different plants and roots could be pointed out during the interview and collection or

digging processes demonstrated. On one occasion, a woman brought out her whole herbal medicine store to show me. Generally interviews were conducted on an individual basis, but on some occasions a group would gather and others would contribute.

There were some limitations imposed by the translation process. Often translators would place their own interpretations on the information, or delete questions or responses that they did not consider relevant. In addition, hypothetical questions were outside of their understanding of the English language. In light of some of the difficulties I encountered, I would periodically revise my questionnaire. I soon realised that it had to be adapted in order to attain accurate responses. For instance, the answers to general questions regarding taboos and limitations on forest collection would indicate that there were no such traditional practices to promote sustainability. When this question was rephrased to ask how the regeneration of a specific plant or root is ensured, the details of this practice were revealed. Additionally, I had to tailor my questions to the specific context, and did not always ask every question on my list.

After four weeks of conducting interviews and residing at the CORD office, their staff were due to have a meeting lasting several days (in Kannada), to discuss the future direction of their organisation. At this juncture, I returned to my initial base at the Gurukula Botanical Sanctuary in Wayanad, Kerala, where I conducted further interviews with local tribals. I also went to nearby Manantavady to meet with Solidarity, an organisation that had been very actively involved in organising tribals in Wayanad. Solidarity had a strong role to play in the 1992 Sangaman, a large demonstration of tribals in the region. Presently Solidarity runs a library and is a support organisation for tribals, but has little direct involvement. My timing was such that I was also able to attend a demonstration against the damming of the Manantavady River, at which the internationally famous Methka Pratkan was speaking (in English!). This slated project will

flood the Gurukula Sanctuary if it goes ahead.



Demonstration against the Manantavoddy River Dam



Methka Pratka speaking at the demonstration

Next I went to Sultan Battery to meet with Shreyas, a Christian-oriented tribal development organisation, through which I was able to interview several tribals as well as a team of tribal development workers. I also met Hilda-the Highland Development Association, and accompanied them on their visit to a tribal village, where they were promoting the institution of a tribal school. Hilda had more of a political organisation focus, as opposed to the welfare orientation of Shreyas, and it became apparent that there was some competition and animosity between the two organisations.

While my personal involvement was not extensive enough for my own research to be considered truly participatory, the NGOs with whom I was attached were engaged in an empowerment process which retained some of the tenets of PAR- Participatory Action Research. PAR is appropriate in the context of tribal development as it has been understood as a tool for building a bridge between indigenous and scientific knowledge, "and creates a science which is truly liberating" (Fals-Borda, 1991, p. 32). Both of the primary components of Participatory Action Research, the restoration and promotion of popular knowledge, as well as the creation and strengthening of people's organisations (Fals Borda, 1991, p. 16), formed the crux of NGO involvement in the region.

For instance, most of CORD's work entailed strengthening and empowering BKS-Budakattu Krishikara Sangha, the local Jenu Kurumba led tribal organisation. Initially, CORD worked with the backward castes, but in 1984 work with the adivasis started (Cheria et al., 1997, p. 46). The tribals in Coorg were very disempowered in the early 1980s and needed help in organising. CORD was formed to provide support in these areas. CORD now works with 136 tribal hamlets in five districts. CORD has been involved in awareness creation, educating adivasis regarding the reasons for their exploitation, and initially in direct development work and economic interventions, such as securing fair prices for forest products.

Land alienation was an initial entry point for CORD's involvement with tribals. Now the major focus is on tribal self-rule and social education among tribals to enable them to fight for their rights. Conscientisation is the main focus, helping the tribals to analyse their problems from a political perspective. CORD strengthens the membership of the tribal movement by providing new linkages.

CORD was also involved in promoting, revitalising and recording local knowledge regarding traditional medicines and other forest products, as well as assisting people in attaining new knowledge regarding agricultural development. As will become evident in the interviews to follow, CORD was instrumental in assisting tribals in developing new livelihoods when their forest habitat had been destroyed, and also in helping them to organise and assert their rights in the face of harassment from the Forest Department.

As mentioned, the primary struggle of CORD and BKS, at present, is against the proposed World Bank and Global Environment Facility Ecodevelopment Plan for the preservation of seven Indian National Parks, including Nagarhole. The tenets of this proposal include the eviction of tribals to the exterior of the park and the provision of alternative livelihoods outside of the forest, at the same time, promoting "eco-tourism" and research by urban dwellers within the park. These alternate occupations, such as pig rearing, will be shown to be viable by pumping in massive subsidies, thereby "proving" that the tribals can be comfortably resettled outside of their traditional forest environment (Cheria et al., 1997, p. 188).

In response to this heavily funded proposal, the tribals of Nagarhole put together a People's Plan for the preservation of the National Park, which would empower them to be the protectors of the Nagarhole Forests, utilising their knowledge and traditional systems. This plan opposes any development for high maintenance tourism, or the construction of any further infrastructure within the park. This Plan also demands the

restoration of forest rights to the adivasi, both those living within and on the periphery of the National Park (Nagarhole BJHS, 1997, p. 16).



Women's meeting at CORD

During my residence with CORD, they held a meeting in order to explore the reasons for the lack of female participation in BKS and how CORD could encourage such participation. The women shared their experiences in the large group regarding their personal difficulties dealing with increased male dominance and abuse, as well as alcoholism. They also experience external pressures from money lenders and the Forest Department. The women broke into small groups to explore solutions to such problems and how their involvement in the political organisation could be increased. It was at all times stressed that BKS could not be successful without the participation of women.



Small Group Discussions During the Women's Meeting

The success and strength of BKS would signify the possible end of CORD's involvement. At this time, CORD is withdrawing from direct interventions, and rather functioning as a support to the initiatives of the tribal organisation. Demonstrations such as the "Self Rule and Enter the Forest" campaign held in November 1995, were conducted by the tribals themselves, without any visible NGO support (Cheria et. al. 1997, p. 190). The ultimate goal would be to withdraw from all involvement, leaving a powerful independent tribal organisation behind.

ACCORD also sees its success in terms of its ability to completely withdraw from the Gudalur area, where it has set up a tribal hospital, as well as some successful economic initiatives. ACCORD was born in 1986 with the focus being on making the tribals self-reliant in accessing services. ACCORD created systems where services are accessed in organised groups with the hopes that these will become self-managed tribal institutions. ACCORD provides support to the local peoples' organisation in the Gudalur

taluk, which is called Adivasi Munnetra Sangham, or AMS. Animators go to local villages to educate tribals regarding the causes of exploitation, land alienation, money lending, unwed mothers, and atrocities against tribals, thereby encouraging participation in the Sangha.

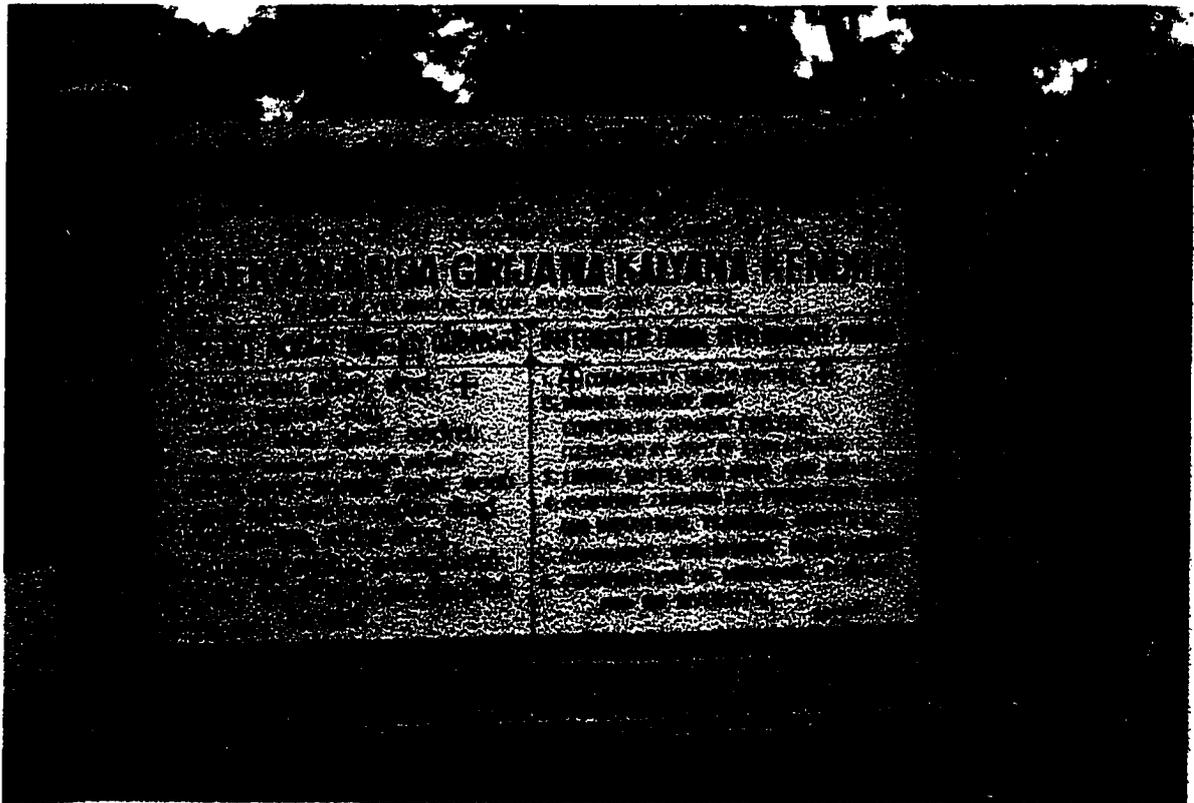
ACCORD focuses on cultural development through an Indigenous Knowledge Documentation project, as well as by ensuring that all development programs are culturally appropriate. Economic Development is addressed through the provision of an Adivasi Credit Fund for crop loans and livestock development. ACCORD has also worked to prevent land alienation by starting a tea-planting program run by the adivasis. It is difficult to alienate land that is seen to be in "productive use." Increasingly the economic development programmes are being formalised into co-operative societies run by tribals.

It is for its work in health that ACCORD is most known, as it runs a tribal hospital in Gudalur town. The Gudalur Adivasi hospital is managed entirely by Adivasi nurses and run in a manner which tribal cultural traditions are respected and consultations are conducted in tribal languages. ACCORD also supports a mobile health clinic and a system of village health workers.

ACCORD supports work in education by providing scholarships, clothes or books. They have also helped to develop a pre school primer in the Paniya language through the Language Institute in Mysore. However, it does not run any schools itself.

In recognition of the fact that deforestation has deprived the tribals of their housing materials, a comprehensive housing program has been taken up using sustainable materials and tribal wisdom. In all of these areas, ACCORD has been involved in imparting skills to Sangam leaders, tribal youths and tribal nurses in order to develop a system of self managed tribal institutions in preparation for the phased withdrawal of the NGO.

VGKK also began initially as primarily a health organisation and developed into a comprehensive program of tribal development. VGKK is led by Dr. Sudarshan, who initially entered the Bilgiri Ranga- B.R. Hills region in 1979, to conduct medical work with tribals. The forest regulations of the 1970s removed the forests from the control of the Soligas, leading to economic destitution and social vulnerability. By the time Dr. Sudarshan entered the B.R. Hills, malnutrition and disease was rampant among the tribal population. After two years of attempting to provide medical help in this setting, Dr. Sudarshan recognized the need for an overall tribal development program to address issues of exploitation. This led to the formation of VGKK on October 19, 1981 (Moshan De, 1994, p. 9).



VGKK provides a tribal hospital, residential school, job training programs in cottage industries, as well as providing support to the local Sangha. VGKK believes that the future of the Soliga community depends on maintaining their connection with the

forest. In order to fulfil this objective, education is focussed on tribal knowledge, with children learning plant names and participating in forest games.

There is also an entire department focussed on biodiversity conservation. This Biodiversity Conservation Network Project, has developed a small herbal garden, as well as a more extensive ethno-medicinal forest, in order to promote the use of traditional medicines and incorporate these into the health program. The BCN project is also involved in monitoring supplies of non-timber forest products, and in support with the marketing of these products. Processing activities add value to the products, thereby increasing the income derived from the forest produce. Many of VGKK's cottage industries involve the processing of forest products like honey and soapnut, with all of the income going to the tribals. Biological monitoring assesses the level of sustainable harvest utilising a combination of modern and traditional knowledge. Another goal of this process is to diversify the types of products extracted (Moshan De, 1994, p. 15).

Keystone has a similar focus, but, as mentioned, with honey collection and beekeeping as a point of entry for further development work. Indigenous and modern knowledge is combined in order to promote economic development for tribals through this traditional activity. Tribals were suffering, as with deforestation and the influx of cash crops, honey sources were greatly reduced. In addition to helping tribals establish a fair price for their products and discouraging exploitation by moneylenders, Keystone has also helped to revitalise other traditional practices like millet cultivation. Tribal diet has become less nutritious with the cash economy, so traditional activities like millet cultivation are encouraged. Keystone has also encouraged the cultivation of some cash crops like coffee and pepper, and assisted the tribals with their marketing. In all areas, Keystone is trying to expand the options of the tribals by increasing their skills and creating new income generating opportunities. This includes processing primary

products like honey and silk pods; the tribals are now involved in making honey wax candles and mattresses out of silk pods.

Keystone works with the tribals around the issues that they identify. The focus is on sustainable development towards targets identified by the tribals. They try to use locally available materials for all of their projects so that these projects are sustainable in the long term. Keystone encourages traditional ways whenever possible, and discourages the denigration of tribal knowledge. The workers learn about traditional knowledge and then feed it back to the people, adding scientific knowledge wherever appropriate, thereby trying to link their work with environmental concerns.

Keystone is also involved in trying to change the attitude of the Forest Department at lower levels, working from the ground up to encourage policy changes. The restrictive forest policies, coupled with an increase in deforestation have led to a decline of tribal forest knowledge in the region. Keystone is trying to negotiate to increase tribal rights to forest collection, and have conducted an entire study on forest collection from both an environmental and economic perspective, to further this aim.

While HiLDA is also involved in environmental work such as land restoration and terracing of watersheds, their staff utilised literacy as the primary entry point for their work, which began in 1987. HiLDA was involved in conscientisation work in the hamlets of Sulthan Bathery Taluk and tried to co-ordinate these groups into an independent tribal organisation, the AAS. HiLDA provided training and exposure, such as organising a trip to Jharkhand to meet the tribals there. The Sangamans in 1992, 1993 and 1994 were turning points for tribal organisation and exploitation, at least in the area of land alienation, has diminished.

As a result of political pressure, HiLDA had to back out of the direct struggle. The police and Forest Department raided the HiLDA office and Jacob, the Director, was put under house arrest. From 1995 onwards, HiLDA focussed on education, income

generation and economic development, leaving the political dimension to be fought by the tribal organisations.

One of their main thrusts right now is the institution of a single teacher school program that is a bridging program for tribal children. It is a program taught in their own language with Malayalam being taught using cultural symbols, such as bamboo. Without such a bridging program, it was found that 90% of the children would drop out before the fourth standard, due to language and cultural barriers, as well as poverty and illiteracy of parents. There is also a focus on tribal culture and religion in these schools to combat the tendency toward Hinduisation. Sports competitions focus on tribal skills like crab catching.

HiLDA has also started a Community Business Program that is unique in India. Self- help groups are formed which take part in a weekly savings program. With training, each group will focus on the production and marketing of one product. Capacity building and gender issues are also addressed within the groups. Most of the 76 groups are composed of women which provides a sense of solidarity in the face of increased male dominance and alcoholism. Sexual health and HIV/AIDS is also a new focus of



intervention, as there is apparently a great deal of high-risk sexual behaviour among tribals, and also an undiminished degree of exploitation of tribal women by outsiders. Education and facilitating access to treatment are the primary foci of this work.

Shreyas, also located in Sulthan Bathery, is a Christian Social Service Society that has been in operation since 1979. Shreyas' staff works with all of the rural poor around issues of health, education and economic development. For tribals, kindergartens are provided which teach children in the local languages, and introduce them to Malayalam to prepare them for the first grade. Food aid is also provided to the tribals as their opportunities to provide for themselves are often limited.

Shreyas is also involved in trying to address issues of exploitation through education and the empowerment of people's organisations. The empowerment of women helps to curb the rise of unwed mothers, while the development of credit union savings plans help to reduce dependence on moneylenders.

It was clear that the strategy of all of the NGOs revolved around freeing the tribals from exploitation by outsiders, and expanding upon their economic opportunities, either by building upon traditional practices or teaching new skills. Involvement in health and education were also primary foci for NGO involvement, as accessing mainstream services is often difficult for tribals. In all of these areas, the NGOs explored the indigenous practices of the tribals, and helped to revitalise and incorporate these into appropriate programs with them.

Another primary area of involvement was in supporting and building up their own tribal organisations in preparation for the ongoing political struggle for reclamation of alienated land, rights in the forests and eventual self rule. Some NGOs such as HiLDA had been forced out of the direct political struggle, while others have deliberately chosen to take on a purely supportive role, as the struggle is the tribals alone, and there is a danger of cooption by well meaning external organisations. Most of the NGOs saw their

success in their eventual obsolescence, which indicates humility as well as a respect for tribal autonomy.

