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## BRITISH AID FOR INDIAN FORESTRY

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Britain is to provide £15 million towards building up forests in Karnataka in south India. Mr Timothy Raison MP, Minister for Overseas Development, has agreed to make this contribution from funds within the British aid programme set aside for local costs in India after visiting the project site during his recent visit to India. While there he also signed an agreement to provide £10 million towards a second forestry scheme in Karnataka, associated with a paper mill.

The £15 million will help the Government of Karnataka plant 27,000 hectares of trees and 2,000 hectares of bamboo on public land, and to develop nurseries, distribute planting materials and give advice with a view to promoting over 120,000 hectares of new forests on private land. The cost of extra foresters, equipment, housing, training, advice and research will also be covered.

The aim is to step up supplies of fuelwood in places where there is not much forest for the size of the population. The project will also provide more timber, fodder and bamboo for cottage industries.

The scheme will be designed with the needs of the poor in mind. It will be labour intensive; part of the forest products will be available to the poor at a low price; some bamboo will be set aside for the traditional industries of tribal people; and a limited number of seedlings will be given free to small farmers to plant for their own fuel.

The costs are to be covered mainly from the British grant and from an interest-free loan by the International Development Association. The Government of India and the Government of Karnataka will also contribute.

The second grant, of £10 million, will help Mysore Paper Mills grow additional timber for pulping by building up local captive plantations. This will guarantee a regular supply of timber and relieve pressure on existing forests, while providing employment and free fuel and fodder for poor people locally. The British contribution will cover additional local costs as well as advice, training and help with research on improved varieties suited to conditions in Karnataka.

/Note for editors

## THE WESTERN GHATS FORESTRY PROJECT

The Western Ghats Forestry Project (WGFP), Karnataka, was initiated by a request from the Government of Karnataka to the Overseas Development Administration (ODA) of the United Kingdom to fund a forestry project in the Western Ghats area.

Prior to the British entry into India, the forests were considered the common property of the neighbouring villagers and were well conserved by them since they were almost totally dependent on them to supply agricultural inputs and the raw materials on which their village industries thrived.

Then as the British attempted to extract more wealth from India, they claimed sovereignty over the forests and enclosed them by their laws. This enclosure had a disastrous effect on local villagers. The Englishman, C C Wilson, Chief Conservator of Forests, described its consequences: "The dwellers in the countless villages all over the country had, from time immemorial, obtained a great part of their daily needs from the jungles. First and foremost was the question of fuel with which to cook their food. Without that they could not live. Then there were small timbers for building without which they would have no shelter, ploughs without which they could not cultivate the ground, grazing without which their cattle would die, green-leaf manure for their fields, tanning bark for their leather, bamboos for a dozen different purposes. And these were vital to their well being... And then an authority came into being which denied them what they had always looked upon as their rights. They fought most bitterly and indeed understandably, against the new tyranny".

The enclosure of the forests by the British reduced their agricultural productivity, damaged their village industries, denied them access to wild foods and fodder, harmed their health and had a multitude of other impoverishing effects.

The Forest Department saw its role as the maximisation of revenue for the State. Income was dependent mainly on hardwood timbers required by the westernized industrial and urban society in large quantities. It is mainly this that has resulted in the degradation and destruction of the forests.

The people who had lived on the numerous forest products, extracted sustainably for centuries, were now forced to sell headloads of fuelwood, or smuggle out felled timber, and clear further pieces of forested land for cultivation, all solely for bare survival. These were considered illegal activities, whereas what was truly illegal was the enclosure by the colonial occupying government.

The enclosure of the forests also damaged them ecologically. "Commercially valuable" species, such as teak and rosewood, were selectively felled, and where reforestation was undertaken it was only with a very limited number of species, constituting a major loss in biodiversity and sustainability of the ecosystems.

This wholly British-devised system is being promoted by the ODA as the "traditional" forest management system, when it should be

the pre-British system that is really traditional.

#### THE DEGRADATION OF THE FORESTS

The ODA Final Project Proposal (1992) (FPP) states four reasons for the present degraded state of the forests.

Logging is the first, the FPP claiming that local people "are responsible for much of the biotic pressure on the forest". But the figures given of the income of the Karnataka Forest Department (KFD) shows that it is itself logging on a large scale.

People are also blamed for taking away headloads of fuelwood and for the theft of young trees for small-size timber. Again this is a result of the earlier processes that deprived them of their rights to forest produce, forcing them to supplement their income by stealing from what were by right their own forests.

The ODA admits that the local people are still "highly dependent" on the forests for their livelihoods. Yet the KFD now auctions all these products, getting a considerable income which goes to the State, which then doles out a minute quantity for "village development". The entire system is a local replica of earlier colonial extraction and its present supposed compensation by international aid. The ODA spends part of what the British colonial government earlier extracted from India and what it extracts today through inequitable terms of trade, on schemes like the WGFP.

Such institutionalisation of what the local people were doing has been an effective means of transferring wealth from the people to the contractors, the KFD officials, the KFD and the state.

If the well-being of the people is the concern of the State, then the simplest solution would be to restore to the people what is rightfully theirs, allowing them to collect, use and trade all "minor" forest products freely. It is only in this manner that the societal aims of the ODA can be fulfilled: "To assure the sustainability of the living standards of those people whose livelihoods currently derive, in whole or in part, from the forest". Even here, though, sustaining the abysmally low living standards is not sufficient - they need to be raised appreciably.

Moreover, the dependency of farmer and forest was mutual. The forest was closely integrated into the farming and village industry system, which required that the people protect it in order to survive; this they have done for centuries. Today, though, most of the village industries have been replaced by large enterprises, for which "forest resources" such as bamboo have been provided at extremely low rates, with no regeneration liabilities.

Still another cause listed by the FPP states: "Livestock grazing throughout the forest, has also done much damage."

Grazing was always an integral part of pre-British traditional forest management, which gave the people sufficient fodder while doing little damage to the forest. It was the enclosures by the

British that led to a reduction of available pastures, with consequent overgrazing in those small areas to which the villagers still had access. A major process of effective enclosure was the gradual conversion of grazing commons and natural forests into plantation monocultures of teak, later eucalyptus and now *Acacia auriculiformis*, none of which permit good fodder grasses to thrive under them. Much of this was accomplished through earlier "social forestry" projects.

Moreover, the ODA consultative committee, in its first report, admitted that "Certainly it would be difficult to conclude from our short visit that they (the pastoralists) are the major problem, in terms of livestock, facing the Forest Department".

The fourth cause listed: "Fire is a major problem ..."

Again, livestock owners are blamed for most of the fires since they regularly burn off dry grass before the monsoon. Such burning is also a pre-British traditional forest management practice. Not only does it produce a good flush of new grass, but it also serves to kill cattle pests such as ticks. The fires also help to recycle nutrients rapidly.

Where burning is not prohibited, herders carefully control it so as not to allow the fire to spread, with wind speed and direction being taken into account. Since it is illegal now, the grass is set on fire and the person leaves the area because he is afraid of being caught; the fire burns uncontrolled.

#### THE WESTERN GHATS FORESTRY PROJECT

The objectives of the Project are stated as being the following:

Ecology: To maintain the ecological balance and the environmental stability of the Western Ghats, to preserve their unique flora and fauna and to increase understanding of them.

Environment: To rehabilitate and protect the major environmental resources represented by the Western Ghats forests.

Society: To assure the sustainability of the living standards of those people whose livelihoods currently derive, in whole or in part, from the forest,

Economy: To assure the sustained yield of all categories of produce proper to the natural forest, so as to secure sound economic welfare for future generations.

The Brief Project Description adds, almost as an afterthought, that it also aims to increase the biodiversity of the region.

The benefits arising from the project are claimed to be: "the planting of new forest stock, the protection and natural regeneration of existing stock, a more economic choice of species/land use, more efficient silvicultural practices including improved species and seedling selection."

The objective of natural regeneration is contradicted by the other stated "benefits". Moreover, the project benefits listed are only those that accrue to the KFD, no benefit to the local people being mentioned - because there is effectively none.

The FPP's accent on the "most valuable species", taken as

economically valuable, shows that the interest in biodiversity is nominal, since all plant species, and fauna too, should be considered equally ecologically valuable. Conserving or increasing biodiversity and commercialisation by clear felling are contradictory aims. The selective felling of "most valuable species" has resulted in the present ecologically unbalanced forests. But even here it is not the ecological unbalance that is of importance to the KFD and ODA, but the economic unbalance, caused by the lack of species to exploit commercially.

Since the start of the project in 1993, there is absolutely no evidence to show that any attempt whatsoever has been made or is proposed to be made to improve the ecological situation and increase biodiversity. In the plantations carried out in the majority of villages surveyed, *Acacia auriculiformis* has been planted even to the extent of 90%.

This acacia species is a recently introduced Australian species and cannot by any stretch of the imagination be considered as contributing to restoring or maintaining the Western Ghats' unique flora. This species in addition, prevents indigenous species of plants from coming up naturally. Moreover the ODA plantations, even if mixed, will be cut down in ten years, and cannot "assist in the long term conservation of biodiversity of the Western Ghats".

According to the FPP, gaps in the forest will be planted with "valuable timber species", "with an aim of restoring the 'natural' mix of the forest."

Several of these gaps have been earlier created when the KFD clear felled existing forest or their own even earlier plantations. In all these gaps there was considerable natural regeneration. It is preposterous to state that planting a few specific species can restore the natural mix of a forest which normally contains several hundred species.

The FPP states the exact number of trees per hectare to be replanted. Specifications of fuelwood, fodder, green manure and fruit/NWFP (Non-timber Forest Products) "models" are given. The provision of such specific models contradicts all apparent concerns with biodiversity and natural forests. The very suggestion of models reveals that the ODA's experts do not have a clue about the true multipurpose nature of nearly all species of Indian forest trees, shrubs and herbs as well. Open spaces are a part of all natural forests; closing them up reduces biodiversity.

"Fuelwood model: with 50% of the area planted to fuelwood species which will be removed once the canopy cover has been established." This implies that there is no long-term aim to provide the local people with fuelwood.

"Silvicultural issues. Little is known about the medium-to-long-term behaviour of mixed plantations." If "little is known" about mixed plantations it is because of the complex interactions between plant species and between plants and fauna. Fully understanding the behaviour of natural forests is next to impossible.

Biodiversity can only be conserved when the deforested areas are left to regenerate by themselves. Such a goal cannot be achieved by a "planning and design process", which is a process of selectively interfering with the forests. Neither can this be called natural regeneration. No plantation, however mixed, can ever foster such aims. Villagers often said that if the forest is left to itself there will be natural regrowth showing that interference is unnecessary.

A curious part of the project is the division of the whole forest area into zones: Ecologically important areas; Main forest with good potential; Main forests with pockets of settlements; Edge of forest reserve, near settlements; and Outside forest, near settlements. This again negates the statement that biodiversity is being promoted. It is not stated anywhere that the old growth forests will not be felled. In fact, the term "good potential" refers to economic potential only. These zones are being "protected" only so that they may be more lucratively felled in the future. But all zones need to be equally protected - mainly from the KFD's voracious, termite-like appetite for timber. The conservation of biodiversity and the KFD's requirement to supply the needs of a high consumption industrial society are incompatible.

In the section on benefits, it is stated that "The gap planting models, representing long cycle species, were very sensitive to the discount rate, and showed low returns to new planting alone. However, when the return to the whole area, including the incremental productivity of existing stock which will be thinned at the time of gap planting is included the returns are considerably higher". This is an admission that the ODA plantations by themselves are uneconomical from the KFD's point of view and that it is necessary to include the exploitation of the rest of the old forest for it to be economical.

Sustainability for the ODA merely means ensuring "future revenue flows" from the forests, not ensuring that the forests remain.

There is, of course, another possibility. Is the ODA project being financed and its biodiversity being conserved only so that the UK pharmaceutical firms have special access to the species of India?

## STRATEGIES

The ODA states that the project will achieve its objectives by a strategy based on four processes.

- 1, "The project aims to enhance and improve the management capability of KFD, and in particular enable it to respond to the conflicting demands from different users for access to the products and services of the forest areas."

The KFD and previous forest departments have been chiefly responsible for the present situation, and they have shown no signs of a major attitudinal shift. Improving the KFD's management capability, therefore, can only result in increasing its proficiency in the efficient destruction of the forests. Further, the ODA's stress on the "enhanced management capability" implies increased interventions.

The ODA requires that a huge new bureaucracy, with extensive infrastructural facilities, be established. Once the ODA aid is withdrawn, however, these will still need to be funded by the State, which will almost certainly obtain the revenue from greatly expanded forest exploitation. The infrastructure includes the construction of new roads into the forest, thus making it more accessible to official exploitation as well as smuggling.

2, "Ensuring poor people, women, tribals, and other disadvantaged groups who are substantially dependent on the forests are not worse, and preferably better off."

So far all that the KFD has accomplished is to make them much worse off, particularly the already marginalised, those with little or no land. The ODA plantations have been mainly on village commons which provided pasture, fuel, manures, medicinal plants and other products to fill basic needs. The enclosing of these areas by the KFD has forced people to take their cattle much further for grazing and to walk longer distances for other products. The reduction in availability of cattle fodder and green manures results in lower agricultural productivity. The impoverished farmers are then forced to obtain more from the forest for bare survival, thus providing positive feedback. The system is designed for forest destruction.

Women are most affected by the decrease in availability of fuel with which to cook. The distance to which they need to travel to collect fuel daily has been increased in many project-affected villages. A reduction in the availability of fuel could result in insufficiently cooked food, with a reduction in its nutritive value, and hence effective damage to health.

Families have also been evicted from cultivated encroached lands, depriving them of their livelihood, with no compensation whatever.

The tribals affected in this area are the Gowlis, originally pastoralists. They had been earlier forced to settle in villages, having to reduce their herds since there was insufficient grazing. Their situation has also worsened after the commencement of the ODA project and may result in effective genocide, within the UN definition of the word.

The ODA plantation areas varied from 20 acres to 130 acres, with no relation to the village population or their actual needs.

The people want their daily needs satisfied now, whereas they have been deprived of them now with the promise of an unspecified income after ten years.

3, "Minimising further loss of forest cover and resources, and the service they provide."

From the actions of the KFD, the accent seems to be on the resources provided, not the loss of forest cover, since plantation areas are often cleared before planting monocultures. Moreover, it is also clear that the project envisages minimising further loss of forest cover only so that the KFD can do so more

lucratively at a later stage.

4. "Increasing understanding of the Western Ghats eco-system."