CHAPTER FOUR

PRESENTATION OF DATA

During the course of my research, I had many formal and informal interviews with NGO staff, a few of the most relevant are included here, while information gleaned from others is incorporated in the text. I also conducted approximately fifteen interviews with tribals. The first two interviews were held prior to the development of a formal questionnaire, thus they are relatively brief. I developed a questionnaire when staying at CORD, where most of my interviews took place. As mentioned, I had to revise my questionnaire to attain more detailed responses. Since CORD staff were so instrumental in the completion of this thesis, they are receiving a copy, as well as a large number of photographs.

I tried to interview elders whenever possible, as I felt that they would hold a greater depth of traditional ecological knowledge and be more in touch with the spiritual traditions of the tribe. Generally, however, my respondents were limited to whomever was in the village at the time of my visit. On one occasion, I did make an appointment to visit a particular elderly woman, Bairrama in Handigodde- interview to follow.

These first two interviews were conducted on my first side trip from the Sanctuary, in neighbouring Tamil Nadu. The area was very arid, any remaining forest being dry deciduous. It is a conducive climate for growing tea, and there are tea plantations everywhere in what used to be an expansive stretch of forest. In this region the expansion of tea estates into previously tribal held areas has led to increased impoverishment and loss of livelihoods. Additionally, the spread of reserved forests in which no collection or hunting can take place has also impinged on the livelihood of these tribal groups. The first Nayaker settlement that I visited was located right between an expansive tea estate and a reserved forest. The first interview was conducted with the assistance of a local hotelier, who also happened to be a friend of the tribe, while the

second one was conducted with an interpreter from a travel agency. Neither group was connected to any NGO.

AREA: Near Masinagudi, Tamil Nadu

TRIBE: Nayaker

RESPONDENT: Subu, elderly village headman

DATE: March 14, 1998



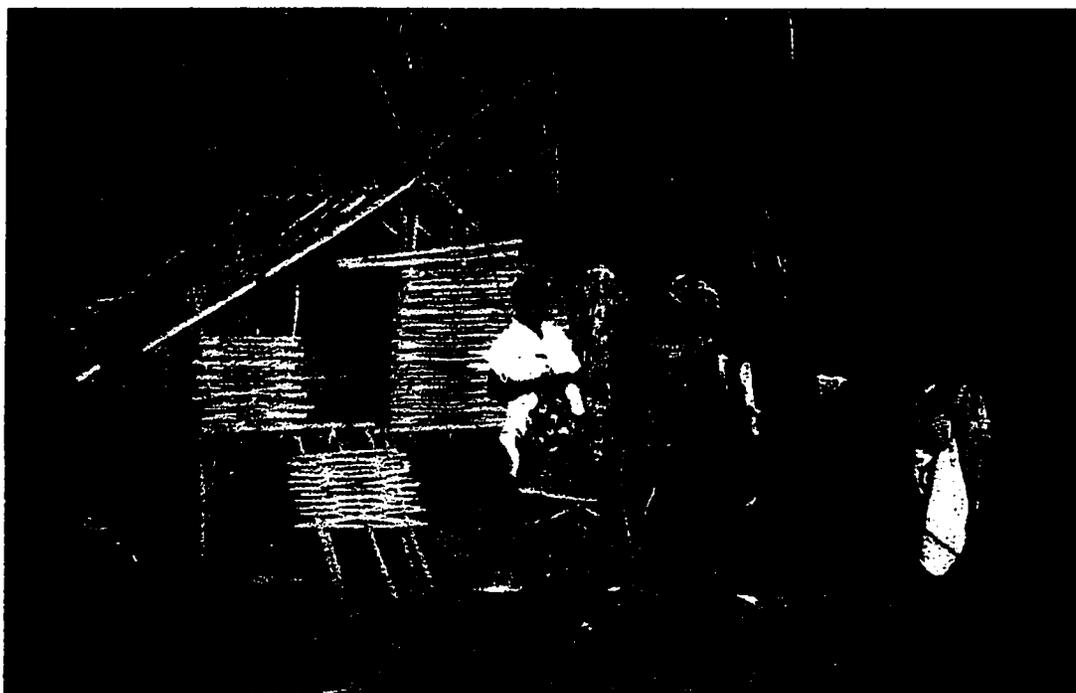
Nayaker Children

The headman of this village was a friend of the owner of my hotel. Apparently she had helped his injured brother many years past. In any case, he was eager to talk to us regarding the devastating circumstances of his village. As mentioned, this was not a formal interview as I had not prepared an in-depth questionnaire. Additionally, as he spoke non-stop it was difficult to interject with any questions. He was eager for me to take as many pictures as possible, so that the outside world could be made aware of their situation. They have not received any help from NGOs or any government agency,

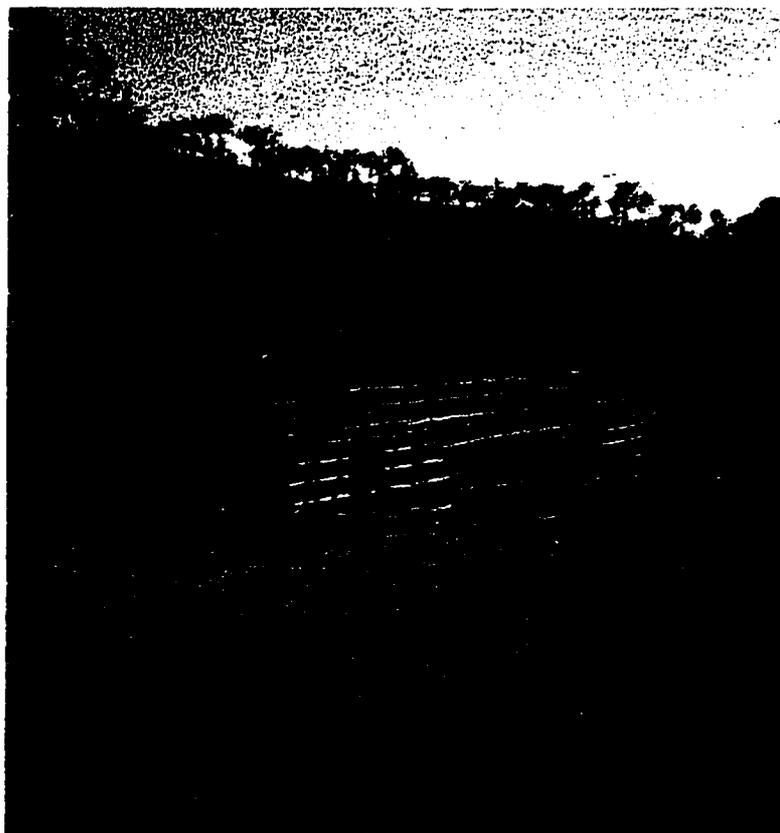
in spite of the fact that the headman has been approaching various organisations for help. Since the 1970s their land has been increasingly encroached upon by plantations and reserved forests.

The village was in a deplorable situation as the people have no means of earning a livelihood. They earn a little money looking after goats and selling firewood. They also collect some forest products for their own use. The men in the village were in the forest when we arrived. If they are caught selling or collecting firewood they are fined by the Forest Department. Subu was very angry regarding their treatment by the Forest Department, and did not think that such restrictions led to forest conservation.

The villagers are squeezed on a tiny strip of land between the reserved forest and the tea estate. Not only is the water supply contaminated by the pesticides from the tea estate, but the estate owners also ripped out the rice they tried to cultivate. The estate owners did not then plant tea on this land, yet the tribals are prohibited from cultivation. There is also a threat posed by the elephants who may trample their village. While they are vegetarians, they use bow and arrows for their protection. They also invoke protection from elephants through worship of female goddesses.



Subu said that they used to practice shifting cultivation in the forest, as well as extensive gathering of forest produce. Their forest extended for miles and miles in every direction. They were nomadic and felt no limitations on their livelihood prior to the introduction of tea plantations and reserved forests. They are overlooked in terms of employment on the tea estate, and have no real desire to work on the plantations, as it does not suit them. They cannot afford school fees for the children, and the children cannot fit into the regular school system due to language and cultural barriers. There is a frame of a schoolhouse built in the village, but as there was no teacher available, construction was abandoned. Housing is also totally inadequate, with 3-4 families squeezed into one mud hut.



Frame for Nayaker School House

Subu would like freedom for the villagers to cultivate freely and take what they need from the forest. He did not believe that employment opportunities on the tea plantations could be helpful to them.

AREA: Masinagudi, Tamil Nadu

TRIBE: Chettis and Paniyans

DATE: March 24, 1998



Paniyan Huts

With an interpreter from a travel agency to accompany me, I went to visit several families on the periphery of a reserved forest near Masinagudi. While in many cases, Paniyans were in a bonded labour situation to Chettis in the past, Chettis are also considered scheduled tribes. As they were not traditionally forest dwellers, I did not focus on Chettis in my research, but I included them here as their issues were not that different from their Paniyan neighbours.

The first Paniyan family seemed well fed and healthy, if rather despondent and disinterested in the interview process. They had banana trees and other crops on their land. While their livelihood is not dependent on the forest, they still collect honey and other products using traditional methods, such as bee songs. They still worship forest gods and practice traditional rituals, in spite of the fact that they are no longer economically dependent on the forest. The Forest Department does not permit collection for sale in this area, while collection for use was permitted. They still use traditional herbal medicine, and go to a regular doctor if they are unsuccessful, but usually they are successful.

The children do not attend school because they do not choose to. The parents seem reluctant to pressure them into attendance. School fees may have been an issue, but were not mentioned.

They did not wish to go back to a life in the forest, but rather would like steady employment and more land. They feel some discrimination from non-tribals and do not associate with them. At the same time, they do not feel part of a larger Paniyan community. In this case there were just three houses together with no evidence of any sharing of resources. Some had more land and crops than others.

A second Paniyan couple residing nearby complained bitterly about the Forest Department restrictions on the sale of forest products. The couple felt that such restrictions were unfair given the lack of alternatives. The husband works on a plantation, but they go hungry for many days due to lack of work. It appeared that their house was located on a fairly large area of cultivable land, but they stated that this land was not theirs. They have never actually lived in the forest, but still utilise traditional rituals when collecting forest products, and still worship forest gods. They would not like to reside in the forest, but would rather like to own some land and grow their own crops.

We also visited with a Chetti family whose main concern was a 14 year old child crippled by polio. It was too expensive to send him to any sort of hospital so he lay on a rough blanket on the mud hut floor. The mother, who appeared only to be in her mid thirties, lost nine children prior to the birth of this child. She has two more healthy children who often miss school in order to help their mother take care of their handicapped brother. The father works on coffee plantations. They also cultivate some crops and have enough for basic needs, but not to provide medical care for their child.

The area social worker, also a Chetti, asked us over to his house for coffee. His role is to arrange loans from the government for tribals to purchase livestock or take part in other income generating schemes. He does not often negotiate with the Forest Department on behalf of tribals. The government priorities for the area which he is working on were not mentioned by the tribals interviewed-road improvements, construction of a bridge and the provision of a communal t.v.! He is also a farmer and complained that his responsibilities as a social worker took him away from his crops.

On my second side trip from the Gurukula Sanctuary, to Attapadi, I did not attain much useful information for reasons previously mentioned. On my third trip, I went to the B.R. Hills in Karnataka to visit with Vivekananda Girijana Kalyana Kendra. While I was not able to interview any tribals during my relatively short stay at VGKK, Dr. Sudarshan did set up an interview with the small team involved with the Biodiversity Conservation Network Project. This project is a joint venture between VGKK, Tata Energy Research Institute (TERI), and the University of Massachusetts in Boston (UMB). The project has three components: biological monitoring to assess sustainable harvesting levels, a socio-economic component to determine the factors influencing

biodiversity, and an enterprise component help tribals add value to the products through processing. TERI and the UMB have input in areas of policy issues and research, respectively (Mohan De, 1996, p. 29).

The following is an interview with VGKK staff involved in this program.

BIO-DIVERSITY CONSERVATION NETWORK PROJECT

VGKK STAFF-B.R. HILLS, KARNATAKA

DATE: April 10-11, 1998

There are 4-5,000 Soligas living in the forests of this region (B.R. Hills). They utilise 4-5 main forest products, including honey and omla, which they use to make pickles. The enterprise component of this project ensures that the tribals have an incentive to preserve the forest, as the income from pickle and honey production goes directly to them.

The Soligas have been organised to monitor their own extraction levels and reflect on the impact of their harvesting techniques through the institution of participatory resource monitoring. The people count the seedlings and saplings and estimate the productivity of the resources. They assess the impacts of harvesting and the regenerative capacity of the resource. This process is based on indigenous knowledge, as well as the addition of the scientific transect method. Base maps are made to document changes in the resource through participatory resource mapping.

Unfortunately, traditional constraints on resource use have been abandoned by the people due to external changes and socio-economic stress. Some traditional methods of honey collection simply had to be abandoned as they were too time consuming for commercial harvesting. Unsustainable harvesting methods are now

being discouraged by the projects, and some traditional constraints revitalised, by re-establishing this link with the forest. Harvest is being cut down to 60-70% yield to promote regeneration. There are pre-harvest meetings to discuss the methods and levels of harvesting to be utilised. They are always busy in the program, as every product has a different season.

Tribals used to be exploited by private contractors in the marketing of NTFP-non-timber forest products. The state government intervened and introduced a tribal co-operative called LAMPS-Large Area Multi Purpose Societies. VGKK works with LAMPS around the marketing of tribals' produce, to ensure a fair price.

There are also post harvest meetings to discuss how future improvements to the process can be made. For instance, income can be raised even with lower levels of harvesting through processing which adds value to the products. There is also a process of monitoring to ensure that the benefits of the harvest go to the community as a whole. There is a board which oversees this process.

The Soligas derive a considerable income from non-timber forest products, amounting to approximately 50-60% of their total income. They are also involved in agriculture, wage employment with the Forest Department, or vocational programs run by VGKK. In spite of their insecure tenure over the forests, the Soligas have shown interest in keeping track of the production and extraction patterns. The Forest Department is co-operating with this venture, however they do not permit the harvesting of all products.

The project links economic incentives with protecting biodiversity, and enhances the value of non-timber forest products by establishing Soliga owned enterprises that will market and process products. Sustainability is to be achieved by strengthening the local communities access to and control over biotic resources while monitoring extraction and

overall ecosystem health. The philosophy of VGKK is to build upon local knowledge and philosophies to promote development.

This next set of interviews was conducted under the auspices of CORD, following the completion of my formal questionnaire. Interpreters Amjed, Ramakrishna and Jenna from CORD were instrumental in the completion of this portion of the research. Amjed is a botanist involved with biodiversity preservation, while Jenna and Ramakrishna are involved in arranging meetings, and other more political aspects of the tribal struggle. Tribal groups from within and outside Nagarhole National Park were included. All face, or have faced various forms of harassment from the Forest Department. Most communities have been displaced at one time, or now face possible eviction from their territories.

AREA: Kodagu District, Karnataka

VILLAGE: Soole Bhavi

TRIBE: Jenu Kurumba

RESPONDENT: Nilama- age 19

DATE: July 10, 1998

When Amjed and I visited this beautiful community, a short bus ride and walk away from Kushalnagar, many members were away working or in the forest. Nilama has been fairly active in the tribal movement, and was later in attendance at the women's meeting held by CORD. She lives with her mother, who was very reticent, while Nilama engaged with us readily. She also gave us some honey that they had collected.

She told us how this community was displaced by the Harangi Dam and was then subject to harassment by the Forest Department in their new location. This harassment has now ceased or at least diminished, as they have stood up to the Forest Department, with the support of CORD and BKS.

Nilama describes their community as forest dependent, as they still collect many products from the forest. Most collection is for personal use, but orchids and honey are sold. Soapnut, tubers, fruits and roots are among the products collected. They are not getting sufficient products due to deforestation and the replacement of the natural forest with teak. The Forest Department does not impose restrictions on collecting, as long as this is for use and not for the market. Honey and orchids are somehow exempt from this restriction. The fact that there is no commercialisation ensures sustainability. She described the environmental impact of forest collection as minimal.

Honey is filtered, but otherwise the products are unprocessed. She feels that they receive a fair price for the honey and orchids. A bee song is sung prior to harvesting the honey, which prevents bee stings. A honey god, and the trees in which the honeycombs are located, are worshipped.

There are no sacred groves as such, but certain trees are worshipped and used in festivals. There is a New Year's festival and a harvest festival. The Banyan tree and the Neela tree are considered sacred, but no trees are ever cut. They worship a house god and a forest god. The latter worship is performed by the whole community.

Every animal, plant and rock has a separate spirit, and the belief is that all are sacred, which is why no live tree is cut unless absolutely necessary. Only dead trees are cut for firewood, and there is no head-loading practised. The belief is that if trees are cut the rain will not come and plants will not grow. Hunting is practised, but only small animals are allowed, such as pigs and rabbits. Large game is protected.

Needs that are not met from the forest are met through cultivation or wage labour on plantations. Labour on coffee and cardamon plantations enables them to purchase utensils, salt and chillies. Ragi, maize, rice and vegetables are grown, and the land is very fertile. A pooja (worshipping ritual or sacrifice) is performed before planting to ensure a good harvest. The land is communally owned and the produce is equitably

shared. Work is shared equally between men and women. Nilama believes that there is gender equality. After a successful harvest, there is dancing and celebration in which everyone participates. Elephants, in spite of their sacred status, do some damage to crops. Fire keeps them away from crops, and house construction that utilises the whole round bamboo keeps them away, apparently.

Medicinal plants are used according to local knowledge. It is taking more time to find these due to deforestation and teak monocultures. The hospital is 15 kms away and a health worker visits. There is no traditional healer or medicine man in the village, however, there is a community leader who makes all the major decisions. Minor disputes are settled among themselves.

The children attend a school nearby. It is for Jenu Kurumbas and is a residential school. No cultural beliefs are taught, however, as the teacher is a non-tribal. Young people acquire traditional knowledge from their parents.

Life in the community would be improved through unrestricted access to the forest. Her people are happy in the forest and want to remain there. Increased access to forest collection was cited as a priority above more cultivable land or wage opportunities.

AREA: Kodagu District, Karnataka
VILLAGE: Raanigade
RESPONDENTS: Gautama- Soliga- age 40's
Ootama-Jenu Kurumba- age 30s
DATE: July 11, 1998



Raanigade villagers- Gautama Front and Centre

When Amjed and I visited this village, a large crowd of women and children gathered, but the two women mentioned above were the most vocal. Gautama and Ootama were also active in the women's meeting put on by CORD. The initial problems described by the village women included their tiny matchbox government-built houses that leak during the monsoon. They also described corruption in government and officials requiring bribes making their lives miserable, but would not clarify further. Some houses are still awaiting electricity; one-third have been electrified. The water source is too far away, but it is safe.

The people have small plots of land to cultivate ragi and maize. They also have cows and bullocks for plowing. Those that have bullocks get two crops per year, but not everyone is so lucky. The land is government owned, and not all have been allocated equal amounts. Additionally, it is an insecure tenure as they do not have any ownership documents, and are on government property.

They supplement their diet with gooseberry, honey, bamboo, fruits and mushrooms from the forest, which are several kilometres away. Honey is marketed, but the other items are just for their own use. While the amount has diminished due to deforestation, this has not affected their nutritional status as their main nutrition comes from their ragi and maize, and from rice which is purchased. There are no limits or taboos regarding collection practices, but they only take what they need. Only a few people hold knowledge regarding medicinal plants. There is a herbal practitioner in the village and the mobile health clinic also comes every two to three months. Traditional methods of healing are tried before people go to the hospital.

Gautama and Ootama have been residing here for 15 years. The previous generation lived in the adjacent village. They have been de-linked from the forest for several generations and prefer living outside due to fear of elephants. In spite of this, their religion still revolves around forest worship. They worship the Banyan tree, believing that god is in the tree. Pupee and Terri trees are also worshipped. The tribals guard the forest from outsiders and offer pooja (offerings of worship) to the sacred trees. They celebrate some Hindu festivals, but retain their own beliefs. They also offer pooja before planting and harvesting. This is to ensure a greater supply of grain for present and future.

Knowledge regarding food plants and cultural beliefs are being passed to children, but no culturally specific knowledge is taught in school as the teacher is a non-tribal. The school is a general mainstream school, but with residential facilities for tribal

children. If the students stay in school, all of the costs will be covered by the government. Some boys stay until the tenth standard. More girls drop out to help out in the home.

While wage labour supplements income, the men spend almost all of this money on arrack (cheap alcohol made from any locally available ingredients). Under the influence of arrack, the men become violent. Out of a wage of 75 rupees per day (\$1.85 U.S.), 65 may be spent on arrack. Ten rupees are left for rice. Thus money must be borrowed for basic necessities and paid back with interest after the harvest. This leads to long term indebtedness to money lenders. As they reside on government land, there is no threat of the money lender taking this land, however, the debt is still crippling.

The women have agitated for the closure of the arrack shop, but there are too many forces arrayed against them, and they have few outside sources of support. There is much money to be made from arrack, and it is a licensed shop. The women would like more control over income and more resources from the government to improve their lives. They do not want to return to a life in the forest, as they are too afraid of wild elephants and other dangers.

AREA: Nagarhole National Park, Karnataka
VILLAGE: Murkala **TRIBE:** Jenu Kurumba
RESPONDENT: Headman J.K. Thimma-age 40's or 50's
DATE: JULY 14, 1998



Headman J.K. Thimma

We spent the night in this village as there was a meeting between the BKS leaders in the region and CORD staff. The National Park is about 1.5 to two hours drive from Kushalnagar, where the CORD office is located. Murkala village is very near the

half built Taj hotel, which is in limbo now due to the tribal resistance. In the morning, the Headman J.K. Thimma was willing to talk to me with the help of interpreters Ramakrishna and Jenna from CORD. He was quite forthcoming regarding religious rituals and practices, with which he is quite involved. His role is distinct from that of the leaders of the political struggle.

Prior to their involvement in the tribal organisation, he felt that the tribals in his village had difficulty in gaining the respect of outsiders. Often non-tribals would not speak to them, and if they went to the Forest Department to make a complaint, they would be forced to stand outside no matter what the weather.

The main issues they face are lack of land and lack of rights in the forest, therefore they are unable to pursue a self-sufficient lifestyle. They are only allowed to cultivate the bits of land within their haadi (village) and can only collect forest products in the immediate surrounding forest. They are forbidden by the Forest Department from going deeper into the forest even to collect honey. This month is peak season for one specific root, but now that the area has been declared a national park, the animal populations have increased and there is not a great enough quantity of this root for the tribals. Traditionally, they would call to each other in the forest when collecting produce, but now this practice has been forbidden as the Forest Department believes that the noise will disturb wildlife. They used to collect three varieties of honey, as well as roots and tubers. Additionally, they would hunt small game. Tribals were also hired to hunt for large estate owners and would get a share of this game.

In terms of cultivation, women perform all of the same tasks as men, except for ploughing and climbing trees. Jenu Kurumbas in this region did not engage in shifting cultivation. The tribals had a safe way of cultivating which protected their crops from elephants. They would put the paddy rice, the most valuable crop, at the centre surrounded by ragi and then vegetables, which are considered the most expendable.

This way they could control the threat of elephants from destroying their valuable paddy rice. Now the elephant numbers have increased, and consequently they are disturbing the tribals more.

There are three or four items that began to be collected intensively due to commercialisation: soapnut, cicaki, honey and wild turmeric. Such collection activities took place before the area was declared a Protected Area. Once co-operative societies like LAMPS- Large Area Multi-Purpose Societies got involved, products were collected more intensively, which encouraged exploitation. The society did give a better price than the merchants who monopolised the trade previously, however. There is no harm to the forest involved in collection for use, and he feels that this should be allowed by the Forest Department.

The tribals had methods that prevented over exploitation of forest products, but with the introduction of commercialisation, some of these safeguards were ignored. One method was to leave a bit of the root or tuber for regeneration, or harvest an item only after it had flowered to ensure continuity. Also they would offer the first part of the roots, tuber and honey to the ancestors. They would always say prayers for protection before they went into the forest.

There are two systems of collecting honey. There is a big tree for the whole haadi. This is a sacred tree and the whole tribe gathers around it for singing and dancing. The first collection is offered for forefathers. In the second method, groups of four or five people go into the forest with some pooja to offer the god. Then they climb the tree and collect the honey once the offering has been made.

Cash is earned through labour on coffee plantations. The people are compelled to do this as they can no longer sustain themselves from the forest or from cultivation. The wage is 100 rupees (\$2.5 U.S.) per day. Not all people are physically capable of working every day, and some families have more able-bodied members to send to the

plantations, leading to inequities. Women who do go to work tend to do more days and are very committed. They also save more than the men, who have a tendency to spend more money on alcohol.

Women have high status in the community and there is no stigma towards widows or divorced women. Divorce is uncomplicated. Women observe three days of rest during menstruation, but there is no stigma of pollution as in some cultures. The status of women has not changed due to outside influences, although the exposure of some men to alcohol has created some problems for their partners.

There is a burial ground one kilometre west of the village and the god of the haadi dwells two kilometres eastward. The original god of the clan is four to five kms from the village. A representation of the god is engraved on a copper plate, and is kept in the home, but brought into the forest to worship. Gods are not necessarily in the form of any object, they often simply worship as though the God is before them.

"Barrygourdo" is the head of all gods. Every clan has their own gods. For instance, there is a separate god for the wives' family as they reside in a separate clan.

Certain trees are sacred because ancestors dwell in the tree. The ancestors guide them to this tree. The gods and ancestors speak to them through a trance that is achieved through shaking a gourd. Healing techniques are transmitted in this trance state, and often lives have been saved. For instance, a man fell 50 feet from a tree, and by shaking the gourd the headman was able to come up with a technique to save him. In this case, placing a stone in a certain place and performing a ritual was what was needed to save him!

All adults in the haadi have some knowledge regarding traditional medicine. The god will approach whoever has the knowledge. This person can be a man or woman. As they are no longer allowed to collect medicinal plants, they are losing this knowledge

as well as faith in the god who speaks to them. While traditional healing systems still theoretically exist, they have no access to the herbs and roots they need.

The tribe does have protected areas-sacred groves from which nothing is taken. They protect and worship this grove. Once when the Forest Department tried to cut a sacred tree, it started to "bleed," so they apparently left it alone!

In spite of their contact with outsiders through wage labour on plantations, the villagers have not converted to Hindu beliefs. If they were to start worshipping Hindu gods, their own gods would abandon them. They go into the sacred forests to worship on special occasions and during honey collection season and festivals (this year the FD banned honey collection). Birth, marriage and death call for special celebrations in the forest.

When a couple decides to get married, they disappear into the forest for several days. When they return they are accepted as a couple. In case of death, the headman's role is very important. The body is washed, cleaned and clothed by him before cremation. There is a community worship. The dead body's face is covered and relatives join hands. The headman starts the fire. After burying the body they return 11 days later to collect the ashes. The soul comes and speaks through the headman regarding why he or she died, and any issues to be resolved, such as how future deaths can be prevented. Then the soul departs.

The headman's role retains its traditional aspects in spite of modernisation. He still has respect in the community. He does not get as involved in the activities of BKS- the political tribal organisation, but rather is involved in traditional rituals, sacred matters and in the maintenance of the culture. This has become increasingly difficult, as youth are not accustomed to many of the specific Jenu Kurumba traditions, and lack of access to the forest has diminished these cultural traditions, preventing their transmission. Children do ask their parents some questions about their culture and their previous lives.

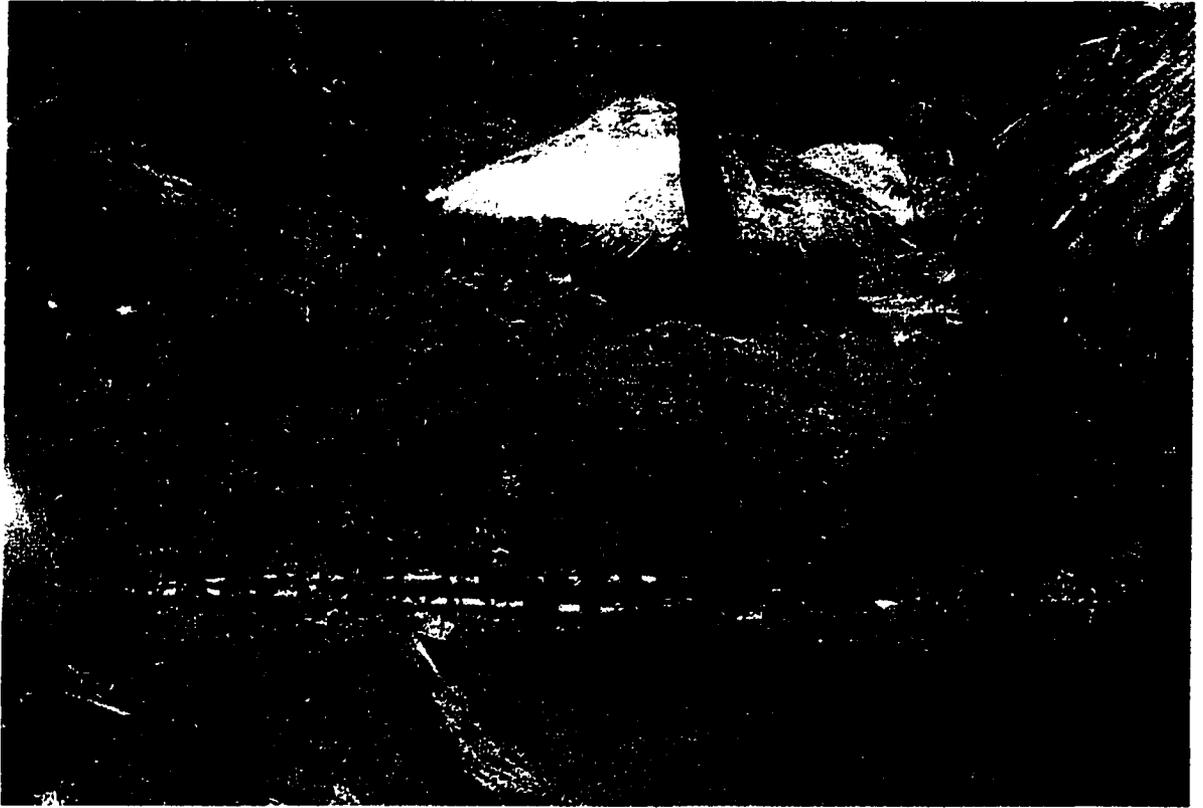
They are learning about plants and forest products, but not as much as previously due to lack of access. There is no cultural content in the school, as it is geared to the mainstream population.

The Headman mourns the loss of their life in the forest. At one time it was a dense natural forest with many species of medicinal plants. The government replaced this dense forest with teak plantations, which have taken over the whole forest. What he wants for his village is land to cultivate inside the forest, with no restrictions on either cultivation or forest collection.

Both cultivation and collection used to be done communally with all the products shared, but with the lack of land and the new system of cash labour and the accompanying inequities, these communal systems are no longer feasible. They would protect their fields and haadis from elephants, by praying to the elephant god and the forest god. Due to increasing populations, this does not always work and people are losing faith in their gods.

In order for the Jenu Kurumba culture to be maintained, they are demanding to stay in the forest, exert more rights over the forest and attain more cultivable land within the forest. They are proud to be adivasis or tribal people, but do not like to be referred derogatorily as "Kurumba or Kuruba" instead of using their proper names. They are proud to be referred to as the original inhabitants, as their ancestors have resided in the Nagarhole area for countless generations.

AREA: Nagarhole National Park, Kamataka
VILLAGE: Murkala
TRIBE: Bette Kurumba
DATE: July 14, 1998
RESPONDENT: Boomi-elder woman - approximate age 50's



Murkala Village

Boomi was among a group of women mingling near centre of the Bette Kurumba side of the village, when Jenna (CORD staff) and I encountered her. While she was not that vocal at this time, she participated when I was interviewing other women later, at the women's meeting.

She described the main problems faced by the villagers as Forest Department harassment. The Forest Department is not allowing any cultivation except for in little patches around their huts. There is no freedom to go into the forest for fear that the people may interfere with the animals. Now they must purchase all of their food from the stores. They do grow some pumpkins and ragi on the little plots outside their homes. They offer pooja before planting and before harvesting to ensure a good yield.

They respect the trees in their forest and would not cut the plant itself, just harvest flowers or roots and tubers, always leaving a segment for regeneration. For firewood, they use dry dead wood only. They maintain some rituals inside the forest and

worship certain trees. They conduct an annual worship of the sacred grove. They do not directly worship the tree, but there is a stone under the tree that is a goddess effigy. They love nature and treat it with respect. Knowledge regarding plants is diminishing in successive generations, however. These women claimed to know all the uses of plants in the forest, but not their names. Likely they knew the names in their language, but did not know the scientific classifications or names in Kannada.

Women have their own income when working on plantations, but it is less than men's. The children are all attending school, and while it is a mainstream school, they seemed satisfied with the education they were receiving. They eat a mainstream diet now and use mainstream medicines, as herbal collection is limited and not always permitted.

The Betta Kurumbas have a unique community gathering place on their side of the village known as a Goddi. Worship and meetings both take place here. The Forest Department is threatened by this community structure, and in another village they burned and destroyed the Goddi, but the people kept rebuilding. After several such incidents, the FD gave up and permitted the villagers to have their Goddi.

AREA: Nagarhole periphery, Kamataka
VILLAGE: Maldargate
TRIBE: Jenu Kurumba
RESPONDENT: Gaurama - elderly woman approximate age mid 60's
DATE: July 23, 1998

I met with Gaurama during the CORD women's meeting and interviewed her with the help of Amjed. She described a particularly desperate situation where the villagers seemed to be at the complete whim of the Forest Department. Maldargate is in a miserable condition, as the villagers were forcibly shifted out of the forest, but given very

little alternate land. They returned to their original forest village, but without legal sanction. Even though they cleared land for cultivating, they are not allowed to cultivate or build houses. There are nine meagre shacks for 22 families. These are used for cooking and storage, but the people sleep outside. In the rainy season they have to crouch in their huts.