An extremely complex ecosystem, such as a rain forest can, perhaps, never be understood even to the minimal extent where it can be predicted that a particular intervention will not to be harmful. Preserving the system, involves reducing intervention and leaving the system to evolve in its own time and in its own manner. A major point which is not understood is that people and cattle form an integral part of the forest ecosystem.

JOINT FOREST PLANNING AND MANAGEMENT (JFPM).

Considerable emphasis is being given to the JFPM aspect of the project.

Since the whole project has been planned right down to "Planting Models" and "Micro Plans", the participation of the people is minimal, restricted to guarding the plantations.

In some Village Committee meetings, when asked for a reduction in the number of *Acacia auriculiformis* plants, the KFD officials answered that the real aim of the plantations was to increase production of fuelwood only and they were ordered to do so. When questioned about the loss of grazing, the officials said that they were helpless and had to carry out the plan.

"Micro-plans will be prepared in consultation with KFD. These associations will be well-placed to assess their needs, but may lack knowledge on the sustainable level of exploitation of their local forest resources." Can there be sustainable exploitation of forest resources?

"The fourth stage is the drawing up and registration of Management Contracts or Forest Agreements between KFD and user/community groups. This will legally establish villagers with a stake in the assets. It also avoids any weakening of KFD's ownership of forest land."

This latter sentence is the crux of the programme. These contracts will giving people the right to a little of the forest produce, will further deny people's rights over their own common land. It is evident that the ODA has not yet realised the error of the ways of its British ancestors which initiated the problems - or perhaps, its intentions are the same.

TRAINING

A number of Indian forest personnel "will undergo training in the UK on existing short courses" for, among other things, "social and economic dimensions of 'local needs' forestry".

What one wonders do UK "experts" know about the social and economic dimensions of local needs forestry, when all British experience has been in exploiting the local people and the national economy? Unless, of course, the unsaid agenda of the ODA is to continue the processes of exploitation initiated in colonial times which were, only temporarily, rudely interrupted

by independence.

#### THE REAL AGENDA?

Among the non-forestry benefits listed is "CO2 absorption", which is valued at Rs 3000 per hectare per annum. It could be that its real value accrues to the UK rather than to India. With the emphasis on plantation of exotic species in forests which already have a high cover, it appears that it could be the British Government's desire to claim the whole of the Karnataka forest area as compensatory carbon dioxide sequestration for continuing emissions in the UK. The selection of the most forested district in the State for initiating the project appears to confirm this. While there is no official agreement yet on compensatory forest plantation in the Climate Change Convention, testing is allowed.

#### CONCLUSION

The ODA project in Karnataka, and other similar projects, infringe on human rights to food, health, and employment and hence on their rights to life itself.

There is a clear conflict between the aims of maximising the income of the KFD, increasing the welfare of the people who use the forest for their basic needs, as well as conserving the forests.

If the ODA and the KFD are sincere in their desire to implement the stated aims, then their plans are inappropriate, with their scientific and sociological basis questionable. On the other hand, if "the economic welfare" refers to distant industrial and political elites not to the local people, then the project is eminently suited as it provides for the efficient means of transfer of wealth from villages to urban industrial centres.

#### ALTERNATIVE SOLUTIONS

Villagers had been sustainably managing their surrounding forests for centuries, obtaining much of their essential needs from them. Or rather, the local people according to pre-British traditional management practices restricted their requirements to what could be sustainably obtained from natural forests. Some of these traditional forest management systems still exist and it is these that need to be studied, protected and multiplied.

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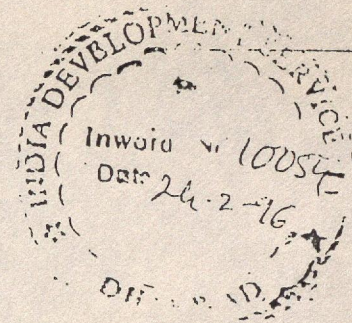
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To, SSIH. PCO' BWD.

## WESTERN GHATS FORESTRY PROJECT

### A REVIEW OF THE JFFM PROCESS

BY : NGO NETWORK ON JFFM, UTTARA KANNADA.  
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Submitted to the : The Chief Conservator of Forests,  
Project Director, Western Ghats Project,  
Karnataka Forest Department,  
Vana Vikas,  
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#### 1.0 BACKGROUND

This paper is an outcome of the working experience of the local NGOs who are keenly interested and working on JFFM in Kanara Circle. The Uttara Kannada NGOs' network is a grouping of more than 10 NGOs in the district who have been working with forest-dwellers for a number of years and are active in more than 20 VFC villages. They have been conducting JFFM awareness and education camps and intervening meaningfully in the JFFM process to ensure that women and poorer and backward communities benefit from the JFFM process.

During the JFFM workshop in Sirsi (22-24 Aug. 1994), KFD officials, NGOs and ODA consultants gave some thought to the changes that are necessary in the project process, to ensure better implementation of the project. Among other issues, it was felt to be necessary to amend the 25% canopy cover restriction, give a greater voice to women and extend the period covered by the micro-plan from 5 to 10 years. We understand that this has been discussed at the highest levels in the Government. Unfortunately, there has been little reflection of this on the field process.

#### 2.0 ISSUES OF CONCERN :

The objectives of this review are to focus on the following issues of concern in the project.

- 1) People's participation in zonation.
- 2) M.O.U. - Contents and process of signing.
- 3) JFFM process at the village level.
- 4) Policy on Non-Timber Forest Produce
- 5) Gender issues in the project.
- 6) Role of NGOs in the project.
- 7) Installation of Astra Chullas.

## 2.1 PEOPLE'S PARTICIPATION IN ZONATION

Currently, people are being involved in planning only for lands which have been designated as Zone IV areas. Earlier, zonation had been understood as a dynamic and flexible process with considerable scope for people's participation. But zonation has taken place unilaterally with no involvement of local communities. Communities have been sidelined in non-Zone IV areas.

SUGGESTION : Ways and means need to be found to involve people in the delineation, planning and possibly management of all zones.

## 2.2 MOU : PROCESS OF SIGNING AND CONTENTS.

VFCs and NGOs were not informed well in advance about signing of MOUs. The NGOs have gone through the MOUs signed so far and feel that the contents of MOU are very vague and it is unclear whether the micro-plan is part of the MOU or not and what amendments can be made later. Signing the G.O. does not mean signing of M.O.U.

SUGGESTION : A workshop to be conducted in which NGOs and VFCs presidents to be involved by KFD to finalise the contents of MOU. MOUs already signed are also needed to be rectified after this workshop. There was no co-ordination between NGOs and KFD staff at all at the planning of holding VFC meetings, conducting micro-management plan and signing of M.O.U.s. Whenever the NGO approached KFD, no village visit schedules were available from KFD staff. Most of the time KFD staff arrival to the village was learnt of by villagers at the last moment.

## 2.3 JFFM PROCESS AT VILLAGE LEVEL

Meetings were conducted regularly till the VFCs were formed, but thereafter many VFCs have not had a single meeting for almost a year. Micro-plans remain to be done in many VFCs. No measures have been taken in some micro-plans for meeting the fodder needs. Also, prior to plantation, the existing cover has been burnt down, causing much damage. Training to villagers in JFFM is essential. Government officials from other departments also need to be sensitised to the principles of JFFM.

## 2.4 POLICY ON-NISE

The NGO network appreciates the efforts of JFFM and KFD in organising ARANYAKALA MELA, an exhibition of products made of bamboo, cane and other forest grasses/palms in Bangalore from 5th to 8th January, 1995. The exhibition has created an awareness among the user groups of the demand and potential markets that

bamboo and cane products have.

The initiative taken by KFD in allotting seegekai tender to the Siddhis of Yellapur forest sub-division as first step of learning process to make a policy guideline for providing NTFPs to the forest dwellers-VFCs. The Siddi Development Project, a local NGO has put a lot of its effort in organising the Siddhis and educating them to form a co-operative society of their own for this purpose.

SUGGESTION : The KFD has to take care to grow oxytenenthera monostigma (Shave Bamboo) in its Bamboo plantation model in this project and will avoid the present acute shortage of the same. Also, training programmes for craftspersons could be organised in co-operation with Oxfam and NGOs and assistance could be provided in production/marketing.

It is also necessary to ensure that first right on NTFP is that of villagers rather than contractors. Appropriate institutions for this could be VFCs, co-operatives etc.

### 2.5 GENDER ISSUES IN THE PROJECT :

The efforts of KFD and MYRADA are to be appreciated as training programme for women members of VFCs was organised during December 1994 in which women were encouraged to think about their specific roles in VFCs.

India Development Service, a local NGO at Haliyal has succeeded in facilitating the formation of an all-women member VFC which can be encouraged as a learning process for KFD, NGOs and VFCs with regard to women participation in decision making process and understanding issues relating to women.

SUGGESTION : It is strongly suggested to conduct such training programmes to more number of women on JFFM at the village level or at least at the range level. These should also include exposure visits to other VFCs where women are participating fully. Care should be taken to facilitate maximum participation from women in the general body of the VFC as well as the Managing Committee.

### 2.6 ROLE OF NGOS IN JFFM PROCESS

NGOs feel that their role is to ensure that the JFFM process benefits the poorer and backward communities and other oppressed groups, including women. To date, a truly collaborative relationship between KFD and NGOs has failed to emerge. But recent discussions including the recent Advisory Committee meeting have

given us hope that this may happen. NGOs active in the respective area can be nominated to the VFC (for which provision is in the G.O.), and the divisional level working committees.

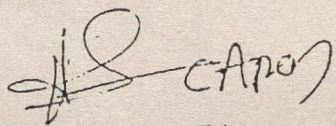
SUGGESTION : Co-ordination between NGOs and KFD should be strengthened. It is suggested to have a meeting on the first of every month to know the schedules of each and plan to visit the villages. It has been decided to ask VFCs where MOU has been signed to fix a date for a monthly meeting so that KFD and NGOs can attend the meeting.

## 2.7 INSTALLATION OF ASTRA CHULLAS.

When the Zilla Panchayat first introduced the astrachullas, they were not accepted by women as the system involved in putting firewood into the chullas was inconvenient. In course of time the Technology Demonstration Centre, Sirsi developed chullas with all modifications which are convenient to women. Many people were trained in construction of these chullas and it is a pleasure to note that wherever KFD has utilised the services of these trained people, the astrachullas have proved successful.

SUGGESTION : Constant follow up with women in assessing the difficulties and necessary guidance in using the chullas in the initial stage is a must. Mere installation will not help. As the installation of chullas is also one of the programme of the Zilla Panchayat. The Zilla Panchayat and the KFD need to co-ordinate properly in selection of villages.

DATE: 9.2.1995  
PLACE: SIRSI

  
(J. S. APOJ)  
Co-ordinator  
Uttara Kannada NGOs network.

### COPIES FOR INFORMATION TO :

1. The Development Commissioner.
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5. The Chief Secretary, The Zilla Panchayat, Uttara Kannada.
6. President, (REVODF)
7. JCA Mid term review mission.

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## WESTERN GHATS FORESTRY PROJECT BRIEF PROJECT DESCRIPTION

The project's goals are, firstly, to assist in the long term conservation of the biodiversity of the Western Ghats through new forest management approaches. Secondly, it seeks to find ways to assist those, especially the poor, whose livelihoods are dependent on the forest, to establish these on a sustainable basis. The project seeks to achieve these through assisting the Karnataka Forest Department (KFD) to implement the national policy of encouraging popular participation in forest management decision making.

The project is predicated on a number of understandings:

- That the Forest Department is the primary body responsible for co-ordinating forest-related activities, so that its capacity to discharge these responsibilities needs to be ensured.
- That successful conservation cannot be achieved without mobilising the active support and involvement of local populations.
- That traditional forest management procedures and practices will not be adequate to cope with the envisaged pressure on forest resources, so that new and effective approaches need to be found.
- That such approaches will involve working with a wider range of bodies and organisations than has traditionally been the case, including user groups, NGOs and research institutions as well as other official bodies.
- That the successful management of forests as extensive and diverse as the Western Ghats will require a much wider range of knowledge and understanding than has traditionally been available to the Forest Department.

The project proves two main approaches to these problems:

### **Forest management operations**

These consist of a range of new practices which will include a more flexible approach to planting to reduce costs, an extensive research programme, improved internal information flows to improve decision making and the establishment of a long term training capability. A major element is to utilise a Geographical Information System (GIS) to facilitate speedier and more effective monitoring of changing forest conditions and work activities.

### **Joint Forest Planning and Management (JFPM)**

This is a multi-staged process which starts with a zonation exercise, during which a common agreement is to be established between KFD and local communities about the quality of forest in a locality and the patterns of pressure on it. From this a microplan is devised which sets out how the relevant forest resources will be used, including both joint management of degraded land (Zone IV) and access of local people to areas under direct KFD management (Zones II & III). The degraded land will be jointly managed to meet local needs and it will be possible for communities to share financial benefits from this. A Village Forest Committee is to be established which will enter into a binding agreement with KFD to implement the microplan with KFD's assistance. This requires new arrangements to make such agreements legal, which is provided by a Government Order. The JFPM activities will be conducted by specially constituted teams of RFOs, working with local forest Guards. These receive special training in participatory techniques from MYRADA, one of the country's leading NGOs.

Both components are interactive and it is envisaged that the JFPM system will serve as a mechanism for providing more effective communications between local communities and the Forest Department in a range of areas.

The project will fund all the planting activities of KFD in the project area, which are expected to be 50% greater than pre-project levels. It is envisaged that all planting activities

in the project area will be implemented under JFPM procedures before the end of the project period. The project starts in one Circle (Uttara Kannada) containing five Divisions, and in PY3 a second Circle is to be incorporated provided that progress is satisfactory. It is envisaged that, overall, the experience from JFPM field activities and the strengthened capacity at the centre will enable KFD to extend the new approaches developed under the project to the remainder of the Western Ghats that fall within their responsibility.

JFPM at field level is co-ordinated by the new Planning and Monitoring Cell, a small unit of professional foresters who have received special training in a range of skills involved in participatory forestry. They oversee the work of the JFPM teams in their work of establishing microplans with local communities. The PMC is an integral part of the Circle administration and also provides planning and operational guidance to the Conservator, who has overall responsibility for the work of the project in his area. One of the objectives of the project is to establish effective new management approaches and it is expected this will entail moving away from the traditional dependence on centrally determined Working Plans, with a move to a more needs-oriented approach derived from JFPM. The PMC will have a key role in exploring how these two approaches are to be integrated at the practical level.