Gaurama said that honey collection, as well as other forest collection, form their main activities, although many sell their labour on plantations. Their collection is not allowed by the FD, so they must do it surreptitiously. For firewood they are allowed to take dead trees. The forest is reserved, so their admission is restricted. They are opposing the FD restrictions, but so far with limited success.

When collecting honey, they leave young insects for next season and do not burn the hive. Before collecting honey they offer pooja to the tree. If a honey bee tree falls, they will plant another. The men sing bee songs to prevent getting stung, and they offer pooja to the tree to thank God for fulfilling their needs.

When collecting tubers and roots, they leave approximately one-quarter for regeneration of the root. Most plants can be identified by the people. She says she knows all of the plants. Tubers, roots, soapnut and honey are collected for personal use only, not to market. As their collection is restricted and wages are low, they are not getting a sufficient diet. Hunting of small game is also prohibited and cultivation is not taking place. When they used to cultivate, they worshipped the land before sowing and before harvesting. They would grow ragi, rice and other grains.

There is a temple in the forest that is actually a stone that they worship. They also worship large trees. They recognise that the God is in the tree. Their main belief is that God will take care of people and save them from wild animals. They only worship certain recognised trees and never cut that tree. They only use dead trees for firewood. They do not directly worship animals, but have a "deep heart" worship for Ganesh, the

Hindu elephant god. They celebrate some Hindu festivals and some of their customs resemble Hindus, but there is no process of sanscritisation (Hinduisation). The spiritual leader is a hereditary role passing from father to son. There is no change in practices with modernisation.

For birth, death and marriage, there are special ceremonies. Three months after the birth of the child there is a naming ceremony in which everyone participates. They worship their god at this time. In marriage the girl has optimum choice. The couple goes off to the forest and comes back for the ceremony. Death rituals involve offering pooja with a burning stick on a copper plate, water is put in the mouth of the dead body and a flower garland is wrapped around it. After 11 days there is another pooja.

This group has only limited knowledge of herbal medicine, they tend rather to go to the hospital. Other forest knowledge is being passed form parent to child. When they are going into the forest they are taking the children. There is no formal education for the children however. In spite of the fact that the school is only 3 kilometres away, there is no attendance.

The Forest Department has subjected this group to severe harassment. If they do any cultivation, the FD will pluck the plants out. If they try to build huts, the FD will burn them down. All collection must be done surreptitiously, as tribals may face fines or other forms of censure.

Gaurama loves the forest and wants a free life in the forest. She believes that the Jenu Kurumbas in this village still retain a heart-felt connection to the forest. Cultivation is less important if collection activities were unrestricted. A small plot would be enough.

Women are also labouring on plantations although some husbands would prefer if they would stay at home. The men's income primarily goes to arrack, while the woman's income goes to support the family. The women want the arrack shop closed,

but there is too much demand from their own, as well as, neighbouring villages. As a result, male violence and male dominance is becoming more of a problem in recent years.

AREA: Periyapatna, Karnataka
VILLAGE: Handigodde
TRIBE: Soliga
RESPONDENT: Bairamma, approximate age - mid 60's
DATE: July 27, 1998



Bairamma and Family

Bairamma was a very vocal participant at the CORD women's meeting. The week after the meeting, Amjed and I went to visit her at her village. She felt that she got a lot out of this meeting, and that a great deal of important information was shared. Having met me at this time, and being aware that I was coming to the village, she was very forthcoming with information. Amjed and I began our interview outside, but the monsoon rains compelled us to go into her house. Bairamma described the difficult times the village went through prior to becoming involved with CORD and BKS. With deforestation, the community was forced out of the forest and into farm wage labour at extremely low rates (five rupees per day!). Forest products were insufficient to sustain them and some people were eating mud and died.

They attained their land originally by challenging the replanting of the government teak plantation. They plucked out the roots of the teak trees, while hugging some other trees which were more useful to them, to ensure that there were some trees left around the village. The Forest Department threatened to destroy their houses at this time. They have exerted their rights in this area, and do not experience any harassment from forest officials now. There were many difficulties prior to 1984, at which time BKS was established.

Once their rights to live in the area were formally established, the government was going to give them an inadequate sum in order to build their houses. They staged a dharma (demonstration) in front of the office, and demanded more money and better building materials. CORD staff stood with the people and helped them gain the materials and build the houses.

CORD also helped the people in the areas of health, education and agriculture. CORD people provided training, ploughs and food grains. At first they were practising joint cultivation, but once they learned agricultural techniques, they established their own plots. They produce sufficient produce for themselves. To make money to buy other

things, they rear animals and also sell labour. They sell calves as well as milk, but they have lost some cows due to diseases.

Bairrama described some of the rituals which they perform before sowing and harvesting. Before sowing the seeds they take cumin seeds, coconut, turmeric and sesame powder and offer pooja to the ground, blessing the god. Everyone also shares in eating some of the powder. Their main belief is that the god provides them with many things, so they have to respect god and the land. Before the harvest, they perform pooja-all the family members go to the field where they cook some sweets with rice, ghee and milk. They leave some sweets on the banana leaf for the earth mother after worship, and then everyone shares the sweets. Harvest time is in November.

They worship and offer pooja to trees also. Within certain breeds like Banyan and Bany tree, the god is present, and thus they cannot be cut. If they cut sacred trees, it will cause a catastrophe for everyone in the village. They also worship a god on the hill three times per year. It is a carved statue in the rock. Every week on Saturday they worship a more local god. They celebrate some Hindu festivals like the Ganesh festival. They have no spiritual leader, but for marriage they have a priest for chanting mantras.

The forest is a reserved dry deciduous forest. From this forest they collect some tubers and tender bamboo shoots. When digging out the roots and tubers, they leave a small bit to germinate. They never cut the whole plant. They can go back to the same place each year to collect because there will be adequate plants available. She can recognise about 200 species of plants.

Ancestors had practised traditional medicine, but with the disruption in their livelihoods, this knowledge was not passed on, and missed a generation. CORD has been instrumental in revitalising knowledge about traditional plants. She knows some preliminary treatments for common ailments and is trying to pass this information to children, but they are not really in a forest area and have to travel quite a distance to get

the medicines. Additionally, the dry deciduous forest does not yield all of the plants that they need. Bairamma is trying to preserve some of these medicines in a box in her house, which she then brought out to show me. Bairamma stated that children were going to school nearby, but all the children seemed to be home that day. She is on the school development committee trying to encourage greater attendance. Female education is also being encouraged, although there was discrimination in the past.

They have established a fairly good life now that they have fought for land and decent wages through organising through the Sangha. In the dry season it would be nice if there were some cottage industries they could participate in, as there is not much to do at that time.

Soon after my interview with Bairamma, I left CORD and returned to the Gurukula Sanctuary in Wayanad. The following interview was conducted in a small tribal hamlet which had recently been built near the Gurukula Botanical Sanctuary on the shores of the Manantavady river. It was conducted with the translation assistance of Wolfgang, owner of the Gurukula Sanctuary.

AREA: Periya, Wayanad, Kerala
TRIBE: Paniyan
RESPONDENT: Patta, middle-aged mother
DATE: August 3, 1998

Patta is the mother of one of the staff of the Gurukula Sanctuary. There was no village, as such, but rather a row of four huts along the edge of the Manantavady river. Their main problems are due to their lack of status on their land. There are no facilities like drinking water, and the river is contaminated. When the river rises during the monsoon, it is difficult to go to work. They have lived here one year, prior to which time

they were living with relatives and had no land at all. The land is government property, and a leftist party told them they could squat here temporarily



Cluster of Tribal Huts by the Manantavoddy River

Their main means of livelihood is labour on coffee and tea plantations where they earn 60 rupees per day (\$1.5 U.S.). In the summer they go into the forest and do some collecting. However, if a forest official sees them, they are chased out. They collect roots, tubers, snails and dead wood for firewood. When collecting, they always ensure a future supply by leaving the seeds or a piece of the root for regeneration. They collect six types of tubers, four greens, three beans and a dozen different fruits. They also collect some medicinal plants for stomach pain and minor ailments. For more serious illnesses they go to the hospital. With increasing deforestation, the quantity and variety of the plants has reduced. They also grow ginger, banana, and yam on their property, but are not primarily agriculturists.

They have no sacred groves per se. The Strangler Fig tree is considered sacred. Figs are somehow considered holy, but she was not sure what the original significance was. They have different deities, both male and female. It is not Hindu worship. There are certain ceremonies for death, birth marriage and disease. They also have harvest rituals that ensure the continuity of the village so that everyone will survive until the next year. For the rituals, they will go to certain places connected with rocks and bring incense and other products for a sacrifice. They have certain chants and dances that vary according to the occasion. They also worship formally at a temple in the next village that is connected to the Paniyan tribe. There is an annual festival here. This village was where the sale of Paniyans as bonded labourers used to take place among high caste Nayar families.

Parents of both sexes are involved in collecting and teaching the children about the forest. The children do not like to go to school. They do not like the discipline, and prefer to play. There is a tribal school here that would be preferable, but it is too far away to be useful for these children.

She has noticed that in the past ten years or so they have more money, but are not necessarily better off. They buy more food, but their natural food resources are decreasing, and she notices that more people are becoming sick. Before they would work all day for one pati of rice, but the food was of better quality and they could collect more forest products.

Both men and women work outside the house. The women try to retain some control of the income, as the men spend money on alcohol. Paniyans were traditionally a matrilineal society and the inheritance would pass through the daughter of a brother. Now it is divided equally among all siblings. She still feels women have more freedom now than in the past, although she could not elaborate on the reasons for this. Perhaps because they are no longer bonded labourers.

The main thing that they would like is secure title to their land. They have not made an application at this time, but it is apparently being taken care of by the political party who encouraged them to squat. The land which they cultivate around the little hamlet appears to be communally owned among the four families.

The following interviews were conducted under the auspices of Shreyas in Sulthan Bathery Wayanad, with the translation assistance of Annie from the Tribal Development Program. This first interview with the Tribal Development Workers was a complete surprise. I was led into a room where I suddenly had to lead a round table discussion without the benefit of my written questionnaire. There were approximately twenty young tribal workers in the group who engage with the villagers around health, alcoholism and economic development. The tribal villages we visited in this area were in severe states of underdevelopment, with no secure future due to possible threats of eviction.

MEETING WITH SHREYAS TRIBAL DEVELOPMENT WORKERS

AREA: Sulthan Bathery, Wayanad, Kerala

LOCATION: Shreyas Office, Sulthan Battery

DATE: August 4, 1998

The main issues that they deal with in their work are health and alcoholism as well as exploitation by outsiders. They deal with these by conducting awareness camps related to medical problems and hygiene. There are protest rallies and meetings re: alcoholism. They are also encouraging traditional medicinal practices and have cultivated a herbal garden.

They run workshops to help tribals become aware of the sources of economic exploitation, and are also starting credit union savings plans. They have developed

some small scale industries to enable people to make money for savings. Women are especially involved in this regard. The credit union and income generation programs give them some control over income. Recovery rates for loans are not high, however.

Daily wages are the main source of income. There are a few groups, especially the Nayakers, who are almost totally dependent on forest collection. The government has organised a co-operative and tribals must collect only in this area and market through this society. They can trade the NTFP for other types of food. They may be arrested if collecting out of area, for instance if they cross the border into Karnataka. The government fixes the price, but tribals have some say, as there are some tribals on the board of the society. They still use traditional sustainable systems of collection, in spite of the increased commercialisation of NTFP.

The educational system is improving, due in part to the intervention of Shreyas. Shreyas tries to teach in tribal dialects, as the mainstream language and system is alien to them. Cultural transmission from parents to children is still occurring, but cultural knowledge is not taught in school.

In most villages, religious rituals take place on a little platform under a tree. March is the main season for religious rituals due to it being a good cropping season. Any tree which has milky latex sap is considered sacred; Jack Fruit, Mango trees etc. For sowing, traditionally one elder will plant the first seed. Tribals are able to cultivate around their houses, but have no land. Most are working on the land of others for wages.

The tribals in this area are not very politically oriented, but are influenced and manipulated by various political parties. One of the policies of Shreyas is to make them aware of the potential for exploitation by politicians. They do have their own independent tribal institutions.

Shreyas has tried to raise awareness regarding the reasons for their exploitation. With this awareness they can hopefully take up their own development efforts. Tribals have in many cases lost their language and culture, and are trying to imitate mainstream culture from a position of weakness.

Sexual exploitation has increased, and some cases of exploitation leading to unwed mothers have been brought to court. Shreyas is trying to help women to recognise a potentially exploitative situation.

Women are taking leadership roles in the people's organisations. Women are the first to confront problems and respond. For instance, women have been involved in fighting alcoholism. Alcoholism is rampant in tribal communities, and develops easily, as alcohol is part of their culture and is used in religious rituals.

AREA: Wayanad Wildlife Sanctuary, Wayanad, Kerala
VILLAGE: Ponkavshy
RESPONDENT: Usha - aged early 20's
TRIBE: Nayaker
DATE: August 5, 1998

Usha was the only one in the village willing to speak to Annie and myself at any great length. The headman made an excuse about having to go to the store and shuffled off. This village is in a very insecure situation, as they do not know when and where they will be shifted by the Forest Department. They are presently living on the edge of the Wildlife Sanctuary, and this area is slated to be developed for tourism. There were already animals in captivity kept nearby for the benefit of tourists. Due to this insecurity, the people are not motivated to cultivate or do anything to improve their situation. There is a village organisation demanding to see the land before they are relocated, but it doesn't seem to have much power.

The people work for wages or do forest collection, both of which are irregular and insecure. Wage labour is casual and seasonal, as well as poorly paid. Collection is restricted by the whims of the FD. Certain seasons are restricted, and with the presence of Veerapan, an infamous sandalwood smuggler, collecting was banned altogether for a period of time. The main ongoing problem is that most forest products are across the border in Karnataka. The forest in Kerala is only 2 kms and not a thick diverse forest. Goose berry is rich in Karnataka but out of reach.

Karnataka and Tamil Nadu have stricter enforcement of forest laws and tribals have even been shot at for "encroaching" on these state forests. Arrests have also taken place.

When able, they collect goose berry, saffron, turmeric, honey and lichen, as well as 4-5 types of medicinal herbs. When collecting turmeric, small pieces fall to the ground to regerminate. They will only pluck a whole plant once the fruits and flowers have fallen, ensuring a future supply. The goose berry trees are always left intact. The seeds of herbal plants are left to regenerate. They collect honey at night using a long stick with fire. Everything is used, nothing is wasted. Honey is marketed as well as consumed. Most medicinal plants are available except for the rare ones. There is a medicine woman who was described as somewhat crazy, but for minor ailments most people know the remedies. She cited lack of modern medical facilities as a big problem for the community.

They normally cultivate vegetables such as ginger and yam, as well as pepper and coffee. They cultivate the little plots around their house, but with the imminent threat of eviction, these have been abandoned. When they cultivated more extensively, the Moopan or headman would plant the first seed prior to the rest of the fields being sowed. Even with the little plots the headman takes the lead in terms of planting and

harvesting. It is considered inauspicious to plant or harvest before the headman makes the initiation.

They have a sacred grove on the other side of the river where marriages are conducted. Rituals are also celebrated for death and the child's naming ceremony as well as when a girl reaches maturity. There is a headman that conducts the rituals. There is no particular type of tree that is considered sacred. A tree is consecrated by the headman through a god seeing ritual. There is a dance and the spiritual leader will go into a trance and then name the special tree. Nobody would cut this sacred tree. Forest gods are also worshipped in the form of a stone, which is within the sacred grove.

Men retain control over the family income as they do most of the labour. Women may do collecting or paddy cultivation for wages, but have little control over income. Alcoholism is a big problem and a huge percentage of the wage is spent on arrack. It is common for women and children to go for one week without a proper meal. Even men working with the Forest Department drink on credit and then pay when their cheque arrives. Women are trying to organise against arrack, but it is difficult because their partners are involved. The imminent eviction is also mitigating against any other type of community organisation.

Parents are teaching their children cultural traditions and Hinduism hasn't had much impact. There are two nearby schools with mostly tribal children. Girls tend to study more than boys, as the boys want to be in the forest.

Their village would benefit most from unrestricted forest access and the ability to collect both for their own use and for marketing. This was cited above wage labour or cultivable land as a priority.

AREA: Wayanad, Kerala
VILLAGE: Pukalalamalam
TRIBE: Nayaker
DATE: August 5, 1998

Nobody in this community was willing to take part in a formal interview, but we were able to chat casually with one woman. Most of the houses appeared to be abandoned as the tribals had gone on long collection trips, giving the village a slightly eerie feel. At the same time, there were several beautiful tribal temples in this village. Apparently, temples are shared until families fight, at which time new temples are built to reflect the new divisions in the community.

Poor health is the most pertinent issue facing this community. When they lived deep in the forest, they were healthier. Now they are often sick. They will not go to access regular health services for a variety of reasons, including the distance and a general distrust of health practitioners. Not all medicinal plants are available. She was not sure why there has been such an increase in illness in the community. She is aware that their hygiene is poor and that they do not eat enough. Her child had a severe case of scabies and looked to be in terrible condition.

Some houses in the village were abandoned completely, as people may go to the forest for months to collect. They still adhere to sustainable practices when collecting forest produce. She doesn't believe that this has changed with the increase in commercialisation. She claims that the marketing society is exploitative, but then went on to say that cash was adequate. It seems that budgeting skills among the people are poor. Malnutrition, listlessness, and apathy were prevalent.



Non-Timber Forest Products Collection Depot



Main Tribal Temple



Tribal Temple



Tribal Temple

CHAPTER FIVE

INTERPRETATIONS

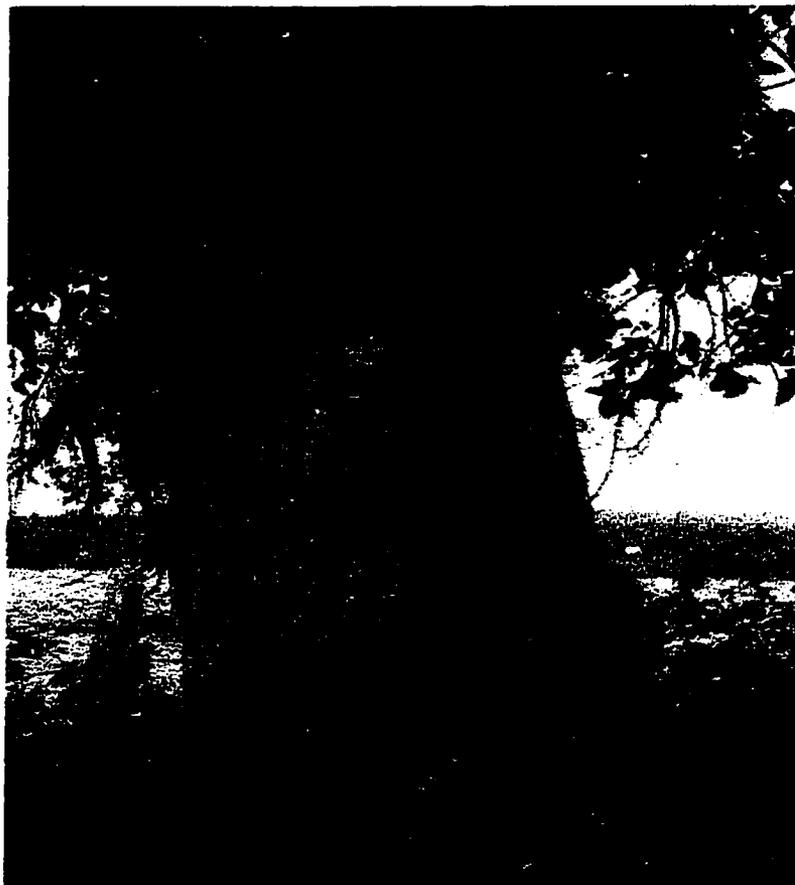
It became apparent that the tribals had many practices and beliefs that promoted environmental sustainability. All of the tribals interviewed spoke of a sacred connection to the forest and expressed horror at the idea of destroying sacred trees and plants. When conducting forest collection, almost all of those interviewed explained how regeneration of specific plants was ensured. These practices were often disrupted when collection became commercialised, however. Rituals that reinforced their connection with nature were common, such as sharing food with the ground, or conducting god-seeing rituals in which certain trees were identified as the sites for ancestor worship. Such trees would never be cut by the tribals, thus the religious importance accorded to the environment was crucial in terms of its protection:

Social control without divine legitimation is difficult to enforce in a traditional society. With this in view the tribals built myths and stories around the resources. As a result their religion is by and large centred around nature with an abundance of spirits, gods and ghosts who dwell in trees, plants, animals, birds, rocks etc. and have to be worshipped and kept satisfied for fear of being provoked into destroying the individual, family or village (Fernandes, 1997, p.29).

In cohesive tribal communities restrictions on the use of certain resources was possible to enforce. There were seasonal restrictions on hunting, and tree species essential to the survival of the tribe were declared as sacred, while important species were accorded partial protection (Fernandez, 1997, p.28). In the Northeast, the Sal tree is considered sacred, while in the Nilgiris, the Banyan tree was most often mentioned by those interviewed. Bairamma stated that cutting a Banyan tree would cause a catastrophe for the entire village. Social control mechanisms to ensure equitable distribution were also worked out by most tribes, as collection was usually conducted in a group. Often there are only specific hours of a day in which collection will take place

and seasonal restrictions on different products. Among the Soligas at VGKK, such restrictions were institutionalised within the Biodiversity Conservation Network Project.

According to many of those interviewed, planting and harvesting could usually not take place prior to the headman initiating a pooja. Fernandez, (1996) also found that among the Tripura tribals of the Northeast, the elders would choose a day for pooja before which no shifting cultivation should begin. The community also decided the area that each family was allowed to cultivate based on the numbers of mouths to feed (Fernandez, 1996, p.67). With current restrictions on cultivation and forest collection, coupled with a greater reliance on cash labour, such equitable distribution of resources is more difficult to ensure.



Banyan Tree

It became apparent that tribals who were still residing in the forest were very reluctant to give up their forest dependent lifestyles and expressed a strong spiritual

connection with their forest environments. On the other hand, those outside forest areas desired greater services from the government or increased income. Without intervention, tribals removed from the forest, and forced to integrate with the mainstream culture and economy suffered from severe poverty, marginalisation, indebtedness, addiction to alcohol and cultural disintegration. In Raanigade, a government built community outside of the forest, addiction to arrack was cited as the primary problem experienced by the community. Women were subject to male violence and domination unknown in traditional culture. Alcoholism had led to indebtedness to moneylenders while inequitably distributed government benefits had led to a disruption of the communally oriented tribal culture. Some tribals had apparently been able to access government aid and loans, while others had not. Obviously such qualification must be on an individual basis, as some had more land and bullocks than others. Some houses were electrified and others were not.

Such government sponsored development programs tend to destroy the fabric of tribal society. For example, government houses were made of tin and built in rows, as opposed to the traditional village wherein mud huts would be constructed in circles. The latter pattern contributed to tribal unity and created a central location for tribal ritual. Government houses were often inappropriate for the climactic conditions, and are frequently used by tribals for storage, while adjacent mud huts are constructed to actually reside in.

Integration into the mainstream culture in this manner seemed to have fostered a culture of dependence. As their self-sufficient lifestyle had been destroyed, tribals depended on government programs to assist them. Furthermore tribal development programs in India are known to be riddled with corruption, with funds often disappearing, or the same project being funded several times while never actually being completed

(Sainath, 1996, p. 10). The women in Raanigade complained of corruption among the government officials in their region.

The Forest department's relationship with the tribals is obviously violent and conflictual. Many tribals interviewed, particularly Gaurama from Maldargate, described having their huts bulldozed and their crops plucked. Any type of autonomy practised by the tribals was seen as a threat to their authority. As mentioned, it became apparent that local level officials had a great deal of leeway in terms of interpreting policy. While political activism has strengthened the tribals position to a certain extent, the forest laws, as variously interpreted, had a very restricting influence on all of their lives.

These restrictions were in many cases coupled with the threat of removal or eviction, either by the Forest Department, National Park regulations or private industry. The Nayakers huddled at the edge of the tea estate in Tamil Nadu had no legal title if the company were to expand. All of the tribals in Nagarhole National Park face the possibility of eviction to the peripheral areas, and the villagers in Ponkavshy, Kerala face imminent eviction due to the creation of a tourist resort. The villagers in Soole Bhavi had been displaced several times due to hydro projects. Such insecurity, in the absence of political activism, can only lead to despondence regarding the future. Cultural disintegration may also result, as mentioned, due to the loss of connection to the new location.



Nayakers in Tamil Nadu

Such cultural disintegration implies an erosion of traditional ecological knowledge, as tribals attempt to acquire the knowledge and skills necessary to cope with the cash economy and interact with the larger, primarily Hindu, culture. Interestingly, while the tribals interviewed had in many cases abandoned traditional lifestyles, their religious worship, including the worship of forest gods, remained consistent. Loss of faith in these gods was cited several times, however. Due to outside influences, such as the increase in elephant population within Nagarhole National Park, invocations to the gods for protection were not always effective. As supernatural and herbal treatments were often combined, a lack of faith in ancestral healings also resulted from a lack of herbal medicines. This affected the position of the headman as the one responsible for the transmission of culture. An erosion of his authority in such areas creates a cultural vacuum. Many tribal "villages" consisting of four or so huts, such as the temporary

settlement which I visited near Periya, would not have a headman at all, leading to a further loss of traditional rituals and healing practices.

Knowledge of forest products, particularly herbal medicines, seemed to be quickly lost due to lack of access or removal from the forest. This has greatly affected the health and nutritional status of the tribals. Even those with adequate incomes, such as Patta, from the small settlement mentioned above, complained that their health was better when they lived in the forest. Some tribal groups are left without any health services at all, with the decline in herbal medicines and an unwillingness to access modern allopathic services. This seemed to be the case in Pulakalalam, where most of the residents appeared to be in a terrible condition, yet expressed an unwillingness to visit the local clinic, due seemingly to a distrust of modern health practitioners and the fact that it was too far away.

Medicinal plants are almost non-existent in the monocultural plantations of teak and eucalyptus, which now make up the majority of forest areas in India. These species make heavy demands on the water table and sub soil nutrients. The increase in such monocultures thus causes a decrease in the availability of minor forest produce as well as small animals, both of which are important to the tribal economy (Dasgupta, 1997, p. 108-109). All of the tribals interviewed complained of a lack of minor forest produce in the primarily teak forests in which they resided. Additionally, the trees themselves have minimal uses for tribals, while native species such as Sal have countless uses for tribals as food, fodder and medicine:

Sal leaves are used for making plates and cups. Sal leaves are used to rear tassal silk cocoons and the ranches are used as fuelwood. Oil is extracted from Sal seeds and Sal cake is used as animal feed and fertiliser. Sal gum is used to make incense (Venkateswaran, 1995, p.100).

Tribals removed from the diverse forest environment lose their connection to this forest, and may even resort to destructive activities in order to secure a livelihood. The Nayaker group in Tamil Nadu had resorted to headloading firewood for sale:

The increase in headloading by tribals is a reflection of the feeling that the forest no longer belongs to them and rather belongs to the forest officials and contractors. They are no longer responsible for the well being of the forest. In this situation, all they can do is fight for their own survival, by making the most of the forest and its resources (Dasgupta, 1997, p.108).

Environmental degradation or enclosure of park areas causes a loss of a forest connection and thus an irreplaceable loss of knowledge regarding forest resources. There is an increasing recognition in the literature that this disjunction between the tribal and the forest economy in India will have adverse consequences for both (Ghate, 1992, p.171). However, such attitudes are not always implemented in policy. Prohibited from practising sustainable practices such as forest collection, tribals often are forced to join forces with timber smugglers, loggers and engage in plantation labour. Such activities enable them to secure a livelihood in the monetary economy, which was heretofore unknown to them. Almost all of the tribals interviewed were employed in tea or coffee plantations, which were in part responsible for the initial destruction of their natural forest.



Tea Plantations near Kotagiri

Taboos and social control mechanisms that protected the environment may break down in the context of a shortage of resources. In the Northeast where shifting cultivation is practised, lack of available forest land compels tribals to reduce the fallow period, causing soil deterioration and a resulting lack of production (Fernandes et. al, in Fernandes, 1997, p. 32). Additionally, as they are incorporated into the cash nexus, communal attitudes as well as respect for the environment, may disappear as individualistic and commercial values are internalised (Dasgupta, 1997, p.121). For instance, in Raanigade, individual plots had replaced communal ones and the concern was with increasing cash income, not with the environment. Merchants and moneylenders accompany industrialists when forestry or mining operations are introduced to an area. These agents tend to exploit the situation of shortage, leading the tribals into indebtedness and debt bondage as well as causing land alienation (Fernandes, 1997, p. 32).

With the gradual take-over of traditional tribal homelands by outsiders with little respect for tribal culture, derision by those who may be perceived to be socially and economically superior, results in tribals denigrating their own culture, desiring instead to emulate mainstream Hinduism (Thekkekara, 1993, p.79). Additionally, the integration of tribals in mainstream education systems not only promotes the dissolution of tribal languages but also does little to foster an appreciation of their own culture. Only one of the communities that I visited had a tribal school. The choice then was either no education, or mainstream schooling that leaves the child alienated from his/her own culture.

The reciprocal relationship to the environment on which tribal culture is based also tends to vanish when land tenure is insecure, forcing tribals to compete with others for limited resources. As mentioned, the majority of previously tribal owned common land has been alienated by industrialists and agriculturists since the colonial era, with the remainder coming under the control of the Forest Department. Additionally, the colonial government instituted a system of land revenue that transformed chiefs into landlords, forced to collect revenue for the British (Dasgupta, 1997, p.113). Many tribals now find themselves in the unenviable situation of either being considered "encroachers" in park areas or reserved forests, or eking out a living on the fringes of what used to be their territory. This was certainly the case for those living within or adjacent to Nagarhole National Park, who were facing the threat of eviction.

Addiction to alcohol is prevalent in such a situation, and was a problem cited by most of the tribals interviewed. Alcohol has been a destructive force for indigenous peoples throughout the world, and in India the situation is no different. Tribals are easily lured by the attraction of alcohol, and many have lost their land for a pittance to outsiders under its influence. Forced to work on the land of others and with an addiction to arrack to support, many tribals fall prey to vicious moneylenders. The conjugal unit

has often been described as a very close one in tribal cultures, but this changes when the man is addicted to arrack. With the majority of the wage vanishing in this manner, and male violence increasing commensurately, the situation of women and children is particularly vulnerable. When men control the majority of the income, and are addicted to arrack, extreme poverty and exploitation by moneylenders is the predictable result. Men may drink on credit all week, with their cheque at the end of the week therefore being virtually negligible. Usha, the young Nayaker woman from Kerala, spoke of many families not eating properly for as much as a week at a time due to male alcoholism.

The general disintegration of tribal culture and the emulation of Hinduism has had a particularly devastating impact on women, as tribal women have traditionally enjoyed a greater degree of freedom than caste Hindu women. Hindu values of male dominance and restrictions on women's freedom were evident among the women interviewed, even where Hindu religious practices had not yet taken hold. These factors, coupled with male violence under the influence of arrack, as well as the prevalence of sexual exploitation of tribal women by outsiders, has made the lives of tribal women increasingly difficult. This became quite clear (at least to everyone who spoke Kannada!) at the two day women's meeting held by CORD, where the women in attendance apparently discussed quite openly the problems they faced dealing with violent and dominating men, as well as with the increase in external pressures from money lenders, and harassment from Forest Department officials.

These issues are also well documented in the literature on the tribals of the Northeast region, where women's participation in all aspects of social life was traditionally so visible that it has sometimes been described as a "female economy" (Fernandes, in Dasgupta, 1997, p. 119). Women played a dominant role in shifting cultivation, which is diminished with the transition to settled agriculture, where a taboo often exists regarding women using the plough. Such taboos reinforce male land rights

and become a symbol of male dominance, as tribal systems disintegrate. Male dominance increases with the transition from gathering to settled agriculture, coupled with the transition from communal to private ownership, as farm income tends to be controlled by the male as owner of the land. Settled agriculture brings with it a whole new order of class and gender stratification that does not exist among shifting cultivators (Venkateswaran, 1996, p. 7). Shifting cultivation was more common among the North-eastern tribes, and only the Nayakers mentioned ever having practised it. In the case of the tribals of the South, inequities and male dominance seemed more prevalent due to the transition from hunter gatherer societies to dependence on cash labour, where men retain control over income, and may spend it on arrack. While women often worked on plantations as well, their incomes tended to be less, as women are not protected by minimum wage laws. In Murkala Village, the Headman stated that women worked more days and were more committed, however, their wage would be less.

Conditions of abject poverty may leave women particularly vulnerable to sexual exploitation by non-tribal men. Seeing the sexual freedom of tribal society as an opportunity for casual relationships with "easy" tribal women, non-tribals attempt to turn them into prostitutes. Many such women lured into prostitution are now single mothers with no source of support. Additionally, non-tribal men may promise marriage and then abandon the woman, leaving her alone with the baby. While this phenomenon has become a heated political issue in Kerala, the courts have generally been unsuccessful at making errant fathers pay adequate compensation. The Shreyas Tribal Development Workers have been very committed to combating this issue through increasing the awareness of women.

In tribal cultures there was traditionally no stigma surrounding widowhood or divorce, and women have a choice with regards to sex partners. Most of the tribals interviewed spoke about the tribal couple eloping in the forest, and then returning to be

accepted as a married couple. Additionally, there was no dowry system, but rather the value of women to the society was reflected in the practice of bride price. This higher value of women in tribal societies is also reflected in the higher survival rate of the female child compared to that of Hindu culture, where female abortion or infanticide has led to an imbalanced sex ratio. In contrast, there has never been a system of son preference in tribal society. With the transition to Hindu practices, these customs are changing; dowry is replacing bride price and arranged marriages are increasingly common (Dasgupta, 1997, p.119).

At the household level, a transition to Hindu values leads to a more chauvinistic division of labour. Maria Thekakara of Accord, notes that the modernising Mullukurumbas began to exhibit this tendency, whereas the Paniyas, Nayakers and Bettekurbas still retained closeness in their conjugal unit as well as more gender equality (Thekekarra, 1993 p. 80). Women's freedom tends to diminish as adivasi society attempts to emulate Hindu caste society in efforts to attain upward mobility (Venkateswaran, 1996, p.15).