In addition to supporting field activities the project strengthens a number of elements of the Forest Department's structure. The project thus funds a small number of new posts in KFD's headquarters. The main ones are in the Planning and Monitoring Unit (PMU), a small project administration that co-ordinates the project's activities and oversees the planning and information flows that will help shape the changes to KFD's structure. The PMU has responsibility for the establishment of the GIS and the training programme, as well as an involvement in research.

The substantial research component is intended to not only increase the amount of knowledge about important aspects of the complex ecology of the Western Ghats, but also to provide experience in commissioning research across a range of areas to which the Forest Department has traditionally had little exposure. The intention is to enable KFD to develop successful collaborative relationships with a number of research institutions able to respond to the Forest Department's expressed needs. The successful incorporation of the results of this increased

knowledge will be a further stimulus to change within KFD. A similar process will take place with regard to training, so that the emerging training needs of the Department can be met with the assistance of collaborating institutions. Both of these elements will eventually be carried forward by the Forest Research and Training Institute (FoRTI), which will have a state-wide remit.

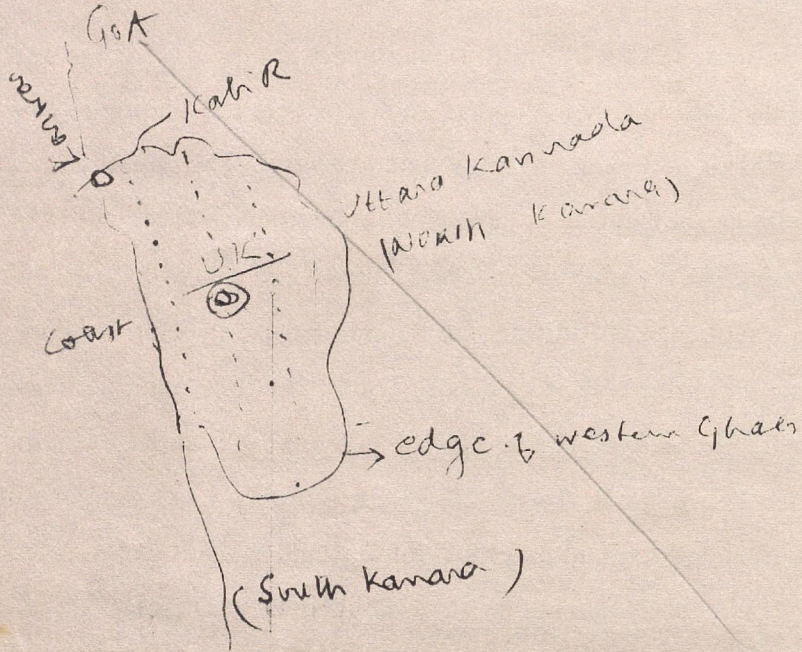
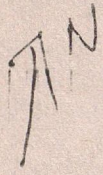
The bulk of the project's funds (£18.074 million), the main grant, is allocated for funding local costs under a capital allocation. Most of the money covers the planting costs, with a smaller amounts for salaries of new staff, training and research. These funds are allocated by KFD in terms of an annual budget that is agreed with the ODA Forestry Office. To date the budgets have been based on the outline financial figures given in the Project Proposal. Once the budget has been agreed, expenditure can be claimed retrospectively each quarter by KFD, again after consultation with the ODA Forestry Office. The main grant is made to the GoI, who have an arrangement to allocate 30% of this to GoK, whilst the remainder is loaned over 15 years at 9.8% interest. In addition there is a sum of £5.220 million for Technical Co-operation, intended to fund external training and consultancies, with a small amount for equipment.. This is administered by the ODA Forestry Office.

The project is officially designated as a process project which is expected to learn from the experience of working towards achieving its objectives and to modify activities in the light of this experience. As a result the Project Framework (PF) does not spell out in great detail how the Outputs are to be achieved. One of the roles of the annual monitoring mission will be to jointly agree a range of appropriate milestones for the coming year, which will then be entered into the PF. These become the basis for the coming year's activities and the Forestry Office's monitoring. The Forestry Office incorporates a number of visits to Bangalore and the project area into its annual work plan in relation to these milestones, which also includes attendance at the project's committees.

South Asia Department

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WESTERN GHATS FORESTRY PROJECT

Prior to the British entry into India, the forests were considered the common property of the neighbouring villagers and were well conserved by them since they were nearly totally dependent on them to supply agricultural inputs and the raw materials on which their village industries thrived.

The enclosure of the forests by the British reduced their agricultural productivity, damaged their village industries, denied them access to wild foods and fodder, harmed their health and had a multitude of other impoverishing effects.

The Forest Department saw its role as the maximisation of the revenue for the State. Income was dependent mainly on hardwood timbers required by the westernised industrial and urban society in large quantities. It is mainly this that has resulted in the degradation and destruction of the forests.

The people who had lived on the numerous forest products, extracted sustainably for centuries, were now forced to sell headloads of fuelwood, or smuggle out felled timber, and clear further pieces of forested land for cultivation, all solely for bare survival. These were considered illegal activities, whereas what was illegal was the enclosure by the colonial and State Governments.

The enclosure of the forests also damaged them ecologically. Commercially "valuable" species, such as teak and rosewood, were selectively felled, and where reforestation was undertaken it was only with a very limited number of species, constituting a major loss in biodiversity and sustainability of the ecosystem.

This wholly British-devised system is being promoted by the ODA as the "traditional" forest management system, when it should be the pre-British system that is really traditional.

### The Degradation

The ODA Final Project Proposal (1992) states four reasons for the present degraded state of the forests.

Logging is the first, the FPP claiming that local people "are responsible for much of the biotic pressure on the forest". But the figures given of the income of the FD shows that it is the FD that is responsible for nearly all the logging.

People are also blamed for taking away headloads of fuelwood and the theft of young trees for small-size timber. The local people had been earlier impoverished by depriving them of their rights to forest produce, forcing them to supplement their income by stealing timber and other products from what were their own forests.

The ODA admits that the local people are still "highly dependent" on the forests for their livelihoods. Yet the FD now auctions all these products, getting a considerable income which goes to the State, which then doles out a minute quantity for "village development". The entire system is a local replica of earlier colonial extraction and its present supposed compensation by international aid. The ODA spends part of what the British colonial government earlier extracted from India and what it extracts today through inequitable terms of trade, on schemes like the WGFP.

Such institutionalisation of what the local people were doing has been an effective means of transferring wealth from the people to the contractors, the FD officials, the FD and the state.

If the well-being of the people is the concern of the State, then the simplest solution would be to restore to the people what is rightfully theirs, allowing them to collect, use and trade all minor forest products freely. It is only in this manner that the societal aims of the ODA can be fulfilled: "To assure the sustainability of the living standards of those people whose

livelihoods currently derive, in whole or in part, from the forest".

Moreover, the dependency of farmer and forest was mutual. The forest was closely integrated into the farming and village industry system, which required that the people protect it in order to survive; this they did for centuries. Today, those village industries have been replaced by large enterprises, for which "forest resources" such as bamboo have been provided at extremely low rates, with no regeneration liabilities.

Still another cause listed by the FPP states: "Livestock grazing throughout the forest, has also done much damage".

Grazing was always an integral part of pre-British traditional forest management, with a high availability of fodder and little damage to the forest. It was the enclosures by the British that led to a reduction of available pastures, with consequent overgrazing in those small areas to which the villagers still had access. A major process of effective enclosure was the gradual conversion of natural forests into plantation monocultures of teak, later eucalyptus and now Acacia auriculiformis, none of which permit good fodder grasses to thrive under them.

Moreover, the ODA consultative committee, in its first report, admitted that "Certainly it would be difficult to conclude from our short visit that they (the pastoralists) are the major problem, in terms of livestock, facing the Forest Department".

The fourth cause listed: "Fire is a major problem...".

Again livestock owners are blamed for most of the fire since they regularly burn dry grass before the monsoon. Such burning is also a pre-British traditional forest management practice. Not only does it produce a good flush of new grass, but it also serves to kill cattle pests such as ticks. The fires also help to recycle nutrients rapidly.

Where burning is legally permitted, herders carefully control it so as not to allow the fire to spread, with wind speed and

direction being taken into account. Since it is illegal now, the grass is set on fire and the person leaves the area because he is afraid of being caught; the fire burns uncontrolled.

### The Project

The objectives of the Project are stated as being the following:

**Ecology:** To maintain the ecological balance and the environmental stability of the Western Ghats, to preserve their unique flora and fauna and to increase understanding of them.

**Environment:** To rehabilitate and protect the major environmental resources represented by the Western Ghats forests.

**Society:** To assure the sustainability of the living standards of those people whose livelihoods currently derive, in whole or in part, from the forest.

**Economy:** To assure the sustained yield of all categories of produce proper to the natural forest, so as to secure sound economic welfare for future generations.

The Brief Project Description adds, evidently as an afterthought, that it also aims to increase the biodiversity of the region.

The benefits arising from the project are claimed to be: "the planting of new forest stock, the protection and natural regeneration of existing stock, a more economic choice of species/land use, more efficient silvicultural practices including improved species and seedling selection".

The promise of natural regeneration is contradicted by the other "benefits" mentioned. Moreover, the project benefits listed are only those that accrue to the KFD. In this section no benefit to the local people is mentioned- because there is effectively none.

The FPP's accent on the "most valuable species", taken as economically valuable, shows that the interest in biodiversity is

nominal, since all plant species, and fauna too, should be considered equally valuable. Conserving or increasing biodiversity and commercialisation by clear felling are contradictory aims. The selective felling of "most valuable species" has resulted in the present ecologically unbalanced forests. But even here it is not the ecological unbalance that is of importance to the KFD and ODA, but the economic unbalance, caused by the lack of species to exploit commercially.

Since the start of the project in 1993, there is absolutely no evidence to show that any attempt whatsoever has been made or is proposed to be made to improve the ecological situation and increase biodiversity. In the plantations carried out in the majority of villages surveyed, *Acacia auriculiformis* has been planted to the extent of 90%.

This acacia species is a recently introduced Australian species and cannot by any stretch of the imagination be considered as contributing to restoring or maintaining the Western Ghats' unique flora. This species in addition, prevents indigenous species of plants from coming up naturally. Moreover the ODA plantations, even if mixed, will be cut down in ten years, and cannot "assist in the long term conservation of biodiversity of the Western Ghats".

According to the FPP, gaps in the forest will be planted with "valuable timber species", "with an aim of restoring the 'natural' mix of the forest".

Several of these gaps have been earlier created when the KFD clear felled existing forest or their own earlier plantations. In all these "gaps" there was considerable natural regeneration. It is preposterous to state that planting a few specific species can restore the natural mix of a forest which normally contains several hundred species.

The FPP states the exact number of trees per hectare to be replanted. Specifications of fuelwood, fodder, green manure and fruit/NWFP (non-timber Forest Products) "models" are given. The provision of such specific models contradicts all apparent concerns with biodiversity and natural forests. The very suggestion

of models reveals that the ODA's experts do not have a clue about the true multipurpose nature of nearly all species of forest trees, shrubs and herbs as well. Open spaces are a part of all natural forests. Closing them up reduces biodiversity.

"Fuelwood model: with 50% of the area planted to fuelwood species which will be removed once the canopy cover has been established." This implies that there is no long-term aim to provide the local people with fuelwood.

"Silvicultural issues. Little is known about the medium-to-long-term behaviour of mixed plantations". If "little is known" about mixed plantations it is because of the complex interactions between plant species and between plants and fauna. Understanding the behaviour of natural forests is next to impossible.

Biodiversity can only be maximised when forests are left to regenerate by themselves. Such a goal cannot be achieved by a "planning and design process", which is a process of selectively interfering with the forests. Neither can this be called natural regeneration. No plantation, however mixed, can ever foster such aims. Villagers often said that if the forest is left to itself there will be natural regrowth showing that interference is unnecessary.

A curious part of the project is the division of the whole forest area into zones: Ecologically important areas; Main forest with good potential; Main forests with pockets of settlements; Edge of forest reserve, near settlements; and Outside forest, near settlements. This again negates the statement that biodiversity is being promoted. It is not stated anywhere that the old growth forests will not be felled. In fact, the term "good potential" refers to economic potential only. These zones are being "protected" only so that they may be more lucratively felled in the future. But all zones need to be equally protected-mainly from the FD's voracious, termite-like appetite for timber. The conservation of biodiversity and the FD's requirement to supply the needs of a high consumption industrial society are incompatible.

In the section on benefits, it is stated that "The gap planting models, representing long cycle species, were very sensitive to the discount rate, and showed low returns to new planting alone. However, when the return to the whole area, including the incremental productivity of existing stock which will be thinned at the time of gap planting is included the returns are considerably higher". This is an admission that the ODA plantations by themselves are uneconomical from the KFD's point of view and that it is necessary to include the exploitation of the rest of the old forest for it to be economical.

Sustainability for the ODA merely means ensuring "future revenue flows" from the forests, not ensuring that the forests remain.

There is, of course, another possibility. Is the ODA project being financed and is biodiversity being conserved only so that the UK pharmaceutical firms have a special access to the species of India?

### Strategies

The ODA states that the project will achieve its objectives by a strategy based on four processes.

1. "The project aims to enhance and improve the management capability of KFD, and in particular enable it to respond to the conflicting demands from different users for access to the products and services of the forest areas".

The KFD and previous forest departments have been chiefly responsible for the present situation, and they have shown no signs of a major attitudinal shift. Improving the KFD's management capability, therefore, can only result in increasing its proficiency in the efficient destruction of the forests. Further, the ODA's stress on the "enhanced management capability" implies increased interventions.

The ODA requires that a huge new bureaucracy, with extensive infrastructural facilities, be established, once the ODA aid is

withdrawn, however, these will still need to be funded by the State, which can only obtain the revenue from greatly expanded forest exploitation.

2. "Ensuring poor people, women, tribals, and other disadvantaged groups who are substantially dependent on the forests are not worse, and preferably better off".

So far all that the KFD has accomplished is to make them much worse off, particularly the already marginalised, those with little or no land. The ODA plantations have been mainly of village commons which provided pasture, fuel, manures, medicinal plants and other produce. The enclosing of these areas by the KFD has forced people to take their cattle much further for grazing and the women have to travel longer distances to collect fuel and other products. The reduction in availability of cattle and green manures results in lower agricultural productivity. The impoverished farmers are forced to obtain more from the forest for bare survival, thus providing positive feedback. The system is designed for forest destruction.

Women are most affected by the decrease in availability of fuel with which to cook. The distance to which they need to travel to collect fuel daily has been increased in many villages. A reduction in the availability of fuel could result in insufficiently cooked food, with a reduction in its nutritive value, and hence an effective decrease in food production.