Deforestation also erodes gender equality among adivasi societies. When forests are nearby and plentiful, both men and women participate in activities such as fuelwood collection. In conditions of fuelwood scarcity, the responsibility for collection tends to be transferred solely to the woman. In states such as Orissa, the average distance required to collect fuelwood has increased from 1.5 kms to 7.5 kms. (Deeney and Fernandes, 1992, p. 64). While such collection of dead wood is officially allowed, often collectors are harassed for bribes by forest officials (Venkateswaran, 1995, p.69). The majority of the women in this study resided in forest areas so did not complain of a lack of fuelwood, however the increase in monocultures did cause them to complain of a lack of forest products in general. Women tend to be most involved in the collection and processing of minor forest produce such as fruits and herbal medicines. Forest based

industries such as the processing of Bamboo and collection of Tendu leaves become increasingly difficult with deforestation and the increase in private property.

Nationalisation of certain minor forest produce has meant a total dependence on government departments or contractors appointed by the government for marketing purposes. The official rates remain extremely low compared to the retail price for such products. Lack of storage or processing opportunities also compels tribal women to sell raw products locally at whatever price is available. This often results in exploitation. Studies have indicated that the Forest Department and businessmen are equally exploitative. Large Area Multi-Purpose Societies (LAMPS) was set up by the government to ensure fair prices for tribals, but these co-operatives have often been ineffective. There are many examples of tribal exploitation in this regard. For instance, in 1981, tribal women collecting Sal seeds in Madhya Pradesh received less than 1/5 of the total income generated by their labour (Chambers et. al in Venkateswaran, 1995 p.61). The women in Pukalalaman, who were dependent on collection of MFP for their entire income, also claimed that the marketing society was exploitative.

Much of the NGO intervention entailed increasing the value added to minor forest produce as well as advocating for higher prices for MFP. VGKK, the tribal NGO in the BR Hills, has a whole department devoted to the sustainable harvesting processing and marketing practices for forest products. CORD instituted a cartel breaking operation which increased the price of honey sold by Jenu Kurumbas from 10 rupees per bottle in 1990 to 60 rupees per bottle in 1992 (Cheria et. al, 1997, p. 50).

Lack of income, as well as decreases in forest products for subsistence leads in many cases to an inadequate diet among tribals. Some tribals complained that health had decreased even though income was adequate, as the traditional forest based diet was more nutritious. Also extreme environmental conditions such as droughts and floods have increased with deforestation. Traditionally, tribals were sustained in lean

times by the presence of famine foods from the forest, as well as through the support and co-operation of the community. With the social network weakened and famine foods unavailable, the woman trying to provide for her family faces immense difficulty (Fernandes, 1997, p.33). According to Hindu custom, male family members will get priority when it comes to food distribution, and the health of the tribal woman suffers further (Fernandes, 1992)(Dasgupta, 1997, p.119).

The prevalence of anaemia among the tribal population is a new phenomenon. Many young Paniya mothers have died from lack of protein. Women may conceive 8-10 children but only 2-3 will survive (Thekekarra, 1993, p. 71). The Chetti woman interviewed at the beginning of this study had lost nine babies. With rising food prices and lack of opportunities for agriculture and forest collection, hunger is an increasing reality. Rice and chillies becomes a fairly typical meal. The poor health of tribal women has led to an increasing trend of men abandoning their wives for younger women. In response, many young Paniya women are choosing to stay single, in order to avoid the health crises that childbirth brings in conditions of scarcity (Thekekarra, 1993, p.72).

The transition from a dependence on common property resources to private property has also been detrimental to the position of women. Until the end of the last century 80% of India's natural resources were common property and only 20% privately owned. Now the situation is reversed, with 55% of natural resources being privately owned and 28% under the control of the Forest Department, leaving only 4% as common property (Shiva, 1988, in Venkateswaran, 1995, p. 42). The Nayaker Headman in Tamil Nadu remembered when 'their' forest stretched for miles in every direction. Women depend on common property for fodder and fuel wood collection, in addition to other forest products. Women, no matter what their marital status, have traditionally benefited from equal rights with respect to common property resources, and therefore did not depend on men for a livelihood. While women would have usufruct

rights on common property as well as some voice in resource management, with the transition to private property, land titles are generally only given to men. Women thus become dependent on men, and widows lose their rights to land. Even in cases where tribal land is restored, it is done so in the form of a private ownership deed, which will lead to a transfer of power to the hands of men. Additionally, the transition to private property does not lend itself to the revitalisation of traditional systems.

Women had a major role to play in these traditional systems, yet are now often being completely marginalised from afforestation programs such as social forestry or joint forest management, which are often under the control of male leadership through village panchayats. Women are often not aware of project details such as systems of management and benefit distribution. Additionally, planting non-native commercial species on land previously used for agriculture, has generally led to a substitution of male for female employment, as well as an overall loss of employment of 250 person days per year (CSE 1985, Venkateswaran, 1995, p.98). Government sponsored social forestry programs have often failed to take into account women's needs, by actually reducing biomass resources through the conversion of common lands into plantations. Monocultural plantations not only reduce the availability of fuel and fodder, the collection of which is the woman's responsibility, they also mitigate against the use of minor forest produce (Venkateswaran, 1995, p. 100). While increased income may benefit men, the overall impact on women has often been negative.

This is quite typical of a development process which, in India, has tended to neglect both women and the environment. The fact that women play a major role in terms of natural resources, and that the degradation of these resources therefore has a dramatic impact on them, is now fairly well established in the literature (Venkateswaran, 1995, p.12). In spite of the fact that women are often the primary forest users, implementing gender sensitive resource management programs has been difficult within

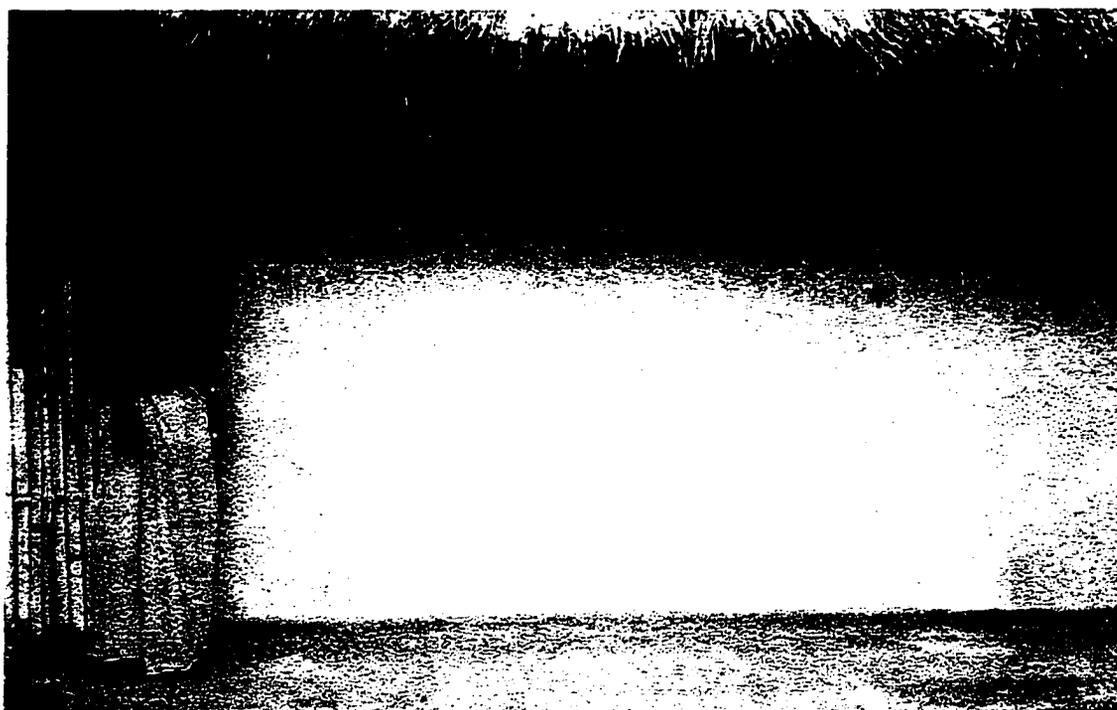
the context of strongly male dominant Hindu culture. There are also many cultural constraints such as "purdah" which make communication between male Forest Department staff and village women difficult, if not impossible. Joint forest Management Programs in Orissa and Haryana have attempted to combat this problem by hiring female forest department staff in order to interact more effectively with village women (McGean et al., 1996, p. 246). Cultural barriers may exacerbate these difficulties as women seem to be more strongly identified with their ethnicity, and less likely to adopt Hindu customs than men. They were more likely to be seen in traditional tribal dress (Thekeakara, 1993, p. 75), and may be more likely to be conversant strictly in the tribal language.

While some Hindu customs had been adopted by the tribals interviewed, in terms of religious ritual, only the Ganesh (elephant) festival was mentioned as being important. This is interesting given the importance of the elephant to tribal culture, and the potential danger to their livelihoods that the elephant represents. This danger has increased due to the protection afforded them in national park areas, in addition to the fact that teak monocultures do not provide elephants with sufficient food, forcing them to forage in tribal villages. These factors may have led some tribal groups to adopt this Hindu custom in addition to their traditional tribal rituals.

In spite of alienation from their environment through external forces and developments, there was still evidence of a connection with nature among the tribals interviewed. While specific biological knowledge, such as the names and uses of herbal medicines seems to be quickly lost, traditions such as praying to forest gods or invoking spirits for protection against elephants seemed to endure. For instance, while in Handigodde knowledge of herbal medicine was lost in one generation, Bairrama described sowing and harvesting rituals that are still practised. These involve sharing food with the earth, implying that there is no perception of a separation of humans from

nature. In Nagarhole National Park, Headman J.K Thimma described a god seeing ritual wherein the god or ancestor was to be found in a certain tree. These rituals still take place, in spite of the fact that most members of the village make their livelihood from labour on coffee plantations and collection of most forest produce is forbidden. In Raanigade, the women had no desire to return to a life in the forest, yet Banyan trees were still worshipped.

While there is much evidence in the literature to indicate that cultural erosion among tribals leads to an abandonment of an ecological worldview (Fernandez, 1992), this had not yet taken place among most of the tribals in this study. Even while many specific elements of traditional ecological knowledge had been lost, the values and ethics which were sustainable to the environment, had in many cases remained intact. On the home of Babu, the BKS leader in Nagarhole, he has inscribed "Self rule is our birthright, the forest is our mother, we are the children of the forest. Nagarhole forest is our grandfathers habitat."



Babu's Hut

This approach to nature held by the tribals, which sees the soil as the mother and the people as her offspring, has for the most part been replaced in India, through the processes of colonialism and development, by an approach to nature which sees the soil only in terms of territory to be conquered (Shiva, 1993, p. 105). This latter approach is a natural corollary to a scientific worldview that considers nature to be made up of soulless matter. Since the time of Descartes, the Western world has been dominated by an ethos in which matter and spirit are considered to be antithetical. Under Cartesian science, the image of the earth as a machine replaced the ancient model of the world as a living organism (Suzuki, 1997, p. 192). These ideas also find support in Christian theology, which rejected Pagan beliefs in which natural phenomenon are inhabited by spirits (Kinsley, 1996, p 105). In dismissing such animistic beliefs, and rather assuming the natural world to be a disconnected collection of lifeless matter, with human beings placed in a conceptual position of having dominion over such matter, the commodification of nature in order to serve human purposes follows as a logical conclusion.

This Cartesian worldview is now being criticised by ecologists for fuelling the present environmental crisis, and alternative ideals such as the Gaia hypothesis are now finding expression in Western culture. However, in the context of a developing nation such as India, the dominant ethos of globalizing economics is having the greatest impact. The expansion of this global capitalist project, based on the principles of hegemonic Western science, unsurprisingly encourages commodification of both nature, and those people closely dependent on nature, as resources and labour for profit oriented enterprise.

The global reach of capitalist enterprise, as well as its rootlessness, makes it particularly destructive to the environment. Traditional cultures often relied on one ecosystem for all of their needs, thus they were motivated to ensure the sustainability of

that ecosystem. Sustainability would be considered a priority over output or income in the short term. Without this direct dependence, there is little motivation to protect the environment. Rootless Westerners can move on to destroy other areas if their local environment becomes unliveable (Perreira, 1992, p. 197). For instance, polluting industries are often relocated to the developing world when there is too much opposition to their activities in their home countries. The institution of these industries may then cause the uprooting of local people. As Vandana Shiva points out (1993, p.98), the twin phenomena of globalisation and development have thus made homelessness a cultural characteristic of the twentieth century in both the developed and developing worlds.

There is also an opposition in terms of conceptions of time between tribal and the dominant global culture. Western capitalism is concerned with profit in the short term and the instant gratification of consumerism. In indigenous cultures, present generations are considered stewards of the forest or other ecosystem, holding it in trust for future generations (Colchester, 1994, p. 80-82). Just as there is no division between humans and nature, there is also a connection between past, present and future, the natural and the supernatural. Ancestors and gods both dwell in the forest and offer guidance in tribal affairs. This integration of the spiritual and material realms was apparent among the Jenu Kurumbas of Nagarhole National Park. Within tribal culture, time is considered cyclical instead of linear as in Western culture. A linear concept of time suggests the need for "progress" and improvements as is apparent in the prevalent modernisation model of development. In contrast, as Perreira (1992) found among the Warlis of Maharashtra state, the cyclical concept of time enabled them to cope with day to day sustenance with an absence of anxiety regarding the future.

Gathering cultures are known to treat the forest produce as gifts of nature rather than as the products of their own labour. There was no concept of land ownership, their relationship with the environment being one of reciprocity. The land is not just used, but

"fundamentally lived" (Howard, 1993, p.74). The task of the tribals was to ensure the continuity of nature's bounty, rather than to extensively manipulate the environment for their benefit. This task is guided by the belief in tree and nature spirits, which precludes the harming of the forest environment unless absolutely necessary.



Nagarhole Huts

In terms of attitudes towards the environment, there traditionally existed a degree of compatibility between this animism of the forest people and the Hindu culture of the plains. Globalisation has obviously eroded these environmental ethics to a certain extent, but there are many elements of Hindu theology that promoted sustainability. Trees were considered to be animate beings and are still worshipped in Hindu culture. The planting of a tree is considered a sacred religious duty. Hinduism sanctions the human use of natural resources but does not promote the idea of dominion over the natural world. The Hindu belief in trans-species reincarnation led to a respect and reverence for nature. The supreme being was apparently reincarnated in the form of

various species. These beliefs promote the ideals of "ahimsa," non-violence towards animals and human beings (Dwivedi, 1996, p. 155).

In contrast, Western Capitalism, rooted in the twin forces of Christianity and the scientific method, directly opposes the animism of indigenous cultures. Christianity rejected outright Pagan worldviews characterised by the idea that nature is permeated with spirit. Classical Western science rejects all forms of knowledge attained outside the reductionistic scientific method. Together these forces have reflected an intolerance of diversity and a drive to dominate (Broomfield, 1997, p. 58). Development based on scientific principles and capitalist ideology, coupled with religious missionary zeal, have effectively destroyed many indigenous cultures throughout the world. Such cultures, with their communal land owning patterns, close connection to nature and non-consumerist lifestyles, are often seen as barriers to modernisation policies as envisioned by national governments. "Development" under this paradigm, thus often requires a police state and terrorist tactics (Shiva, 1993, p.99). Genocide is then viewed as an unfortunate, but essential component of development.

In Indonesia, Javanese transmigration to the outer islands is part of a deliberate government attempt to eliminate "backward peoples" from the region, through land alienation and Javanese acculturation (Nietschmann, 1988, p 192). Here in Canada, the residential school system was ostensibly instituted for the benefit of native children, when in reality it was an attempt to destroy their culture, as it tore many children from their villages, and forbade them from speaking their native languages or practising their traditional rituals.

In India, atrocities are repeatedly committed against adivasis, frequently due to disputes over land, bonded labour or wages, but also with an official sanction in the name of "development." Forced displacement for hydro, mining or forest projects have been frequently accomplished with the aid of fire and elephants to burn and trample

huts. Gauramma from Maldargate had first hand experience with this type of intervention, as the huts in this tribal village were repeatedly burned or trampled under Forest Department direction. As has been the case with India, in the drive to "develop," many nations are exploiting their natural resources at a rapid pace through the annexation of these indigenous territories, without regard for the fate of the indigenous peoples dependent upon these resources:

Territorial consolidation, national integration, the imperatives of population growth and economics, are phrases used by Third World states to cover up the killing of indigenous nations and peoples. Over 1/2 of the world's conflicts are fought over Fourth World geography, not East West politics or North South economics (Nietschmann, 1988, p. 192).

This violence is not recognised by the dominant media, as the governments explanations for genocide are readily accepted by adherents of the hegemonic modernisation model of development. Indigenous peoples consider this a form of colonisation, contending that "colonisation is no less colonisation if it is made by territorial contiguity than by overseas expansion" (Rehman, 1998, p. 74). Resource development such as mining, when not actually displacing tribals, pollutes and destroys their environment, while failing to provide promised benefits such as employment. Such mining projects, tend to be capital intensive, and demand highly skilled labour which is imported from outside. Such enclaves are geared for markets out of the area, likely international, while encouraging influxes of outsiders who often exploit local tribals. (Dasgupta, 1997, p.119).

As mentioned, hydro projects are the most destructive to tribal life as they displace tribals from their homelands in large numbers, often without compensation. India is famous for its immense dam building projects, they have even been described as the modern temples of the Indian state. According to one estimate, approximately 2500 persons are displaced per dam, the majority of them tribals (Fernandes, 1992 in Dasgupta, 1997, p.117). A total of 15 million have been displaced during the four

decades of planned development in India (Shiva, 1993, p.99). Often the same persons are displaced more than once, causing severe community and cultural disintegration. The inhabitants of Soole Bhavi, near Kushalnagar, had been displaced by the Harangi dam and then subject to harassment in their new location. While thousands of tribal villages are uprooted, the benefits of these projects are generally for urban dwellers outside of the area. Tribal villages are never electrified as a result.

As tribal land is often communally owned, it is not assessed as being compensatory property. Even after four decades of conflict regarding such development policies, common property resources such as those held by tribals are still not officially recognised. Vandana Shiva (1993) attributes this lack of recognition on the part of project planners to the allocation of a Cartesian category of space in substitution for a sacred category. Within this conceptual framework, it becomes possible for development technocrats to casually label their activities "the management of involuntary resettlement," without any understanding of the implications of their activities. Due to their lack of exposure to the external society, tribals so displaced suffer more than others (Fernandes, 1997, p. 33). As with mining projects, the jobs available are highly technical, and out of reach of the tribal families displaced. Communities are broken up by such schemes, resulting in a lack of solidarity and leadership. The whole fabric of society collapses under such stressors.

These incursions into tribal territory are everywhere being resisted. In Nagarhole National Park, organised resistance has thus far been successful in stopping construction of the Taj hotel and is now working on preventing the eviction of tribal communities. In Handigodde village, the adivasis cut the eucalyptus that the FD planted on what was supposed to be their land. The return of this land to the rightful adivasi owners was obstructed and delayed by the FD, in spite of many written reminders (Cheria et. al., 1997, p. 52). The Jharkhand movement in North India, has been active

for over 15 years in agitating for a separate tribal homeland, in order to retain control over natural resource development. These movements represent an opposition to the present model of development which sees nature only in terms of resources for industrial exploitation, and deprives indigenous peoples of their way of life without providing an acceptable alternative:

Development interventions aimed at commercialisation of natural resources transforms commons into commodities, deprives politically weak communities of access to resources and robs resources from nature to generate growth on the market for more privileged groups in society. This transformation in the third world is often state mediated, though the final outcome is privatisation (Shiva, 1992, p.49).

The increasing recognition of global environmental problems resulting from this industrial development model, has also ironically led to violence against the adivasis in India. The remaining forest areas are now important as a global resource in terms of biodiversity and as carbon monoxide sinks. As such, India's forests must be protected from the supposedly environmentally destructive activities of the adivasis. Meanwhile, adivasis have lived for centuries in these forest environments that the government has suddenly decided to conserve. The term "conservation" now arouses fear in the adivasis, as it is connected with efforts to harass and dislodge them from their territories (Varghese and Thekaekara, 1996, p. 235). Continuous efforts have been made by the Forest Department in some areas to delink the adivasi from the forest by blocking pathways, digging up routes leading to the forest and preventing the adivasi from entering the forest to practice their traditional rituals (Nagarhole BJHS, 1997, p.12).

The implementation of such strategies to promote environmental protection is based on Western conservation ethics, advocating the separation of people from nature- the "fence and protect" ideology. The adivasis living inside national parks such as Nagarhole, are in effect declared illegal residents by the prevailing Wildlife Act (1972). Between 1975-1984 as many as 34 adivasi hamlets were forcibly removed by the Forest

Department from the Nagarhole area. Nagarhole was declared a wildlife reserve in 1975 and upgraded to a National Park in 1983. Many adivasis were forced to work on timber plantations outside the park in concentration camp like conditions (Nagarhole BJHS, 1997, p.12). By illegitimatising the presence of the adivasis living inside such sanctuaries, the government has given tacit approval for forced evictions, condemning tribals to the life of an "ecological refugee, a fate which for many is worse than death" (Nagarhole BJHS, 1997, p.3)(Guha, 1998, p.24). Such extensive tribal displacements have occurred in 14 tiger reserves and 234 national parks throughout the country (Dasgupta, 1997,p.116):

National Park management in much of the Third World is heavily imprinted by the American experience. In particular it takes over two axioms of wilderness thinking: the monumentalist belief that wilderness has to be big continuous wilderness, and the claim that all human intervention is bad for the retention of diversity. These axioms have led to the constitution of huge sanctuaries, each covering thousands of square miles. At the same time no thought has been given to the conservation of diversity outside of these strictly protected areas (Guha, 1998, p.23).

In developing nations such as India, where the majority of the population, both tribal and non-tribal, are dependent on locally available biomass for their subsistence, such policies are untenable, and lead only to the increasing degradation and overcrowding of unprotected areas. Furthermore, both of these axioms of American wilderness thinking have been found to be false, as limited human interference has actually been found to lead to an increase in biodiversity, while conservation has proven to be more viable in the context of smaller protected areas spread over a wider territory (Baviskar, 1996, p.116). As Vandana Shiva has repeatedly pointed out (1993), conservation of the environment must be linked to the livelihood concerns of the local population. Thus the separation of production from conservation, and production from consumption, is responsible for both increasing poverty and environmental destruction in the developing world:

Instead of building conservation programmes based on their (tribal women) culture, values, skills, knowledge and wisdom, dominant conservation strategies erode them, and thereby create conditions for the erosion of biodiversity as the basis for sustainable livelihoods and production systems...For cultures and economies which have practised diversity, biodiversity is a web of relationships that ensure balance and sustainability (Shiva, 1993, p. 171).

The sustainable subsistence lifestyle of the adivasi, and the ethics on which it is based, is thus at odds with both scientific forest management, involving the creation of monocultures and industrial clearcutting, and Western scientific conservation models which involve the separation of people from nature. In India, the conflicts between these opposing worldviews have been exhibited through the history of forest use conflicts and disparate beliefs regarding the causes of deforestation. The conflicts between industrial use of forests, as well as government reservation and protection policies, versus subsistence use practised by tribals, (as documented in Chapter Two), have dominated the political context of India since the advent of colonialism.

The recent attempts by various state governments to reconcile these conflicts through Joint Forest Management initiatives represent an initial attempt to link local livelihoods with environmental conservation. This concept has also been extended to the management of protected areas through JPAM, Joint Protected Area Management. Such initiatives attempt to promote environmental conservation by providing local people with the benefits of such conservation. This shift involves a transition in the conceptual understanding of forests, which are today viewed either as plantations from the industrial perspective, or as trees and wildlife to be preserved. Rather an understanding of forests and their preservation as central to the development of tribals and other forest dwelling communities, needs to dominate the formulation of policies regarding the future of India's forests. This is the view taken by all of the NGOs with whom I visited. While this is the philosophy behind community based resource management, as JFM and JPAM are government promoted initiatives under the control of the Forest Department, it

remains to be seen how closely these programs adhere to the community oriented principles of this development model.

CHAPTER SIX
COMMUNITY BASED RESOURCE MANAGEMENT
INITIATIVES: JOINT FOREST MANAGEMENT, JOINT PROTECTED
AREA MANAGEMENT AND TRIBAL SELF RULE

As should be apparent from the foregoing discussion, India's forest areas have suffered increased degradation under state and industrial management regimes. Federal policies of nationalisation and commercial exploitation have been shown to be responsible not only for severe deforestation, but also for undermining community management systems, which further contributed to forest degradation. At the same time, conservation efforts geared at protecting forests and wildlife have also been largely unsuccessful, as they have not taken the subsistence needs of local people into account.

Restoring the vested interest in forest protection that tribals have traditionally held, is the most important aspect of forest protection and regeneration. The development of these human communities should ideally be integrated with the regeneration of forests. Thus what is needed is an approach which recognises and aims to re-establish the symbiotic relationship which has traditionally existed between local communities and their forests (Chaudhuri, 1997, p. 245). This implies a revitalisation of traditional ecological knowledge and resource management systems. This concept, namely community based resource management, is increasingly being recognised among all sectors involved in the forest debate in India, including NGOs, the Forest Department, and government policymakers.

Progress towards community management has been hampered by the extent of state ownership of India's forest lands (97%), as well as official attitudes regarding the causes of deforestation. As subsistence use is still often regarded as the primary

causative factor, official programs are developed on this basis. For instance, The Social Forestry Programme was more of an attempt to discourage the exploitation of reserved forests by locals, rather than an effort to involve locals in forest activities which would really meet their needs. This program was officially launched following the recommendations of the National Commission on Agriculture in 1976, and involved plantation forestry to produce biomass, thereby encouraging the protection of reserved forest areas. Social forestry has been criticised for being geared to market demands rather than the local needs for which it was supposedly intended, and for not involving any devolution of authority to local communities. Generally policies were enunciated by international donors, thus they usually served the interests of developed nations and industry (Burman, 1997, p.180). As such, Social Forestry Projects became sources of contention, as they were frequently taken over by rich farmers.

In Karnataka, such afforestation programs also became a means for big landowners to avoid the Land Reform Act, thereby furthering inequities (Chaudhuri, 1997, p.241). These large landowners would then proceed to grow commercial species in order to further their personal income. This was also a political imperative as:

Such individuals received the maximum co-operation from the state and commercial interests. When these schemes became a community rebuilding effort, they met with opposition from the same sources. No land was made available to them nor was technical assistance provided. The opposition grew stronger when women wanted to find an equal voice in decision making (Fernandes, 1992, p. 35).

The choice of commercial, as opposed to fruit and fodder species, is therefore also due to the purposeful neglect of women in such programs. Women, rarely, if ever, benefit from commercial tree plantations as they have no access to or control over the income accrued. When women's involvement is solicited, they would demand the planting of trees more useful from a subsistence perspective.

Actual joint management of reserved forests, involving the extension of rights and benefits to local communities in exchange for forest protection, gained momentum in the 1980s, with West Bengal taking the initiative in this regard. West Bengal had a young and progressive Forest Department, as well as a Socialist government in power at the time of these developments. Under Joint Forest Management, degraded reserved forest areas are given to local people's committees—often called Forest Protection Committees, for management, with the understanding that the minor forest produce will go to the people, and any income generated is shared by the people and the Department (Burman, 1997, p. 180). Joint Forest Management in West Bengal has been credited with reducing out-migration from rural areas, increasing the quality of land and thereby reducing the workload of women, as well as with halting the erosion of traditional ecological knowledge and community integrity within tribal areas (Malhotra, 1996, p.5). These tribal Forest Protection Committees functioned best of all, due to the higher dependence of tribals on forest produce and their more intimate knowledge of the forest ecology (Malhotra et al, 1991 in Gadgil and Guha, 1995, p. 143).

Many FPCs developed spontaneously at the village level, and were later acknowledged by the Forest Department (FD). These grassroots movements are particularly prevalent in the nation's poorest regions and among tribal communities. For instance, Central eastern India, where such community environmental activism has been most apparent, is also the region of the greatest poverty as well as the highest percentage of tribals (Poffenberger et. al., 1996, p.28). The pace at which grassroots environmental movements spread in this area, throughout the 1980s, is unprecedented in Asia (Poffenberger et. al., 1996, p. 26). While such grassroots community efforts were taking place throughout the nation, it was only in West Bengal where official efforts were aimed at supporting them. While the National government did not oppose the community take-over of these degraded lands, as they were of little commercial value, it

was not until the late 1980s that the value of such initiatives began to be recognised by the Indian government.

Joint forest Management was thus given official sanction at the national level, through the 1988 National Forest Policy which proposed a "peoples movement to protect forest resources." This relatively enlightened piece of legislation emphasised the need of local people's participation in forest management:

The National Forest Policy of 1988, envisages peoples involvement in the development and protection of forests. The requirements of fuel, wood, fodder and small timber such as house building material... are to be treated as first charge on forest produce. The policy document envisages that the forest committees should be motivated to identify themselves with the development and protection of forests from which they derive benefits (Poffenberger, 1996, p. 62).

In 1990, the Ministry of Environment and Forests passed a resolution directing State Governments to involve local communities in the implementation of forestry programs and providing broad guidelines for Joint Forest Management (JFM). These stipulated that "exclusive rights to forest products be extended to those villages effectively protecting public forest lands" (Poffenberger et. al., 1996, p. 27). By 1994, resolutions were passed by 16 states based on these central guidelines, thereby providing mechanisms for facilitating communication between forest villages and the government (Poffenberger et. al., 1996, p.27).

Unfortunately, these other states had some difficulty in garnering the success of the West Bengal experience. Often Forest Protection Committees interfered with rather than built upon traditional resource management systems. Additionally, while some authority was granted to the local committees to institute protection regimes, no ownership or lease rights were extended, thus the forest essentially remained the property of the FD (Baviskar, 1996, p.108-109). As a result, management agreements could be altered or nullified by the FD without explanation, which discouraged community commitment and involvement. Some feared that JFM was a means of co-

opting tribal villages thereby bringing them under government control. They had no desire to have their FPCs officially registered with the FD. In other areas, recognising that small protection schemes were vulnerable to collapse, villagers were eager for the official sanction provided by Forest Department involvement (Poffenberger et. al. 1996, p.27).

Kiran Desai et al., have outlined several conditions which must be met in order for people to voluntarily protect their forests, and therefore for JFM to be successful; people must feel that the forest belongs to them, and their rights to the forest are therefore clear, assured and officially respected. A system of collective decision making must be in place and conflict resolution should be based on existing knowledge. The official relationship with the people must be transparent, conducive and supportive (Desai et al, 1996, p.142).

Even in West Bengal, which now has 3000 Forest Protection Committees, there are problems of corruption and deception among the FD that mitigates against the development of such a "transparent, conducive and supportive relationship." There is also a cultural clash, as the FD does not always understand and respect the tribal communal systems (Burman, 1998, p. 181). The Forest Department has been unaccustomed to involving local people, particularly women, in forest development activities. In addition, placing the control of resources under regional panchayats, as opposed to local user groups, has been unsuccessful as panchayats are oversized, undemocratic, and male dominated (Colchester, 1994, p. 91).

Joint Forest Management has demanded new roles for FD staff, who are traditionally used to policing and fining local people accused of "forest crimes." The shift to involving staff in the facilitation of Forest Protection Committees is quite a dramatic one, and involves a transformation in perception on both sides. The Forest Department has long operated with the perception that local people are the destroyers of the forest,

while locals, particularly tribals, have historically had a contentious relationship with FD officials. The Forest Department was initially associated with commercial timber exploitation and new perceptions are required in order for department staff to recognise the multiplicity of uses tribals gain from forests. Additionally, corruption within the ranks of the Forest Department is startlingly rampant, with timber smugglers often operating with the complete complicity of the Forest Department in the area. (Nagarhole BJHS, 1997, p. 4).

While the federal government supports JFM on the one hand, it also continues to promote other unsustainable development policies, including the granting of leases of forest land to individual industrialists for exploitation (Berdan and Pasimio, 1994, p.9). Additionally the forests of the Western Ghats in the Nilgiri Biosphere region have been described as the backbone of the ecology and economy of South India" (Poffenberger et. al. 1996, p.43), yet they are now severely degraded by the continuation of such activities. Prior to colonisation, the forest land in this area was managed by local communities utilising a system of sacred groves interspersed with designated use areas. Over the past two centuries, nationalisation and commercial exploitation of timber has caused severe forest degradation, while disrupting traditional management systems. Fortunately, the government of Karnataka promulgated a resolution on Joint Management in 1993, and NGOs working in Kerala, Karnataka and Tamil Nadu, have been involved in encouraging local forest protection activities (Poffenberger et. al., 1996, p.44).

Such initiatives undertaken by voluntary organisations working with tribals have often been more successful than official government programs. These attempts to rebuild the material base of their livelihood emerge naturally out of their struggles against exploitation by merchants and moneylenders. Thus forest regeneration serves the dual purpose of rebuilding their livelihood and their community (Fernandez,

1997,p.248). The fact that the community retains control over such initiatives, as opposed to the Forest Department, likely contributes to their greater success. In the past, because "control over resources was with the community that depended on them directly for its livelihood, sustainable use of the resource was not merely possible but also inevitable" (Fernandez, 1997, p.26). In the modern context, where absolute dependence on forest resources may no longer be a reality, such systems may have to be altered to meet new needs.

Traditional management systems may have to be adapted to modern contexts in order for JFM to be successful. For instance, traditionally tribals did not plant trees because their culture ensured regeneration through natural processes. However, in the new context of severe forest degradation, a means of promoting regeneration may also need to be integrated in tribal life (Fernandez, 1997, p. 35). On the economic side, CORD staff cultivated a new habit of storing food grains for the future, thereby freeing tribals from the clutches of moneylenders (Cheria et al, 1997, p. 56). Additionally, in the context of the possible breakdown of community life and the adoption of modern values, traditional management systems may require the addition of new sanctions to discourage overexploitation, as well as a renegotiation of leadership and communal decision making. There are examples throughout Asia of tribal leaders selling off the rights to forest resources for individual gain (Colchester, 1994, p. 87).