Families have also been evicted from cultivated encroached lands from which farmers have been evicted, depriving them of their livelihood, with no compensation whatever.

The tribals affected in this area are the Gowlis, originally pastoralists. They have been forced to settle in villages, with reduced herds since there is insufficient grazing. Their situation has also worsened after the commencement of the ODA project and may result in effective genocide.

Plantation areas varied from 20 acres to 130 acres, with no relation to the village population or their actual needs.

The people want their daily needs satisfied now, whereas they have been deprived of them now with the promise of an unspecified income after ten years.

3. "Minimising further loss of forest cover and resources, and the service they provide."

From the actions of the KFD, the accent seems to be on the resources provided, not the loss of forest cover, since plantation areas are often cleared before planting monocultures. Moreover, it is also clear that the project envisages preventing villagers, from reducing forest cover only so that the KFD can do so more lucratively at a later stage.

4. "Increasing understanding of the Western Ghats eco-system."

An extremely complex ecosystem, such as a rain forest can, perhaps, never be understood even to the minimal extent where a particular intervention can be shown not to be harmful. Preserving the system, involves reducing intervention and leaving the system to evolve in its own time and in its own manner.

#### **Joint Forest Planning and Management (JFPM)**

Considerable emphasis is being given to the JFPM aspect of the project.

Since the whole project has been planned right down to "planting Models" and "Micro Plans", the participation of the people is minimal, restricted to guarding the plantations.

In some Village Committee meetings, when asked for a reduction in the number of *Acacia auriculiformis* plants, the KFD officials answered that the real aim of the plantations was to increase production of fuelwood only and they were ordered to do so. When questioned about the loss of grazing, the KFD said that they were helpless and had to carry out the plan.

"Micro-plans will be prepared in consultation with KFD. These associations will be well-placed to assess their needs, but may lack knowledge on the sustainable level of exploitation of their local forest resources". Can there be sustainable exploitation of forest resources?

"The fourth stage is the drawing up and registration of Management Contracts or Forest Agreements between KFD and user/community groups. This will legally establish villagers with a stake in the assets. It also avoids any weakening of KFD's ownership of forest land. "

This latter sentence is the crux of the programme. These contracts will further deny people's rights over their own common property. It is evident that the ODA has not yet realised the error of the ways of its British ancestors which initiated the problems-or perhaps, its intentions are the same.

### **Training**

A number of Indian forest personnel "will undergo training in the UK on existing short courses" for among other things, "social and economic dimensions of 'local needs' forestry".

What one wonders do UK "experts" know about the social and economic dimensions of local needs forestry, when all British experience has been in exploiting the local people and the national economy? Unless, of course, the unsaid agenda of the ODA is to continue the processes of exploitation initiated by colonial planned projects which were, only temporarily, rudely interrupted by independence.

### **The Real Agenda?**

Among the non-forestry benefits listed is "CO2 absorption", which is valued at Rs. 3000 per ha per annum. It could be that its real value accrues the UK rather than to India. With the emphasis on plantation of exotic species in forests which already have a high cover, it appears that it could possibly be the British

Government's desire to claim the whole of the Karnataka forest area as compensatory carbon dioxide sequestration for continuing emissions in the UK. While there is no official agreement yet on compensatory forest plantation in the Climate Change Convention, testing is allowed.

### Conclusion

The ODA project in Karnataka, and other similar projects, infringe on human rights to food, health, and employment and hence on their rights to life itself.

There is a clear conflict between the aims of maximising the income of the FD and increasing the welfare of the people who use the forest for their basic needs, as well as conserving the forests.

If the ODA and the KFD are sincere in their desire to implement the stated aims, then their plans are inappropriate, with their scientific and sociological basis questionable. On the other hand, if "the economic welfare" refers to distant industrial and political elites not to the local people, then the project is eminently suited as it provides for the efficient means of transfer of wealth from villages to urban industrial centres with the collateral damage of impoverishment of the villagers.

### Alternative Solutions

Villagers had been sustainably controlling their surrounding forests for centuries, obtaining much of their essential needs from them. Or rather, the local people according to Pre-British traditional management practices restricted their requirements to what could be sustainably obtained from natural forests. Some of these traditional forest management systems still exist and it is these that should be protected and multiplied.

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ಪ್ರಜಾವಾಣಿ ಕರ್ನಾಟಕ ದರ್ಶನದಲ್ಲಿ ಪ್ರಕಟಣೆಗಾಗಿ.

## ವೈವಿಧ್ಯದ ಅರಣ್ಯ ಜಿಲ್ಲೆಯ ವೈವಿಧ್ಯ. ಇಲ್ಲಿ ಬೆಳೆಸಿದ್ದಕ್ಕೆಂತ ಈ ವರ್ಷ ಬೋಳಿಸಿದ್ದೇ ಜಾಸ್ತಿ!?

ಚಿತ್ರ-ರೇಖನ: ಶಿವಾನಂದ ಕಳವೆ.<sup>1</sup>

ರಾಜ್ಯದ ಅರಣ್ಯ ಜಿಲ್ಲೆಯೆಂದೇ ಕರೆಯುವ ಉತ್ತರ ಕನ್ನಡದಲ್ಲಿ ಈ ವರ್ಷ ಕರ್ನಾಟಕ ಅರಣ್ಯ ಇಲಾಖೆ ಏನೆಲ್ಲ ಕೆಲಸ ಮಾಡಿದೆ? ಜಿಲ್ಲೆಯ ಕಾಡುಮೇಡಿನ ಹಳ್ಳಿ ತಿರುಗಿ ಅರಣ್ಯ ಅತಿಕ್ರಮಣದಾರರ ಪಟ್ಟಿಮಾಡಿದೆ. ಈ ಬಗೆಗೆ ನ್ಯಾಯಾಲಯದಲ್ಲಿ ಪ್ರಕರಣ ದಾಖಲಿಸಿಲು ಅನುಕೂಲವಾಗುವಂತೆ ಪಂಚನಾಮೆ ವರದಿಗಳನ್ನು ಸಿದ್ಧಪಡಿಸಿದೆ. ನೈಸರ್ಗಿಕ ಅರಣ್ಯದ ಲಾಗಿಂಗ್ ಕಾಮಗಾರಿಗಳ ಕ್ಷೇತ್ರದಲ್ಲಿ ಗಾರ್ಡ್, ಫಾರೆಸ್ಟರ್‌ಗಳು ಓಡಾಡಿ ಕಾಡಿನಲ್ಲಿ ಮುರಿದು ಬಿದ್ದ ಹಾಗೂ ಒಣ ಮರಗಳನ್ನು ಕಡಿಯಲು 'ಮಾರ್ಕಿಂಗ್ ಲೀವ್ಸ್' ತಯಾರಿಸಿ ಒಣ ಮರ ಕಡಿಯುವ ಪ್ರಕ್ರಿಯೆಗೆ ನೆರವಾಗಿದ್ದಾರೆ. ಇನ್ನು ನೈಸರ್ಗಿಕ ಕಾಡಿನಲ್ಲಿ ಬೆಳೆದ ದೊಡ್ಡ ಮರಗಳನ್ನು ಕಡಿಯುವಂತೆ ಕರ್ನಾಟಕ ಅರಣ್ಯ ಸಚಿವರು ವಿಶೇಷ ಆಸಕ್ತಿ ತೋರಿಸಿದ ಮೇಲೆ ಮರ ಕಡಿಸುವ ಯೋಜನಾ ಪೂರ್ವ ಸಮೀಕ್ಷೆ ಗಾಗಿ ಅಧಿಕಾರಿಗಳು ಕಾಡಿಗೆ ಹೋಗಿದ್ದಾರೆ. ಅಲ್ಲಿ ೨೫೦ ಸೆಂಟಿ ಮೀಟರ್‌ಗಿಂತ ಹೆಚ್ಚು ಸುತ್ತಳತೆಯ ದೊಡ್ಡ ದೊಡ್ಡ ಮರಗಳ ಯಾದಿ ತಯಾರಿಸಿ ಬೆಳೆದು ನಿಂತ ಹಸಿ ಮರಕಡಿಯುವ ಯೋಜನೆಗೆ ದುಡಿದಿದ್ದಾರೆ. ಈ ಹಿಂದಿನ ಅರಣ್ಯ ಯೋಜನೆಯಿಂದ ಬೆಳೆಸಿದ ಆಯ್ದ ಅಕೇಶಿಯಾ, ಗಾಳಿ ನೆಡುತೋಪುಗಳನ್ನು ಕಡಿಸಿ ಜಿಲ್ಲೆಯ ಉರುವಲು ಬೇಡಿಕೆ ಪುರೈಸಲು ಪ್ರಯತ್ನಿಸಿದ್ದಾರೆ. ಇದೇ ನೆಡುತೋಪುಗಳಲ್ಲಿ ಕೆಲವು ಪ್ರಮಾಣವನ್ನು ಕಾಗದ ಕಾರ್ಖಾನೆಗೆ ಒದಗಿಸಿದ್ದಾರೆ. ಬಯಲು ಸೀಮೆಯ ಮೇದಾರ ಸಂಘಗಳಿಗೆ ೮-೯ ಲಕ್ಷ ಹಸಿ ಬಿದಿರನ್ನು ರಿಯಾಯಿತಿ ದರದಲ್ಲಿ ಒಪ್ಪಿಸಿದ್ದಾರೆ. ಇದಲ್ಲದೆ ಆಗಾಗ ನಾಟಾ ಕಳ್ಳಸಾಗಣೆಯನ್ನು ಹಿಡಿದಿದ್ದಾರೆ. ತ್ರಿಗಂಧ ವಶಪಡಿಸಿಕೊಂಡಿದ್ದಾರೆ. ಇದಲ್ಲ ಅತಿಕ್ರಮಣ, ಕಟಾವು ಎಂದು ಅರಣ್ಯನಾಶದ ದೊಡ್ಡ ಧ್ವಂಸ ಕಾಂಡವೇ ಆಯಿತು. ಇದನ್ನು ಬಿಟ್ಟು ಇನ್ನೇನು ಮಾಡಿದ್ದಾರೆ?

ಅರಣ್ಯ ಸಂರಕ್ಷಣೆ, ಸಂವರ್ಧನೆಗಳು ಇಲಾಖೆಯ ಮುಖ್ಯ ಕೆಲಸ ತಾನೆ? ಅರಣ್ಯೇಕರಣಕ್ಕಾಗಿ ಬುಲ್ಡೋಜರ್‌ಗಳ ಅಬ್ಬರ, ಅರಣ್ಯ ನರ್ಸರಿಗಳಲ್ಲಿ ಹತ್ತಾರು ಲಕ್ಷ ಸಸಿಗಳ ಆರೈಕೆ. ಬಯಲು ಭೂಮಿಗಳಲ್ಲಿ ಹಸಿರು ಹಚ್ಚಡ ಹಚ್ಚುವ ಉತ್ಸಾಹ. ಮಳೆಗಾಲ ಬಂತೆಂದರೆ ಅರಣ್ಯ ಇಲಾಖೆಯ ಸಿಬ್ಬಂದಿಗಳೆಲ್ಲ ಸಸಿ ನೆಡುವ ಕಾಯಕದಲ್ಲಿ ತಲ್ಲೀನರು. ಜಿಲ್ಲೆಗೆ ಜಿಲ್ಲೆಯೇ ಅರಣ್ಯಾಭಿವೃದ್ಧಿ ಚಟುವಟಿಕೆಯಲ್ಲಿ ತಲ್ಲೀನವಾದಂತಹ ಚಿತ್ರಗಳು.... ಶಾಲಾ ಮಕ್ಕಳು, ಗ್ರಾಮಸ್ಥರಾದಿಯಾಗಿ ಎಲ್ಲರನ್ನೂ ವನ ಮಹೋತ್ಸವಗಳಲ್ಲಿ ಕೂಡಿಸುತ್ತಿದ್ದ ಸಾಮಾಜಿಕ ಅರಣ್ಯ ಯೋಜನೆಯ ಕಾಲದ ಉತ್ಸಾಹಗಳು ಈಗ ಮಾಯ. ಜಿಲ್ಲೆಯ ಬಹುತೇಕ ಅರಣ್ಯ ನರ್ಸರಿಗೆ ಭೇಟಿ ನೀಡಿದರೂ ಇದೇ ಸ್ಥಿತಿ. 'ಗಿಡ ನೆಡಿ ಗಿಡ ನೆಡಿ' ಎಂದು ಪಶ್ಚಿಮ ಘಟ್ಟದಲ್ಲಿ ೧೫ ವರ್ಷಗಳಿಂದ ಹೇಳುತ್ತಿದ್ದ ಕರ್ನಾಟಕ ಅರಣ್ಯ ಇಲಾಖೆ ಈಗ ಇಲ್ಲಿ ಮಂಕು ಕವಿದು ತೆಪ್ಪಗೆ ಕೂತಿದೆ. ಏಕೆಂದರೆ ನೆಡುವದಕ್ಕೆ ಜಾಗವಿದ್ದರೂ ನೆಡಲು ಸಸಿಯಿಲ್ಲ. ವರ್ಷಕ್ಕೆ ೪-೫ ಲಕ್ಷ ವಿವಿಧ ಜಾತಿಯ ಸಸಿ ಬೆಳೆಸುತ್ತಿದ್ದ ಉತ್ತರ ಕನ್ನಡದ ಒಂದು ಸಸ್ಯ ಪಾಲನಾ ಕ್ಷೇತ್ರದ ಈ ವರ್ಷದ ಅರಣ್ಯಾಭಿವೃದ್ಧಿಯ ಚಿತ್ರ ಇಲ್ಲಿದೆ. ಆದರೆ ಇಲ್ಲಿರುವ ಸಸಿಗಳ ಸಂಖ್ಯೆ ಕೆಲವು ಸಾವಿರ ಮಾತ್ರ. (ಅದರಲ್ಲಿ ಬಹುತೇಕ ಸಸಿಗಳು ಕಳೆದ ವರ್ಷ ನೆಡದೇ

<sup>1</sup> ( ಆಧಾರ: ಕೆನರಾ ವೃತ್ತ ಅರಣ್ಯ ಇಲಾಖೆಯ ೧೯೯೮-೯೯ರ ಜಿಲ್ಲೆಯ ಲಾಗಿಂಗ್ ಕಾಮಗಾರಿಯ ಮಾರ್ಕಿಂಗ್ ಲೀವ್ಸ್‌ನ ಅಂತಿಮ ಪಟ್ಟಿ ಹಾಗೂ ವಾರ್ಷಿಕ ಅಂಕಿ ಸಂಖ್ಯೆಗಳು. ಇಲಾಖೆಯ ಪ್ರಕಟಿತ, ಮಾಹಿತಿ ವರದಿಗಳು. )

ಮಿಕ್ಕಿದ್ದು) ನರ್ಸರಿಯ ಇನ್ನುಳಿದ ನೆಲವೆಲ್ಲ ಕಳೆತುಂಬಿ ಹಾಳುಸುರಿಯುತ್ತಿದೆ. ಹಸಿರು ಬೆಳೆಸುವ ಕಾರ್ಯಕ್ಕೆ ಮೆರಗು ತುಂಬಿದ್ದ ಊರಲ್ಲಿ ಈ ವರ್ಷ ಅಘೋಶಿತ ರಜೆ. ಹಾಗೆ ನೋಡಿದರೆ ಜಿಲ್ಲೆಯ ಒಟ್ಟೂ ಭೂಮಿಯಲ್ಲಿ ೮೦.೫೭ರಷ್ಟು ಪ್ರದೇಶ ಅರಣ್ಯ ಭೂಮಿ. ಹೀಗಾಗಿ ಇಲ್ಲಿ ಸಸಿ ನೆಡುವ ಕರ್ನಾಟಕ ಅರಣ್ಯ ಇಲಾಖೆಗೆ ಬಿಡುವಿರಬಾರದು. ಆದರೆ ಈಗ.? ಕಾಲವೂ ಬೇರೆ...ಕತೆಯೂ ಬೇರೆ!

ವಿಶ್ವ ಬ್ಯಾಂಕ್ ನೆರವಿನ ಸಾಮಾಜಿಕ ಅರಣ್ಯ ಯೋಜನೆಯಲ್ಲಿ ೧೯೮೪ರಿಂದ ಈ ಪಶ್ಚಿಮ ಘಟ್ಟ ಪ್ರದೇಶಗಳಲ್ಲಿ ಅರಣ್ಯ ಸಸ್ಯಪಾಲನಾ ಕೇಂದ್ರಗಳನ್ನು ವಿಶೇಷವಾಗಿ ಆರಂಭಿಸಲಾಯಿತು. ಸಾಮಾಜಿಕ ಅರಣ್ಯ ಯೋಜನೆ ಜಾರಿಯಾದ ೧೯೮೫ರ ಹೊತ್ತಿಗೆ ವರ್ಷಕ್ಕೆ ಸುಮಾರು ಒಂದು ಕೋಟಿ ಸಸಿ ಬೆಳೆಸಿ ೧೮-೨೦ ಸಾವಿರ ಹೆಕ್ಟೇರ್ ಅರಣ್ಯೀಕರಣವನ್ನು ಒಂದೇ ವರ್ಷದಲ್ಲಿ ಸಾಧಿಸಿದ ಹೆಮ್ಮೆ ಇಲ್ಲಿನದು! ಒಮ್ಮೆಯಂತೂ ಶಿರಸಿ ಉಪವಿಭಾಗವೊಂದರಲ್ಲಿ ಸುಮಾರು ೭೫ ಲಕ್ಷ ಸಸಿಗಳನ್ನು ಬೆಳೆಸಿ ಅರಣ್ಯೀಕರಣದಲ್ಲಿ ಬಳಸಲಾಗಿತ್ತು. ಇದಾದ ನಂತರ ಎಪ್ರಿಲ್ ೧೯೯೨ರಿಂದ ಬ್ರಿಟನ್ ನೆರವಿನ ಪಶ್ಚಿಮ ಘಟ್ಟ ಅಭಿವೃದ್ಧಿ ಯೋಜನೆ ಜಾರಿಯಾಯಿತು. ಜನಸಹಬಾಗಿತ್ವದಲ್ಲಿ ಹಸಿರು ಬೆಳೆಸುವ ಪ್ರಯೋಗ ನಡೆಯಿತು. ಪಾಲಿಸಿದರೆ ಪಾಲು ಎಂಬ ಬೋರ್ಡುಗಳು ಜನರನ್ನು ಆಕರ್ಷಿಸಿದವು. ಗ್ರಾಮ ಅರಣ್ಯ ಸಮಿತಿಗಳು ರಚನೆಯಾದವು. ನೈಸರ್ಗಿಕ ಸಂಪನ್ಮೂಲಗಳ ಸಂರಕ್ಷಣೆಗೆ ಜನಾಡಳಿತವನ್ನು ತೊಡಗಿಸುವ ಕಾರ್ಯ ಆರಂಭವಾಯಿತು. ಯೋಜನೆಯ ದಿನಗಳಲ್ಲಿ ಜಿಲ್ಲೆಯ ಮುಖ್ಯ ರಸ್ತೆಗಳಲ್ಲಿ ಓಡಾಡುವ ಸುಮಾರು ೨೫-೩೦ ವಾಹನಗಳ ಪೈಕಿ ಕನಿಷ್ಠ ಒಂದು ವಾಹನವಾದರೂ ಕರ್ನಾಟಕ ಅರಣ್ಯ ಇಲಾಖೆಯ ಬೋರ್ಡು ಹೊತ್ತಿರುತ್ತಿತ್ತು. ಏಲೋ ಗ್ರಾಮ ಅರಣ್ಯ ಸಮಿತಿಯ ಸಭೆ...ಮತ್ತೆಲ್ಲೋ ಬ್ರಿಟನ್ ಅಧಿಕಾರಿಗಳಿಂದ ನೆಡುತೋಪು ವೀಕ್ಷಣಾ ಕಾರ್ಯಕ್ರಮ. ಕಾರ್ಯಾಗಾರ, ಸಭೆಗಳೆಂದು ಅರಣ್ಯ ಇಲಾಖೆ ಚಟುವಟಿಕೆಯಲ್ಲಿತ್ತು. ಸಮರೋಪಾದಿಯಲ್ಲಿ ಆರಂಭವಾದ ಬ್ರಿಟನ್ ನೆರವಿನ ಜನಸಹಬಾಗಿತ್ವದ ಯೋಜನೆ ಮುಗಿದ ಮೇಲಿನ ಈ ಚಿತ್ರಗಳೂ ಸಮರದ ನಂತರದ ಸ್ಥಿತಿಯ ಹಾಗೆ ಕಾಣುತ್ತಿದೆ. ಯೋಜನೆಯ ಹಣ ಖಾಲಿಯಾದ ಮೇಲೆ ಸಸ್ಯಪಾಲನಾ ಕ್ಷೇತ್ರಗಳು ಹಾಳು ಬಿದ್ದಿವೆ. ಪಂಪ್ ಸೆಟ್ಟುಗಳು ಮೂಲೆಸೇರುತ್ತಿವೆ. ಸಸಿ ಬೆಳೆಸುವ ಗ್ರೀನ್ ಹೌಸ್ ಗಳು ಮುರಿದುಬಿದ್ದಿವೆ. ಯೋಜನೆಗಾಗಿ ಖರೀದಿಸಿದ ಪೆಟ್ರೋಲ್ ಜಿಪ್ಸಿಗಳನ್ನು ದುರಸ್ತಿ ಮಾಡಿಸಲು ಇಲಾಖೆಯ ಆರ್ಥಿಕ ಸ್ಥಿತಿ ಕೋಚನೀಯವಾಗಿದೆ.

ಜಿಲ್ಲೆಯಲ್ಲಿ ಸಾವಿರಾರು ಅರಣ್ಯ ಸಿಬ್ಬಂದಿಗಳನ್ನು ಹಳೆಯ ನೆಡುತೋಪು ನಿರ್ವಹಣೆ, ಕಟಾವುಗಳ ಕಾರ್ಯದಲ್ಲಿ ಮಾತ್ರ ತೊಡಗಿಸಲಾಗಿದೆ. ರಾಜ್ಯದಲ್ಲಿ ಅತಿ ಹೆಚ್ಚು ಅರಣ್ಯ ಭೂಮಿ (೮ ಲಕ್ಷ ಹೆಕ್ಟೇರ್ ) ಇಲ್ಲಿದೆ. ರಾಜ್ಯದ ಒಟ್ಟೂ ಅರಣ್ಯ ಆದಾಯದ ಪಾಲಿನಲ್ಲಿ ಉತ್ತರ ಕನ್ನಡದ ಕೊಡುಗೆ ಪ್ರಧಾನವಾಗಿದ್ದು ಪ್ರತಿಶತ ೪೫-೫೦ರಷ್ಟು ಆಧಾಯ ಈ ಜಿಲ್ಲೆಯಿಂದ ದೊರಕುತ್ತಿದೆ. ಕಳೆದ ೧೯೯೯-೨೦೦೦ದಲ್ಲಿ ಇಲ್ಲಿಂದ ೫೦ ಕೋಟಿ ರೂಪಾಯಿ ಆಧಾಯ ದೊರಕಿದೆ. ಕಳೆದ ೧೯೯೮ರಲ್ಲಿ ೯೬೬೨ ಹೆಕ್ಟೇರ್, ೧೯೯೯ರಲ್ಲಿ ೧೧.೦೨೦ ಹೆಕ್ಟೇರ್ ಭೂಮಿಯಲ್ಲಿ ನೆಡುತೋಪು ಬೆಳೆಸಲಾಗಿದೆ. ಆದರೆ ಈ ವರ್ಷ ಮೊನ್ನೆ ಮೊನ್ನೆ ಮಾರ್ಚ್ ೨೦೦೦ದವರೆಗೂ ಇಲ್ಲಿನ ನರ್ಸರಿಗಳಲ್ಲಿ ಒಂದೇ ಒಂದು ಗಿಡ ಬೆಳೆಸಲೂ ಇಲಾಖೆಯ ಅಧೀಕೃತ ಸಮ್ಮತಿಯಿರಲಿಲ್ಲ! ಹಣಕಾಸಿನ ನೆರವಿರಲಿಲ್ಲ! ಎರಡನೆಯ ಹಂತದಲ್ಲಿ ಮತ್ತೆ ಬ್ರಿಟನ್ ಹಣಕಾಸಿನ ನೆರವನ್ನು ಇಲಾಖೆ ನಿರೀಕ್ಷಿಸಿ ಯೋಜನೆ ತಯಾರಿಸಿ ಚರ್ಚೆ, ಸಭೆಗಳು ನಡೆಸುವದರಲ್ಲಿ ತಲ್ಲಿನವಾಗಿತ್ತು. ಈ ಮಧ್ಯೆ ಯೋಜನೆಯ ಸ್ವರೂಪದ ವಿಷಯದಲ್ಲಿ ಭಿನ್ನಾಭಿಪ್ರಾಯ ಬಂದು ಒಪ್ಪಂದ ಮುರಿದು ಬಿದ್ದು ವಿದೇಶಿ ನೆರವು ದೊರಕಲಿಲ್ಲ. ಹಿಂದೆ ರಾಜ್ಯವಲಯದ ವಿವಿಧ ಯೋಜನೆಗಳ ಹಣವನ್ನು ಅರಣ್ಯೀಕರಣಕ್ಕಾಗಿ ನೀಡುವ ರೂಡಿಯಿತ್ತು. ಅರಣ್ಯಾಭಿವೃದ್ಧಿಗಾಗಿ ಹೇಗಿದ್ದರೂ ಬ್ರಿಟನ್ ನೆರವಿನ ಯೋಜನೆಯದೆಯೆಂದು ಲೆಕ್ಕಹಾಕಿ ೧೯೯೩ರ ನಂತರ ಕಳೆದ ಮಾರ್ಚ್ ೨೦೦೦ದವರೆಗೂ ಕರ್ನಾಟಕ ಅರಣ್ಯ ಭವನದ ಅಧಿಕಾರಿಗಳು ಈ ಬಾಪ್ಪಿನಿಂದ ಅರಣ್ಯಾಭಿವೃದ್ಧಿಯ ಹಣವನ್ನು ಕೆನರಾ ವೃತ್ತ(ಉತ್ತರ ಕನ್ನಡ ಜಿಲ್ಲೆ)ಕ್ಕೆ ನೀಡಲಿಲ್ಲ. ಹಳೆಯ ಯೋಜನೆ ಮುಗಿದಿತ್ತು. ಹೊಸ ಯೋಜನೆ ಮಂಜೂರಿಯಾಗಲಿಲ್ಲ. ರಾಜ್ಯವಲಯದ ವಿವಿಧ ಯೋಜನೆಗಳ ಹಣವೂ ದೊರಕಲಿಲ್ಲ. ಹೀಗಾಗಿ ಇಲ್ಲಿ ಇಲಾಖೆ ಇಕ್ಕಟ್ಟಿಗೆ ಸಿಲುಕಿತು. ಹಣವೇ ಇಲ್ಲದೆ ಸಸಿ ಬೆಳೆಸುವದು ಹೇಗೆ.? ಮುಂಗಡವಾಗಿ ಸಸಿ ಬೆಳೆಸಿ ಈ ವರ್ಷದ ಮಳೆಗಾಲದಲ್ಲಿ ನಾಟಿ ಮಾಡುವ ಕಾರ್ಯಕ್ಕೆ ತೀರ್ಪು ಹಿನ್ನಡೆಯಾಯಿತು. ಬೇಸಿಗೆಯಲ್ಲಿ ನರ್ಸರಿಯಲ್ಲಿ ಸಸಿ ಬೆಳೆಸಲು ಪ್ರಯತ್ನಿಸಬೇಕಾದವರನ್ನು ಆಗಲೆ ಹೇಳಿದಂತೆ ಅತಿಕ್ರಮಣ ಯಾದಿ, ಮಾರ್ಕಿಂಗ್ ಲೀನ್ಸ್, ಅರಣ್ಯದ ಗಡಿ ಗುರುತಿಸುವ ಕೆಲಸಗಳಲ್ಲಿ ತೊಡಗಿಸಲಾಯಿತು.

ಹಿರಿಯ ಅಧಿಕಾರಿಗಳಿಗೆ ಈಗ ತಡವಾಗಿ ಜ್ಞಾನೋದಯವಾಗಿದೆ. ಸಸಿ ಬೆಳೆಸಲು ಪರವಾನಗಿ ದೊರಕಿದೆ. ೩೬೦೦ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಈ ವರ್ಷ ಸಸಿ ನೆಡುವುದಾಗಿ ಇಲಾಖೆಯ ಮೂಲಗಳು ಹೇಳುತ್ತಿವೆ. ಆರೆರೆ ಪರವಾನಗಿ ಸಿಕ್ಕು ಕೇವಲ ಒಂದೆರಡು ತಿಂಗಳಾಗಿವೆ. ಹೇಗೆ ಇಷ್ಟು ಬೇಗ ನರ್ಸರಿಗಳಲ್ಲಿ ಸಸಿ ಬೆಳೆಸಲು ಸಾಧ್ಯ? ಇಂದು ೩೫ ಲಕ್ಷ ಸಸಿಗಳು ಅರಣ್ಯ ನರ್ಸರಿಗಳಲ್ಲಿ ಬೆಳೆಸಲಾಗಿದೆ ಎಂದು ಹೇಳಲಾಗಿದೆ. ಅದು ಹೇಗೆ ದಿಡೀರ್ ಎಂದು ಸಸಿ ಬಂದವು ಎಂಬುದು ನಮ್ಮಂತವರಿಗೆ ಅರ್ಥವಾಗದ ಹಸಿರು ಸೃಷ್ಟಿಯ ಮಾಯಾಜಾಲ!