Traditional tribal values such as egalitarian society, balanced use of resources, and women's status, provide solid foundations for further development. Tribal culture was conservation oriented as natural resources were for subsistence as opposed to industry, therefore a balance between human needs and the environment could be ensured. This conservation orientation was further enhanced by the high status of women. As the woman was responsible for supplying food and fodder for the community, she particularly would have a vested interest in the preservation of these

resources (Fernandez, 1996, p.65). The most famous environmental movement in India, Chipko, was founded and is controlled by women. While this movement has been very successful in highlighting environmental issues in the Himalaya and in promoting forest protection, the state government of Uttar Pradesh has failed to respond with policies to promote community resource management (Poffenberger et. al, 1996, p. 40).

The revitalisation of traditional management systems also demands a restoration of the indigenous knowledge on which they are based. In some cases external interference and the diffusion of Western individualistic and consumerist values, may have replaced traditional values and knowledge. The introduction of cash crops into a region has been disruptive to traditional systems, and has usually resulted in the marginalisation of women. Forced integration into the market economy, and the cultural changes this entails, may convince people that their knowledge is of little value. Additionally, as mentioned, removal from the forest environment quickly results in an erosion of ecological knowledge among tribals. This process must be arrested if tribals are to be involved in the management of their forest environments.

The concept of Joint Forest Management was later extended to the management of protected areas, due to the extensive conflicts that have arisen with local inhabitants. There are approximately 500 national parks in India covering about 4.3% of its territory. A survey of these areas revealed that 69% had a population of upwards of 3 million indigenous people living inside of them. (Suri, 1996, p. 248). The Wildlife Protection Act of 1972 gave control over Protected Areas exclusively to the chief warden, providing no scope for joint management (Kothari, 1996, p.29).

Under this still current legislation, many communities have been denied access to biomass resources in their locales, or have been threatened with eviction. As mentioned, the removal of people from park areas and the denial of access has contributed to the degradation of the environment outside of the strictly protected area.

It has also disrupted community management systems, as the access to resources is tenuous and there is competition for scarce resources, the people tend to overexploit the environment and abandon traditional sustainable practices. Additionally, the increase in animal populations in protected areas has led to an increase in people-wildlife conflicts. As previously mentioned, large elephant populations, coupled with little edible undergrowth in teak forests, encourages the foraging and trampling of crops in tribal villages.

In recognition of the problematic nature of fence and protect park policies, Joint Protected Area Management has been proposed as a possible solution. It is defined as:

JPAM is the management of protected areas and their surrounds, with the objective of conserving natural ecosystems and their wildlife, as well as ensuring the livelihood security of local traditional communities through legal and institutional mechanisms which ensure a partnership between these communities and government agencies (Kothari, 1996, p.27).

Thus JPAM involves the resumption of traditional rights over land and forest areas in and around parks and sanctuaries, with communities involved in the protection of fauna and wildlife and sharing in the benefits of their conservation efforts. Seshari and Gadgil (1994) refer to a system of "positive incentives" which has to be developed in order that communities benefit from the process of preserving biodiversity. These include: increased access to public lands, enhanced production of biomass, and a fair share in the profits gained from commercial exploitation (cited in Varghese and Thekaekara, 1996, p. 241).

The principles of JPAM may be more difficult to institute, as it is geared exclusively towards biodiversity conservation, as opposed to JFM, which has expectations of limited human exploitation (Kothari, 1996, p.44). The probability of human impact in park areas thus becomes more contentious. Sanctuaries allow some human activity, provided that it is not in conflict with wildlife conservation. However national parks such as Nagarhole are now designated as total protection areas with a

complete ban on human settlement and activity, except for limited tourism by urbanites (Kothari, 1996, p.22). Complete eviction has not always taken place, however, severe curtailment of access to natural resources has had almost as severe an impact on livelihoods as actual physical displacement. NGOs working with adivasis see such denial of access, as also promoted in the joint World Bank-Global Environmental Facility Ecodevelopment plan, as a means for developed countries to colonise the nation's biodiversity (Nagarhole BJHS, 1997, p.5).

Contradictory policies between the Forest Department and Tribal Development Agencies in sanctuaries also lead to confusion. For instance, loans have been provided to tribals to purchase grazing animals, while the FD is making a concerted effort to limit such animals in protected areas (Karnik, 1996, p. 178). Many studies have indicated that limited grazing, controlled fire and other human impacts may actually have beneficial impacts on specific ecosystems (Saberwal, 1998, p. 14). However, the relevance of such research is not recognised by park managers, and there is a reluctance to adopt participatory conservation measures in some areas. This reluctance is likely due to an unwillingness to relinquish control, as participatory management involves the delegation of authority to local communities, to manage their resources in accordance with their own values and knowledge.

In addition to the retention of such tribal knowledge and values, Colchester (1994) stresses that for community based resource management to adhere to the concept of sustainability, basic needs must be met and resources should be under local control. Such control entails a decisive voice in resource planning and self-representation through local institutions. Legal recognition of community property is requisite for successful management of resources by tribal user groups. As such, adivasis are agitating for "self-rule" in their territories. Self-rule does not necessarily entail secession, but rather involves: "recognising the right of minorities and indigenous

communities to exercise meaningful internal self- determination and control over their affairs in a manner that is not inconsistent with state sovereignty" (Rehman, 1998, p.112). Nonetheless, state governments seem reluctant to apply the relevant legislation to grant self rule in their areas.

Such legislation has been recently introduced and is based on the recommendations that the Bhuria Committee submitted on Jan 17, 1995. This is Bill no. LVI, labelled The Provision of the Panchayats (Extension to Scheduled Areas Bill) which was adopted on Dec. 13, 1996 after much agitation on the part of tribals (Solidarity Doc., 1997, p. 15). This legislation recognises the community as the basic unit of power, assuming the status of "Gram Sabha," (a politically legitimate unit with authority at the village level), and that formal systems in tribal areas can only be built on the traditions and customs of the adivasis. As such it has been hailed for recognising the participatory democracy traditionally practised in tribal areas, and provides the framework for tribal self-rule in areas already administered under the sixth schedule. As the tribal areas in the South are unscheduled, the first step is to have them included as scheduled areas. This is one of the main foci of the tribal movements at this time. The National Front for Tribal Self-Rule has now demanded the scheduling of all tribal areas and the declaration of adivasi haadis as village republics (Solidarity, 1997, p. 15). In response, the tribals of Nagarhole have taken it upon themselves to declare self-rule within their villages, and will allow entry to government officials only with the permission of the Headman (Nagarhole BJHS, 1997, p. 21).

Movements for self-rule and also for political secession, as in Jharkhand, have been motivated by the harshness of forest regulations, as well as the continued degradation of the tribals natural resource base by industrial development. Self-rule can provide a framework within which tribals can protect and develop their local resources

for their own benefit. This would mitigate the problems identified by those interviewed, such as a lack of control over forest resources, threats of eviction, insecure tenure, and the resulting cultural disintegration. Such political authority at the local level, is particularly important in the context of a world order in which developing countries may be compelled to open up their economies to foreign investment even on the most unfavourable terms, rendering national governments incapable of protecting community resource rights (Burman, 1998, p. 49). Village level republics with adequate legal recognition are in a much better position to resist these globalizing forces, while at the same time providing a legitimate model of decentralised participatory planning for sustainable development.

CHAPTER SEVEN

CONCLUSION:

IMPLICATIONS FOR DEVELOPMENT

The growing environmental crisis and the widening gap between wealth and poverty on a global scale must necessarily engender a questioning of our present development model, based on the principles of modernisation theory and neo-classical economics. This model, in which global capital is precedent, emerged from within the dominant Western scientific worldview. In contrast, adivasi culture, as it is based on animism and a respect for nature, not only embodies an element of diversity that has resisted this homogenising impact of globalisation, but also provides a model for sustainable living. In this context, the preservation of tribal culture and traditions, as they are based on the principles of ecological sustainability, becomes imperative. Such principles have now been incorporated in ecodevelopment theories, or community resource management plans, by modern development theorists who recognise their value in our era.

This case study has revealed a variety of beliefs and practices which served to promote the sustainability of the adivasi's forest environment. Concepts such as intergenerational equity, the idea that present generations are holding the land in trust for the future inhabitants, is strong in adivasi society. Rituals that involve sharing food with the land embody a connection with the environment that is alien in Western culture. Resource collection was for subsistence, and methods were practised which ensured that non-timber forest produce would regenerate, ensuring an adequate supply for years to come. Gods and ancestors are involved in every aspect of day to day existence, including honey collection, healing of illness and hunting. A system of sacred groves, as well as the designation of individual trees as sacred, is also decided upon through the

involvement of gods and ancestors. This sacralisation of the environment is an important aspect of its preservation.

As elsewhere in the world, in South India, such lifestyles are under threat by modernising influences and our prevalent development model, which undervalues subsistence lifestyles, as well as the knowledge systems on which they are based. It became apparent that, as more and more of their resources are taken out of their control (to meet the needs of the industrial economy and urban tourists), adivasi culture continues to crumble in the resulting context of scarcity, displacement and cultural domination. Previously equitable systems of resource allocation are disrupted through integration into the monetary economy. A self-sufficient economy is thus replaced by a culture of dependence on often corrupt government programs. Alcoholism and the diffusion of Hindu culture creates a new situation of violence and discrimination against women. Insecurity and the threat of displacement has led to despondence and an abandonment of traditional practices.

While my research identified some of these phenomena, it was limited, as is most research, by a shortage of time, as well as the limitations imposed by the need for translation. Information about the experiences of women was often hampered by the presence of men. Often male family members appeared just as I was about to launch into this area of discussion. As the NGOs, CORD in particular, were well connected with and respected by the tribal people, I gained acceptance by being affiliated with them. However, a lengthier involvement would have increased my presence in the tribal villages, and no doubt led to a greater depth of information. Nonetheless, the research was important for me personally, in that it confirmed the validity of the issues and conflicts experienced by forest dwelling tribals, as identified in the literature.

In response to such conflicts, tribal movements affiliated with NGOs, such as BKS-CORD and AMS-ACCORD in the Nilgiris, as well as Chipko and the Jharkhand

movements in Northern India, are all involved in resisting the definitions of development which have been thrust on them by the modernising nation state. Environmental activists such as Methka Prarka (who I witnessed speaking in Kerala against the damming of the Mananthavady River), are also gaining widespread popularity in their resistance to large hydro projects.

These ecological movements are aiming to recreate the connection to the environment held by tribals, and other ecosystem people, which has been severed by modernising development. As such, they are proposing an alternate development model for India. The Indian subcontinent is made up of a huge variety of ecosystems, from the Himalayas, to the central plains and deserts, to the coastal areas and rainforests. These eco-regions have each nurtured the development of a wide variety of cultures. Development which respects "such immense cultural diversity, in close relation to ecological diversity, within a framework of democracy" (Kothari and Parajuli, 1993, p.226), is what is being promoted by ecology movements in India today.

Such an ecodevelopment model demands the granting of control of resources to the communities that depend on them for their survival. This requires an overturning of the long history of centralised state control over forests, and engendering a new relationship between the people and the Forest Department. While Joint Forest Management is a positive step in this direction, as the ownership of the forest still remains with the state, (whose national development priorities remain essentially unchanged), its potential to promote authentic community forest management is limited.

In order for development policy to truly accord with an ecodevelopment framework, this hegemony of Western scientific knowledge, linked as it is with neo-classical economics, will have to be overturned. Development based on this modernisation model has been destructive to the environment and, as a corollary: "become an effective legitimiser for the homogenisation of the world and the erosion of

its cultural richness" (Shiva, p. 60, 1993). Deconstructing this hegemony will require a transition to forms of research and development which value indigenous forms of knowledge and the realities which they represent. Inquiry within Participatory Action Research, as promoted by the NGO community in the Nilgiri region, works to promote the recognition of such forms of knowledge.

The growing interest in PAR and indigenous knowledge research is therefore a very positive step towards such a paradigmatic shift. The IDRC in Ottawa has an entire department devoted to such studies and the literature on the subject is burgeoning. More such research is needed in order to appreciate the important contribution which indigenous knowledge can make to environmental protection. There has been a recent research emphasis on understanding the sustainable resource use practices of indigenous peoples and how these can be integrated with scientific resource management techniques (Johnson, 1992, p. 5). Participatory Action Research has become the accepted mode of studying indigenous knowledge. In this form of inquiry, the community retains control over the process and the results, as well as being involved directly in conducting the research (Johnson, 1992, p.6)

In contrast to this "insider" approach, traditional scientific research tends to be removed from the local contexts in which traditional knowledge is embedded, and to objectify indigenous people who are usually considered obstacles or "externalities" of proposed development projects. This Western developmentalist worldview engenders a separation of people and nature, reconstructing the relationship between them in an often destructive manner. This has led to environmental degradation as well as cultural erosion.

Our present environmental and social crises are linked to our allegiance to these dominant paradigms of thought, and our failure to solve them is due to our inability to grasp alternative visions. While rhetoric regarding "sustainable development" is

prevalent among business and industry, a true ecodevelopment approach demands that a commitment to overcoming poverty, environmental degradation and the valuing of diverse cultures must inform all aspects of political and economic activity. Furthermore, this development ethic cannot be supported in policy unless there is a movement away from a modernising vision, equating success with the consumption of more and more. As is evident from my research among the adivasis of South India, development based on such ideals results in increased inequities, and the marginalisation of indigenous people who do not share this vision. We must, as a society, move towards a recognition and validation of alternative forms of thought which embody a connectedness with nature:

Indian Science, often understood through the tree, is holistic. Through spiritual processes, it synthesizes or gathers information from the mental, physical, social and cultural/historical realms. Like a tree, the roots of Native science go deep into the history, body and blood of the land (Chambers quoted in Pynch, 1988, p.6).



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APPENDIX 1
QUESTIONNAIRE

GENERAL ISSUES AND FOREST COLLECTION PRACTICES

- What are the most urgent needs or issues facing your community right now?
- How are these being met or dealt with?
- What is the primary means of livelihood- wage employment, agriculture or forest collection?
- What rights or control does the community have over the forest? Is it reserved, protected or national park?
- What activities are restricted by the Forest Department? What happens if these restrictions are broken?
- Do you experience any harassment from the Forest Department?
- Is firewood cut for sale or just for personal use? Are there any communal sanctions on cutting practices?
- Is only dead wood cut?
- What are the major products collected from the forest? What are their uses? Are they for the market or personal use?
- How many plant species can the average individual recognise?
- How is a future harvest of specific plants ensured during the collection process? Are there any beliefs or taboos dictating when and how much certain products can be harvested? What happens if these rules are not followed? Are there community sanctions?
- Is honey still collected using traditional rituals and bee songs? What is their purpose? How is a future supply of honey ensured?
- Has the quantity and variety of forest products changed in recent years? How has this affected your livelihood?
- Is hunting practised or is it restricted by the Forest Department? If it is practised, what rituals or taboos surround this practice?
- Have the major components of the diet changed in recent years?

AGRICULTURE

- For how many generations has your community lived on this land?
- How is the future fertility of the soil ensured? Is settled cultivation or shifting cultivation practiced?
- Are there any rituals performed prior to clearing planting or harvesting? Can you describe them?
- What crops are grown? Is there intercropping?
- Is land privately owned or communal. If it is privately owned or divided, does everyone have a similar plot size?
- Do men and women play an equal role in agriculture?
- Do women have control over some of the income from the harvest? What about control over income from employment?

RELIGIOUS PRACTICES AND SACRED GROVES

- Do you have sacred groves near your community?
- Are any religious rituals conducted within them?
- Have sacred groves been destroyed by outsiders at any time?
- Are there restrictions on harvesting certain trees which are considered sacred? What is the consequence if such trees are cut? What is the belief surrounding this?
- What deities are worshipped and what form does the worship take?
- Are all trees/plants/animals and rocks considered sacred to some degree?
- Have Hindu practices begun to replace these traditional practices in your community?
- If so, what impact has this had?
- Is there a community spiritual leader? Has his/her role changed in recent years?
- What rituals surround the life cycle, birth-death etc?

HEALTH

- Are many plants harvested for medicinal purposes?
- Has the amount and variety been reduced in recent years?

- How has this affected the health in your community?
- Is there a medicine man or traditional health practitioner?
- Is there access to modern medicine? Under what circumstances are the two systems used?

EDUCATION

- How is knowledge regarding land, forest and cultural practices passed on to children?
- Is some of this knowledge being lost?
- Do most of the children in the community attend school?
- Is the school primarily for adivasi children?
- Is the teacher an adivasi?
- Are cultural traditions taught in school?
- Are the lessons taught in Kannada/Malayalam or the tribal language?
- Are children motivated to attend? Do girls attend as often as boys and reach the same level?

SUMMARY

- What changes have you noticed in your community over the last 10-20 years?
- Are these changes positive or negative overall and what impact have they had?
- What would be of most benefit to your community:
 - More land
 - More wage opportunities
 - More unrestricted access to forest collection