ಅದೇನೆ ಇದ್ದರೂ ಇಲ್ಲಿನ ಅಧಿಕಾರಿಗಳ ಈ ವರ್ಷದ ಸಮಯ ವಿನಿಯೋಗದ ಚಿತ್ರ ತಮಾಷೆಯಾಗಿದೆ. ೧೯೯೮-೯೯ರ ಅವಧಿಯಲ್ಲಿ ಜಿಲ್ಲೆಯಲ್ಲಿ ಅಧಿಕೃತವಾಗಿ ನೈಸರ್ಗಿಕ ಕಾಡಿನಲ್ಲಿ ೭೯.೨೭೭ ಒಣ ಮರ, ಹಸಿಮರಗಳನ್ನು ಕಡಿಯಲಾಗಿದೆ. ಒಂದು ಅಧ್ಯಯನದ ಪ್ರಕಾರ ಒಂದು ಮರ ಕಡಿದಾಗ ಅಕ್ಕಪಕ್ಕದಲ್ಲಿದ್ದ ಗಿಡಗಳು ಹಾಗೂ ಸಾವಿರಾರು ಏಳೆಯ ಸಸಿಗಳು ನಾಶವಾಗುತ್ತವೆ. (ಒಂದು ಮರ ಕಡಿಯುವುದರಿಂದ ಶರಾವತಿ ಕಣಿವೆಯಂತಹ ನಿತ್ಯಹರಿದ್ವರ್ಣ ಕಾಡಿನಲ್ಲಿ ೩೦ಸೆಂಟಿ ಮೀಟರ್ಗೂ ದೊಡ್ಡ ಗಾತ್ರದ ೩೦ಗಿಡಗಳು ಹಾಗೂ ೨೮೬೦ ಚಿಕ್ಕ ಚಿಕ್ಕ ಸಸಿಗಳಿಗೆ ಹಾನಿಯಾಗುತ್ತದೆ ಎಂದು ಅಧ್ಯಯನ ಹೇಳುತ್ತದೆ.) ಇದಲ್ಲದೇ ವಾಹನ ಸಂಚಾರಕ್ಕಾಗಿ ಕಾಡಲ್ಲಿ ರಸ್ತೆ ನಿರ್ಮಿಸಲಾಗುತ್ತದೆ. ಆಗಲೂ ಗಿಡಗಳ ನಾಶವಾಗುತ್ತದೆ. ಕಡಿದ ಮರಗಳಲ್ಲಿ ಸುಮಾರು ಶೇಕಡಾ ೩೫ರಷ್ಟು ಮರಗಳನ್ನು ನಿತ್ಯಹರಿದ್ವರ್ಣ ಕಾಡಿನಿಂದ ಪಡೆಯಲಾಗಿದೆ. ಇನ್ನುಳಿದ ೬೫ರಷ್ಟು ಆರೆ ನಿತ್ಯಹರಿದ್ವರ್ಣ ಹಾಗೂ ಎಲೆ ಉದುರಿಸುವ ಕಾಡಿನಿಂದ ಪಡೆಯಲಾಗಿದೆ. ಇದನ್ನೆ ಆಧಾರವಾಗಿಟ್ಟುಕೊಂಡರೆ ಮರಕಟಾವಿನ ಸಂದರ್ಭದಲ್ಲಿ ಕನಿಷ್ಠ ಹಲವು ಲಕ್ಷ ದೊಡ್ಡ ಗಿಡ ಹಾಗೂ ಲೆಕ್ಕಕ್ಕೆ ಸಿಗದಷ್ಟು ಎಳೆಯ ಸಸಿಗಳು ಸಹಜವಾಗಿಯೇ ತೊಂದರೆಗೆ ಒಳಗಾಗಿವೆ. ಇದಲ್ಲದೆ ೭.೭೫.೪೯೧ ಅಕೇಶಿಯಾ, ಗಾಳಿ ಮುಂತಾದ ಜಾತಿಯ ಗಿಡಗಳನ್ನು ನೆಡುತೋಪಿನಲ್ಲಿ ಕಡಿಯಲಾಗಿದೆ. ಜಿಲ್ಲೆಯ ಅರಣ್ಯ ಸಂರಕ್ಷಣೆಗಾಗಿ ಓರ್ವ ವೃತ್ತ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಯೂ ಸೇರಿದಂತೆ ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ, ಸಹಾಯಕ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ, ವಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ, ಫಾರೆಸ್ಟರ್, ಗಾರ್ಡ್, ಕಾರ್ಯಾಲಯದ ಸಿಬ್ಬಂದಿ, ವಾಹನ ಚಾಲಕರು, ದಿನಗೂಲಿ ನೌಕರರು ಮುಂತಾಗಿ ಎಲ್ಲಸೇರಿ ಸುಮಾರು ೨೩೪೩ ಜನ ದುಡಿಯುತ್ತಾರೆ ಎಂಬುದು ೧೯೯೫ರ ಹೊತ್ತಿನ ಒಂದು ದಾಖಲೆಯ ಉಲ್ಲೇಖ. ಎಲ್ಲ ಅಧಿಕಾರಿಗಳು ಸಿಬ್ಬಂದಿಗಳೆಲ್ಲ ಸೇರಿ ಈ ವರ್ಷ ಜಿಲ್ಲೆಯಲ್ಲಿ ತಲಾ ಸುಮಾರು ೧೫೦೦ ಸಸಿ ಬೆಳೆಸಿದ್ದಾರೆ ಎಂದು ಲೆಕ್ಕಹಾಕಬಹುದು! ಇವುಗಳಲ್ಲಿ ಪ್ರಮುಖವಾದ ಪ್ರತಿಶತ ೭೦ರಷ್ಟು ಅಕೇಶಿಯಾ ಗಿಡಗಳು. (ಬೆಳೆಸಿದ ಸಸಿಗಳ ಮೌಲ್ಯ ಒಂದು ಸಸಿಗೆ ೦.೫೦ ಪೈಸೆಯಿಂದ ಗರಿಷ್ಠ ೧೨ರೂಪಾಯಿ ಇರಬಹುದು. ಇದಕ್ಕಾಗಿ ಇವರಿಗೆ ಮಾಸಿಕ ಪಗಾರು, ಭತ್ಯೆ, ವಾಹನವೆಚ್ಚ ಮುಂತಾದ ರೂಪದಲ್ಲಿ ಎಷ್ಟು ಹಣ ಬಟವಡೆಯಾಗಿದೆ ಎಂಬುದರ ಮಾಹಿತಿ ಲಭ್ಯವಿಲ್ಲ. 'ಇದು ಶುದ್ಧ ತಪ್ಪು ಲೆಕ್ಕ. ನಾವು ಜಿಲ್ಲೆಯ ೮ ಲಕ್ಷ ಹೆಕ್ಟೇರ್ ಅರಣ್ಯವನ್ನು ಸಂರಕ್ಷಿಸಿದ್ದೇವೆ..., ಕಾದಿದ್ದೇವೆ' ಎಂದು ಇಲಾಖೆಯ ಮೂಲಗಳು ಈ ಮಾತಿಗೆ ಪ್ರತ್ಯುತ್ತರ ಹೇಳಬಹುದು. ಬಿಸಿಲು, ಬೆಂಕಿಯಲ್ಲಿ ಓಡಾಡಿದ ಕೆಲವು ಪ್ರಾಮಾಣಿಕ ಅಧಿಕಾರಿಗಳ, ಗಾರ್ಡ್, ಫಾರೆಸ್ಟರ್, ವಾಚ್‌ಮನ್‌ಗಳ ಕರ್ತವ್ಯ ನಿಷ್ಠೆಯನ್ನು ಮೆಚ್ಚಲೇಬೇಕು.)

ಸಸಿ ಬೆಳೆಸಲು ಸೂಕ್ತ ಸಮಯಕ್ಕೆ ಹಣಕಾಸಿನ ನೆರವು ನೀಡಿ ಸಂರಕ್ಷಣೆಗಾಗಿಯೇ ನೇಮಕವಾದವರನ್ನು ಅರಣ್ಯಾಭಿವೃದ್ಧಿಗಾಗಿ ದುಡಿಸಿಕೊಳ್ಳುವುದನ್ನು ಮರೆತು ಬೆಳೆಸುವುದಕ್ಕಿಂತ ಕಡಿಸುವುದಕ್ಕೆ ಹೆಚ್ಚು ಕಾಲ ನಾವು ಇವರನ್ನು ಬಳಸಿಕೊಂಡಿದ್ದೇವೆ. ಇದು ಅರಣ್ಯ ಜಿಲ್ಲೆಯ ವರ್ಷದ ವೈರುಧ್ಯ. ವೈವಿಧ್ಯಮಯ ಪಶ್ಚಿಮ ಘಟ್ಟದ ಸಂರಕ್ಷಣೆಯಲ್ಲಿನ ವಿವೇಚನಾರಹಿತ ಕ್ರಮಕ್ಕೆ ಒಳ್ಳೆಯ ಉದಾಹರಣೆ. [http://www.westeren\\_ghats.com](http://www.westeren_ghats.com). ವೆಬ್‌ಸೈಟ್ ಆರಂಭಿಸಿದ್ದರೆ ಅರಣ್ಯ ನರ್ಸರಿಗಳ 'ಖಾಲಿ ಸೈಟ್'ನ ತಾಜಾ ಕತೆಗಳು ಅಳುವ ಮಂದಿಗೆ ಅರಿವಿಗೆ ಬರುತ್ತಿತ್ತೇನೋ!?

ದಿನಾಂಕ: ೨೮ ಜೂನ್ ೨೦೦೦.

ವಿಳಾಸ: ಶಿವಾನಂದ ಕಳವೆ. ಅಂಚೆ: ಕಳವೆ. ತಾಲ್ಲೂಕು: ಶಿರಸಿ. ಜಿಲ್ಲೆ: ೫೮೦೪೦೨. ದೂರವಾಣಿ: ೦೮೩೮೩-೨೫೮೦೨.

DFID (UK) Funding for Forestry Projects

January 2000 report.

## Asia: South

### Regional

INCORPORATING LOCAL AND SCIENTIFIC KNOWLEDGE IN THE DEVELOPMENT AND ADAPTATION OF INTERCROPPING PRACTICE FOR SMALLHOLDER RUBBER LANDS

**Implementing Agency**

Department For International Development (RLD)

**Managing Institute**

Department For International Development (RLD)

**Contractor**

University of Wales, Bangor

**Project Code**

R7212  
690-656-005

**Start Date**

01/08/1998

**End Date**

30/07/2001

**Commitment**

£262,726

**Status**

Current

**Type of Funding**

Bilateral - TDR

**Project Background**

The proposed project aims to address the problems associated with the lack of income produced after replanting of rubber on smallholdings. Plantation tree crops, such as rubber, play an important role in income generation for smallholder farmers in the humid and sub-humid tropics. No return on investment is produced, however, during the first five to six years after replanting, when trees are too young to be tapped. This poses significant financial problems since, given the limited land available, smallholders are unable to adopt a replanting cycle as is traditionally practised on estate lands. Intercropping provides the most practicable means available to smallholders for improving income generation on immature plantations.

The needs of both the land-poor and landless could be met from the adoption of intercropping on immature rubber lands through several means; (1) intercropping could replace the income lost from rubber during the first 5-6 years after planting, (2) intercropping would increase land use efficiency in situations where limited land availability is a key factor generating poverty and (3) intercropping could raise the living standards of the land-poor through improved access to land on a contractual basis and greater opportunities for wage labour.

**Project Objectives**

Physiological relationship between plant growth/development and environmental variables (CO<sub>2</sub>, light, wind, temperature and water) understood in target crops and improve cropping strategies developed and promoted.

**Intended Outputs**

An analysis of the agronomic and socio-cultural factors influencing farming practice on smallholder rubber lands.

Key biological processes determining intercrop performance on-farm understood.

Strategies for working with farmers and extension staff to improve cropping practice on immature rubber lands developed.

Recommendations for intercropping that best meet the needs of smallholder rubber growers produced.

## India

INDIA: KRIBHCO INDO-BRITISH RAINFED FARMING PROJECT (WESTERN INDIA) PHASE I

**Implementing Agency**

Department For International Development (DFID)

**Managing Institute**

Krishak Bharati Co-operative Ltd (Kribhco)

**Contractor**

Krishak Bharati Co-operative Ltd (Kribhco)

**Project Code**

149-500-067  
149-070-001  
149-990-005

**Start Date**

01/04/1992

**End Date**

31/03/1999

**Commitment**

£3,804,000

**Status**

Awaiting Confirmation of Completion

**Type of Funding**

Bilateral - TC

**Project Background**

Rainfed farming in India covers about 70% of the gross cropped area and accounts for 40% of total foodgrain production, 75% of oilseeds, 90% of pulses and 70% of

cotton. Foodgrain production has increased in irrigated, high potential areas (e.g. the 'green revolution' areas of Punjab and Haryana), research focused on crops grown in rainfed areas has not been applied and extension approaches have not been appropriate to poor communities in rainfed areas. As a result, yields and output in rainfed areas are virtually static.

Over the next couple of decades, agricultural growth in irrigated areas is expected to level off as the physical limits to irrigation are reached and ceiling yields on some crops are achieved. Because of this, increased and more stable production from rainfed areas will be needed, both to tackle the relative backwardness and poverty of rainfed areas, and to maintain agricultural growth nationally at a rate sufficient to match India's growing population.

The project will benefit from lessons learned in the HFC Rainfed Farming Project in eastern India and work closely with communities over a number of years in order to understand farming system constraints and potential; to offer farmers a 'basket' of different technologies to choose from; and to build on farmers' indigenous knowledge of their local environments. It will also take account of experience gained in successful NGO programmes in the region, such as the Aga Khan Rural Support Programme and the Sadguru Water and Development Trust.

### **Project Objectives**

To improve the long-term livelihoods of poor farmers in a drought-prone region of western India, through a participatory approach to farming systems development (FSD). (1/6th forestry component)

### **Intended Outputs**

**92/93-93/94**

#### **SOCIAL AND COMMUNITY ORGANISATION:**

Participatory Rural Appraisals completed and written up in 6 clusters; production of farming systems and social profiles; annual village workplans developed; M&E system designed; representative village-level institutions established in project clusters and volunteer Village Workers trained.

#### **NATURAL RESOURCES:**

Menu of recommendations appropriate to project area; special research topics identified and institutions for research identified; resource inventory of project area compiled; research units at State Agricultural Universities research centres established and operational.

#### **HUMAN RESOURCE DEVELOPMENT:**

Community organisers, institutional and technical specialists appointed trained and in post; farmers trained and applying knowledge; staff trained in short courses and in UK in post and applying knowledge; national workshops on project approach held throughout project and reports of national workshops produced.

#### **PROJECT MANGEMENT AND M&E:**

Project management office at Dahod established equipped and functioning effectively; M&E cell established.

#### **94/95 onwards:**

Effective participatory planning system in use.

Farmer-managed groups developed and operational.

Appropriate technologies for FSD tested and adopted.

Project learning system developed and operational.

Project learning disseminated.

Strategies for extension of project approaches and benefits developed.

Project Management Unit (PMU) established and operational.

## **WESTERN INDIA RAINFED FARMING PROJECT, PHASE II**

### **Implementing Agency**

Department For International Development (DFID)

### **Managing Institute**

Department For International Development (DFID)

### **Contractor**

Krishak Bharati Co-operative Ltd (Kribhco)  
Indian Farm Forest Development Co-operative (IFFDC)

### **Project Code**

149-094-001  
149-500-079  
149-990-020

### **Start Date**

01/04/1999

### **End Date**

31/03/2006

### **Commitment**

£20,010,000

### **Status**

Current

### **Type of Funding**

Bilateral – TC Bilateral – Financial Aid

### **Project Background**

The Phase 2 project will be located mainly in parts of seven contiguous districts of three states – Dahod and Panchmahals (Gujarat); Jhabua, Dhar and Ratlam (Madhya Pradesh); and Banswara and Chittaurgarh (Rajasthan). The districts contain over 8 million people and are among the poorest in India. They form a compact area, mostly remote. About 80% of the population come from the scheduled tribes.

Increasingly, men and women migrate seasonally to work as labourers, with the elderly and young children staying behind. The area has received only limited government

**Status**

Current

**Type of Funding**

Bilateral – TC

**Project Background**

Most support for the forestry sector in India has been to assist with the implementation of the 1988 National Forest Policy (NFP), that treats forests first as an ecological necessity, second as a source of goods for use by local populations, and only third as a source of wood and other products, for industries and other non-local users. To assist GOI to meet these objectives, the World Bank's strategy since the early 1990s has been to finance projects that support the forest sector as a whole, within selected states, in contrast to earlier support for sub-sectoral programmes, such as social forestry.

Project support for forest management focuses on sustainable management of undegraded natural forests, and restoration of degraded forest through natural regeneration, rather than plantation. In India, this type of forest management is a major change in emphasis, and an important part of the review is to compare forest management based on natural regeneration with planting systems. Improvements in forest management are closely linked to overall institutional development of management processes including planning, administrative decentralisation, and monitoring, and these are examined as part of the review. The projects support the introduction of improved site specific planning, and the review is assessing the way in which this is being undertaken and its impact. The project also provides support for improved technical management of forest resources, including silvicultural practice, and fire and grazing management, and the review will examine the methods used and their impact, linking them to various types of forest. In addition, the development and availability of improved forest technology is being assessed.

**Project Objectives**

To support divisional programme of forestry and natural resource work in India., Nepal and Bangladesh in context of World Bank thematic review of experience in participatory forestry in the region.

**Intended Outputs**

To finalise and disseminate the thematic review of experience and lessons for the past 10 years of support to participatory forestry in the region with a view to improving future programme design and supervision.

To provide assistance in the design supervision and assessment of participatory forestry management approaches supported in Bank financed programmes of the region.

To assist World Bank team charged with developing the global strategy for support to forestry drawing from experience of the south Asia region. To participate in Bank-wide review of its forest policy and implementation.

To assist with identification and modification of appropriate development impact indicators on participatory forest management and design and evaluation of methods to monitor progress against them.

To liaise with DFID India on forest policy strategy and programmes with a view to exploring closer collaboration between DFID and the World Bank. Assist in developing mechanisms for sharing experience between these organisations.

**INDIA: OXFAM WESTERN GHATS JOINT FOREST PLANNING AND MANAGEMENT – SUPPORT****Implementing Agency**

Department For International Development (DFID)

**Managing Institute**

OXFAM

**Project Code**

149-502-028

**Start Date**

01/01/1997

**End Date**

31/03/2000

**Commitment**

£155,000

**Status**

Current

**Type of Funding**

Bilateral – TC

**Project Background**

Experience of social forestry and increasing pressure on Forest Reserves led the Government of India (GoI) to adopt a forest policy in 1988 that Forest Reserves should be managed for ecological conservation and to meet the needs of local people, rather than to supply the needs of industry. Particular attention is to be paid to montane forest. Policy is to maintain two-thirds of hilly areas under trees. GoI issue a circular to State forest departments in June 1990 clarifying the scope for local participation. It encourages agreements with local communities for the development and restoration of degraded areas by providing a share of forest products in return for services provided by the community. It also encourages the involvement of NGOs.

The project, with its emphasis on environmental improvement through participative management, is in line with evolving GoI policy. The Western Ghats forests are the only significant area of montane forest outside the Himalayan foothills. The GoI Ministry of Environment

and Forests have confirmed that they regard these forests as of prime environmental and ecological value.

Since 1993, Oxfam has been working in the Western Ghats with emphasis on forest related development work, through a "parallel" project funded by the Department for International Development (DFID-UK) (MIS code: 149-068-001). Joint Forest Planning and Management (JFPM – close partnership between people and forest department of the Government of Karnataka) is the main instrument through which this project is being implemented.

### **Project Objectives**

Capabilities of local NGOs/CBOs substantially enhanced to actively participate in facilitating people's participation in forest planning and management so as to strengthen their access to and control over these resources.

Representative, well informed and capable Village Forest Committees (VFCs) developed and functioning to facilitate communities to gain access to and control over forest and Common Property Resources (CPR).

High level of participation of women and other weaker sections of society in joint planning and management of forest and common property resources, and sharing of benefits resulting from JFPM process.

Conserve and protect the forests of the Western Ghats while ensuring sustainable benefits to the local people, particularly the disadvantaged sections of society, through people's participation in forest planning and management.

### **Intended Outputs**

Systematic initiatives and inputs from Oxfam resulted in strong and well informed NGOs capable of providing all forms of support to VFCs. NGOs with strong community base and CBOs (Community Based Organisations) are working in most villages covered by JFPM work.

A dynamic and well structured training programme and information provision methodology for all VFCs (particularly those not covered by NGOs) developed and implemented by NGOs and KFD with active support from Oxfam and the MYRADA NGO.

All groups have developed clear strategies for phase-out of funding and non-funding support from Oxfam.

Strong and well represented network of NGOs and CBOs has been established and functioning.

NGO/CBO network attains capacity to completely replace Oxfam by the end of 1998.

By end of 1999, a number of predominantly CBO (VFCs and sangas) networks (at taluka level) come into existence. Need for external funding considerably reduced or unnecessary with much of the resources generated from constituent VFCs and sangas.

The forest dependent communities, particularly women and poorer sections of society gain access to and control over NTFP (Non Timber Forest Products). Collective IGP ventures centring around various NTFPs set up in many locations, with well defined market linkages.

Role of NGOs/CBOs in JFPM process, and development of sustainable income generation venture benefiting poor through NTFP documented and published before end of 1999.

Oxfam implemented strategies to continuously feed NGOs/CBOs/VFCs with lessons learned from its involvement in JFPM and NTFP initiatives in other parts of the country.

Oxfam's involvement in advocacy work on its own and through NGO/CBO network resulted in redefining of JFPM with strong focus on women and other weaker sections of society.

## **INDIA: ADIVASI FOREST PRODUCE PROGRAMME**

### **Implementing Agency**

Department For International Development (PAND)

### **Managing Institute**

Find Your Feet

### **Contractor**

Mavanhalla Youth and Tribal Welfare Association (NYWA)

### **Project Code**

149-680-182

### **Start Date**

01/04/1997

### **End Date**

31/03/2003

### **Commitment**

£135,715

### **Status**

Current

### **Type of Funding**

Bilateral – JFS

### **Project Background**

For many years, tribal communities in India have been marginalised and disenfranchised. They have been forced out of traditional livelihoods based around the forest into irregular and uncertain casual labour. Tribal rights campaigners have been pressing for change for many years. The Indian Government is now gradually beginning to reassess its policy towards indigenous people. It is realising that tribal communities (adivasis), who have lived in harmony with the forest for generations, are the best people to ensure that it is sustainably managed and protected.

The Adivasi Forest Produce Programme is an innovative project which proposes total adivasi control over collection and marketing of forest produce within a large area of

protected forest in Tamil Nadu. The project will provide the investment to enable adivasis to bid for the rights to collect forest produce in the foothills of the Nilgiris. All collection and marketing will be controlled by the adivasis, and all profits will be retained by them. The project will provide adivasis living in extreme poverty with the means to increase their income substantially and permanently.

The Adivasi Forest Produce Programme is environmentally sustainable, making no additional demands on land or scarce water resources in the area. It builds on adivasis' specialist skills in sustainable forest management, and gives them a greater stake in the management and protection of the forest. The programme is innovative and highly likely to succeed. State Forest Department officials will be watching with interest; it is the first time Adivasis and the Forest Department – traditional opponents – have worked in co-operation. The project is the finest of its kind in Tamil Nadu, and will serve as a model of best practice for locally managed, environmentally and economically sustainable forest management.

#### **Project Objectives**

To reduce poverty among the adivasis, specifically creating greater nutrition and improved living conditions.

Improved health.

Empowerment of adivasis.

Conservation of forest environment.

#### **Intended Outputs**

Admin/storage building and drying yard constructed.

Adivasi Forest Produce Society registered.

Society running smoothly and sustainably within 3 years, with contingency fund built up.

Adivasis fully responsible for running the society within 4 years.

Society members trained as effective agents of change.

### **KARNATAKA WATERSHED DEVELOPMENT (PHASE 1)**

#### **Implementing Agency**

Department For International Development (DFID)

#### **Managing Institute**

Department For International Development (DFID)

#### **Contractor**

Karnataka Watershed Development Society (KWDS)

#### **Project Code**

149-500-073

149-085-001

149-990-018

#### **Start Date**

01/10/1996

#### **End Date**

31/03/2002

#### **Commitment**

£15,240,000

#### **Status**

Current

#### **Type of Funding**

Bilateral – TC

#### **Project Background**

About 70% of the population in the drought-prone areas covered by the project are below the poverty line. The bulk of the population in the project area relies on renewable natural resources for their livelihood. The project will reduce poverty by change in the institutions of government which support or provide services for watershed development, by modifications to the ways primary stakeholders organise themselves and their relationship to the wider social and political economy, and by changes in access and productivity of the resource base to support a more diversified livelihood system. The project involves work in three watersheds, each in a different drought-prone district, over a pilot phase of 5.5 years. If evaluation towards the end of this period is positive, DFID will appraise a project to fund development along the same lines to more watersheds in the same three districts, over a period of up to seven more years.

The project supports Government of India (GoI) development objectives, stated in the eighth five-year plan, of developing farming systems in rainfed areas; alleviating poverty; and enhancing the role of women in rural development. Environmental degradation is also a serious problem in the selected watersheds, and the project will contribute to government's plans to restore environmental conditions in degraded rural areas. Scheduled Castes and Scheduled Tribes are a substantial proportion of the population of these project areas. Improvement of their economic and social condition is a priority for both GoI and GoK. In recent years, interest and activity in watersheds as the mode for developing rainfed areas has grown, with increased budget allocations, research attention, and the publication of new Guidelines by the two GoI Ministries concerned. In promoting a shift in decision making to the local level, the project is in line with the 73rd Constitutional Amendment.

Several other donors have supported watershed development in Karnataka (World Bank, SDC, Danish International Development Assistance (DANIDA), KfW), assisted by the State Watershed Development Programme, a specialised agency created to implement donor and GoK-funded watershed development schemes. There are two major GoI watershed projects currently under implementation, as well as smaller donor funded projects. The DFID project places a greater emphasis on community empowerment and involving NGOs than the GoI projects. It builds on experience gained in donor

funded programmes in enhancing community participation; soil and water conservation; and development of common property resources (CPR) for timber and non-timber products. The addition of non-land based activities (NLBA) is unique to the project, and recognises that pressure on land is such that it cannot meet the livelihood needs of all the poor.

### **Project Objectives**

To devise a replicable approach and tested models for development in three watersheds which empower men and women (including marginalised groups) to demand better services and to gain access to expanded and diversified livelihoods, and enable secondary stakeholders to respond to their needs.

### **Intended Outputs**

Project management, project support and community institutions in place.

Approach to participatory planning and implementation developed, systematised, and operational at microwatershed (MWS) level.

Measures for watershed resources development implemented and managed by local communities.

Non-land based activities (NLBA) initiated that generate benefits which meet the needs of below poverty men and women.

Training capability of project established.

Phase I models evaluated and strategy for Phase II project formulated.

## **SEVUNGAMPATTI SUSTAINABLE SILVICULTURE PROJECT**

### **Implementing Agency**

Department For International Development (PAND)

### **Managing Institute**

International Childcare Trust

### **Contractor**

International Childcare Trust

### **Project Code**

149-680-169

### **Start Date**

01/04/1996

### **End Date**

31/03/2001

### **Commitment**

£59,280

### **Status**

Current

### **Type of Funding**

Bilateral - JFS

### **Project Background**

International Childcare Trust became involved with tree planting in Tamil Nadu South India in 1989. In collaboration with the Palni Hills Conservation Council several hundred acres of land owned by small farmers around the villages of Combaipatti and Viruvidu was planted with trees. This produced economic and environmental benefits. Farmers' incomes have increased and land has been changed from arid wasteland to productive woodland.

More recently ICT's efforts have concentrated around the village of Silvarpatti, Anna District, Tamil Nadu. It is here that a new hospital has been constructed by ICT, which supports a whole range of primary healthcare, outreach work and education.

Much of the land here is arid and marginal, supporting one crop per annum. Many farmers have been tempted to sell their lands to more affluent farmers and corporations who have the money and the expertise to turn their fields back into economically viable concerns. It is ICT's aim to halt this trend and enable the families of small farmers to maintain their traditional lifestyle in a sustainable manner. This is being done by mixed tree plantations which provide many economically useful products such as firewood, fodder, fruits, seeds, and timber. Firewood and fodder are particularly important for poor rural peoples and are rarely provided for by the big monoculture plantations. By carefully selecting species the day to day needs of the villagers are provided for plus cash, available by the felling of high value timber, for contingencies such as education, health and marriage.

### **Project Objectives**

To redress ecological degradation, halt soil erosion, increase tree cover and protect and utilise available water resources.

To promote silviculture as an economically sustainable, self supporting activity for rural communities.

To support and enhance traditional lifestyles within rural communities.

### **Intended Outputs**

A tree nursery has been established on leased land in Sevungampatti: this will propagate 70,000 saplings yearly for a period of five years, consisting of 19 different species.

The tree nursery will also grow an extra 20,000 mixed species for commercial sale.

The nursery will be staffed by one nursery nan and two assistants.

High quality seed will be collected from mature mother trees and seed banks.

Each acre of land will be ploughed, contour banded and

planted with 400 mixed tree species. Each year 175 acres will be planted. A borewell will be sunk and a cart and two bullocks purchased for watering during dry seasons.

Low cost accommodation will be constructed to house the bullocks.

Participating farmers will attend training programmes. These will provide practical information on agroforestry techniques and benefits. Exposure trips to already established plantations will be organised.

Villagers will participate in regular informal educational programmes focusing on tree planting and associated environmental issues.

Project staff will attend training programmes to update their knowledge skills.

## WATER USE OF EUCALYPTS

### Implementing Agency

Department For International Development (RLD)

### Managing Institute

Department For International Development (RLD)

### Contractor

Institute of Hydrology (IH)

### Project Code

R????  
no MIS code

### Start Date

01/01/1987

### End Date

31/12/2000

### Commitment

£389,300

### Status

Current

### Type of Funding

Bilateral – TDR

### Project Background

In order to alleviate the growing demand for fuelwood and industrial timber over large areas of India, plantations of a fast-growing local Eucalyptus (Mysore) hybrid have been established as part of community forestry programmes. Although this has greatly increased wood supplies there is rising public concern over the alleged harmful effects that the trees may have on soil water and site productivity. Similar fears have been expressed in other countries, but there have been no long-term studies carried out on sites similar to those found in India. A better understanding is therefore urgently needed in order to improve the efficiency of site selection for tree planting, and provide information to avoid detrimental influences on long-term site productivity for both tree and agricultural crops.

### Project Objectives

To determine water use of the principle tree species and annual crops in relation to climate, soil and stand density, and to construct a general water-use model.

## FOREST TRAINING PROJECT (DESIGN PHASE)

### Implementing Agency

Department For International Development (DFIDI)

### Managing Institute

Department For International Development (DFIDI)

### Project Code

149-502-032

### Start Date

01/11/1998

### End Date

31/03/2000

### Commitment

£50,000

### Status

Current

### Type of Funding

Bilateral – TC

### Project Background

There is a clear link within India between forest management and sustainable rural livelihoods. Some 100 million forest dwellers and 275 million other people depend on forests for their survival. Forest products play an important role in reducing the vulnerability of the poor, helping them sustain livelihoods and offer resource poor households an opportunity to move from coping to growth.

The internationally adopted concept of sustainable forest management (SFM) aims to reverse the current decline of forest and release the potential of forests to provide sustained local, national and global benefits. SFM demands substantial change within forest sector institutions, in particular the role and way of working of public sector agencies. The GoI 1988 National Forestry Policy (NFP) provides a policy framework consistent with SFM and accords priority to environmental stability and meeting the subsistence requirements of local people over industrial use and generating government revenue.

Updated professional training for the all India Forest Service (IFS) and the State Forest Service (SFS) is an urgent requirement for effective interpretation and implementation of the NFP. The challenge is to equip new and serving staff with the skills, knowledge and attitude needed for successful joint forest management and to balance the often competing social, economic and environmental objectives of local and distant users.

### **Project Objectives**

To develop the capacity of the Indira Ghandi National Forest Academy (IGNFA) and the state forest service colleges to provide quality training to IFS and SFS officers in line with the human resource requirements for effective implementation of the 1988 National Forest policy.

### **Intended Outputs**

IGNFA and SFS Colleges at Dehra Dun and Coimbatore, operating within a competence based framework for IFS and SFS in-service training.

Capacity of IGNFA staff and productivity of the institution as a training provider, service centre to MoEF re IFS in-service training co-ordination and apex institution for network of IFS/SFS training institutes strengthened.

Adequate infrastructure at IGNFA site to accommodate the formative period of a Staff College function within IGNFA.

Capacity analysis of State Forest Service Training Institutes (ACFs and Rangers) completed.

Proposed framework for a national network of centrally and State funded forestry training institutes developed.

## **NATURAL RESOURCES MANAGEMENT IN THE WESTERN HIMALAYAS**

### **Implementing Agency**

Department For International Development (DFID)

### **Managing Institute**

Society for Promotion of Wastelands Development

### **Contractor**

Society for Promotion of Wastelands Development

### **Project Code**

149-506-013

### **Start Date**

01/09/1998

### **End Date**

30/09/2003

### **Commitment**

£12,738,000

### **Status**

Current

### **Type of Funding**

Bilateral - TC

### **Project Background**

After the 1962 Indo-China war, the Government emphasised road construction in the border Himalayan districts of Uttar Pradesh (UP), which led to the setting up of Border Roads Organisation (BRO), Directorate General of Border Roads (DGBR) and Indo-Tibetan Border Police (ITBP). Of these organisations, DGBR has a regional Office at Dania and is a major employer of local poor in seasonal road maintenance.

The proximity to the road, and the better education amongst the upper classes in the area, led to a start in migration of men-folk from the area. Today, a number of families have persons employed in the Armed Forces and other government departments.

The influence of migration, better income, and proximity to the market, has also resulted in a widespread use of alcohol in the area. So much so, that recently some school-children were found to be drunk in class. This situation led the local women in the area to take up an agitation, in 1995, against the District Administration, for issuing licensed liquor shops in the area. After a month-long agitation, the DM agreed to rescind the licence. The leadership for this agitation was provided by the KMUM team working in the area.

Physiographically, the project area falls in an altitudinal zone of 3000 to 4000 ft a.m.s.l. and contains large patches of pine forests. Resin tapping (both legal and illegal) is a major industry in the area. The distribution of these forests, however, is highly inequitable between different villages. While some villages have over 500 ha of forest, others have none at all. This unequal access to forest resources has created a situation where villagers, unable to meet their requirements of fuelwood and fodder, resort to stealing these from other villages, causing much conflict, unpleasantness and sometimes long-drawn legal battles between the villages. Civil- Soyam forests in the area are the most degraded and, although most Mahila Mangal Dals in the area have shown interest in protection and plantation of these, only a few have actually been able to take this up.

Another trend that has been observed in the area in recent years is that of encroachment into forest lands near the road. This was reportedly initiated by the Gram Panchayat Pradhan of Manoli village, after which almost all households in the village encroached into their Van Panchayat pine forest. The motive of this encroachment is reportedly to gain access to lands near the roadside, in anticipation of an increase in land prices. The good Van Panchayat forest is reported to have attracted much illegal extraction and trade of resin. Both resin and alcohol mafia are operational in the area.

Agricultural productivity, once reported to be quite high, is today poor. The cropping pattern generally followed is that of Paddy-wheat-madua-fallow. Agriculture is almost entirely rainfed, except for one newly started Hydram scheme in one of the villages, and a few Gools in some villages.

The rainfed nature of the agriculture led to the arrival of an Integrated Watershed Development project in the Panar watershed in the area (with funding by EEC). The Directorate of Watershed Management, Dehradun, implemented this project in the area. Under the project, chaff cutters, pressure cookers, improved hybrid seeds, Minor irrigation tanks, Gools were distributed/constructed. Free distribution resulted in a

situation where those not really interested in chaff cutters and pressure cookers sold these off for a pittance. Also, the overall emphasis on meeting targets created an atmosphere where the already dependant villagers have now begun to look for free provision of benefits almost as their right.

### **Project Objectives**

To support ongoing and forthcoming work on natural resources management carried out by the Society for Promotion of Wastelands Development in the Western Himalayan Region.

### **Intended Outputs**

At least four demonstration projects, one in each of the four major montane physiographic zones of the Himalayas.

Extension of learnings from these projects to NGOs and policy makers, and incorporation of these learnings in contemporary development work in the Western Himalayas.

Energy planning in the four projects (above) and setting up of two microhydel-based agro-industrial projects in the Western Himalayas.

Organisation of three regional consultations of government departments, NGOs, farmers, women's groups, etc. on the issues of watershed development, joint forest management, and water harvesting technologies in the Western Himalayas. Publication of the proceedings, and dissemination of the same to a wide cross-section in the Western Himalayas and among policy planners for the Himalayas.

Organisation and publication of at least 18 lecture-debates on Development Policies for Mountain Development.

Training of at least 40 NGOs in 10 technologies of natural resource management in the Western Himalayas.

Establishment of a mechanism for exchange of skills and experience within NGOs in the Western Himalayas that will be independent of SPWD.

Significant documentation and interventions at policy level both in UP Himalayas and in HP, in various aspects related to mountain development.

**PROSOPIS JULIFLORA AND RELATED ARBOREAL SPECIES: A MONOGRAPH, EXTENSION MANUAL AND DATABASE.**

#### **Implementing Agency**

Department For International Development (RLD)

#### **Managing Institute**

Department For International Development (RLD)

#### **Contractor**

Henry Doubleday Research Association (HDRA)

#### **Project Code**

R7295  
583-656-003  
781-644-001

#### **Start Date**

01/08/1998

#### **End Date**

06/03/2000

#### **Commitment**

£125,025

#### **Status**

Current

#### **Type of Funding**

Bilateral - TDR

### **Project Background**

Prosopis tree species form a major component in dry forests and savannahs in the Americas, and introductions into Africa and Asia have now made Prosopis species, principally *P.juliflora*, one of the most widespread trees in the arid and semi-arid zones of the world. Random introductions of poorly documented germplasm into Africa and Asia, coupled with little transference of the technologies whereby it is utilised commercially in its native range, have led to the under-utilisation of this forest resource.

Thorny Prosopis shrubs, widespread in Africa and India, came from the introduction of inferior germplasm, and has led to a poor appreciation of the genus. Research trials from several continents have identified superior material in terms of growth, pod production, erectness and thornlessness, in a range of rainfall and salinity regimes. There is a need for the dissemination of information concerning this material. In some regions, Prosopis has spread from the low rainfall zones in which it was planted, invading water courses, irrigated agricultural land, and adjacent higher rainfall areas. The need for information concerning the relative invasiveness of species, reproductive biology and methods for controlling the spread, or eradication has been strongly demanded by many organisations.

Plantations and natural forests of Prosopis provide regional marketable outputs, such as timber and charcoal in the USA, honey in Mexico, animal feed in Brazil, gums, fodder and firewood in north-eastern India, timber, charcoal and human foods in South America, and firewood in West Africa. Prosopis species are unusual in their importance, both as a vital fuel resource for some of the poorest and most disadvantaged rural and peri-urban inhabitants in India, and as economically important sources of timber and animal feeds in South America. The different experiences of these disparate economic activities need to be evaluated and disseminated, to develop the potential of diversified output from Prosopis forests in plantations in the dry zones of the world.

### **Project Objectives**

Collation and dissemination of the present state of knowledge of *Prosopis juliflora* and related arboreal species as a monograph and database. Production and dissemination of a technical manual, appropriate to the Indian context. The objectives of the outputs are to facilitate an increase in productivity, utilisation and diversification and commercialisation of *Prosopis* products.

### **Intended Outputs**

Monograph on *Prosopis juliflora* and related arboreal species.

Technical manual for India on management of *Prosopis*.

Database of *Prosopis* literature.

## **INDIA: WESTERN GHATS FORESTRY PROJECT**

### **Implementing Agency**

Department For International Development (DFID)

### **Managing Institute**

Karnataka Forestry Department

### **Project Code**

149-068-001

149-502-010

149-990-007

### **Start Date**

01/04/1992

### **End Date**

31/03/2000

### **Commitment**

£23,294,000

### **Status**

Current

### **Type of Funding**

Bilateral - TC

### **Project Background**

The Western Ghats is a range of high hills that run along the West Coast of India.

Experience of social forestry and increasing pressure on Forest Reserve led the Government of India (GoI) to adopt a forest policy in 1988 that Forest Reserve should be managed for ecological conservation and to meet the needs of local people, rather than to supply the need of industry. Particular attention is to be paid to montaine forest. Policy is to maintain two thirds of hilly areas under trees. GoI issued a circular to state forest departments in June 1990 clarifying the scope for local participation. It encourages agreements with local communities, through the Joint Forest Management Scheme, for the development and restoration of degraded areas by providing a share of forest products in return for services provided by the community. It also encourages the involvement of NGOs.

The project within this emphasis on conservation and protection of the biodiversity of the Western Ghats forest, whilst maintaining sustainable productivity through participative management, is in line with evolving GoI policy. The Western Ghats forests are the only significant area of montaine forest outside the Himalayan foothills. The GoI Ministry of Environment and Forests has confirmed they regard these forests as of prime environmental and ecological value.

The Mid Term Review in 1995 re-affirmed the central institutional development focus of the Project. Recognition of the key role that the re-orientation of KFD at both strategic Headquarters and operational Circle levels, in line with the demands of the policy environment, will have on the achievement of the project longer term goal.

### **Project Objectives**

To enhance the capacity of the Karnataka Forest Department (KFD) to develop, test and implement better systems for sustainable forest management through devolved decision making and effectively involving all stakeholders in the process. The Project will include the introduction of the Joint Forest Planning and Management (JFPM) Scheme and the development of research and training as service functions to field operations.

### **Intended Outputs**

Understanding of the dynamics of introducing JFPM on the farming systems of the Ghats and the extent and condition of the natural forest.

Process of institutional change in KFD started based on demonstrations of participatory approaches to forest planning and management.

Establishment of linkages between KFD and other major stakeholders.

Supportive policy and legal environment for JFPM established.

Status of poor people, and particularly women, tribals, and other disadvantaged groups, whose livelihoods currently derive, in whole or in part, from the Western Ghats forests, improved.

Loss of forest cover and resources minimised and sustainable services the forests provide (both to humans and the ecology) maintained.

## AGROFORESTRY PROJECT

**Implementing Agency**

Department For International Development (PAND)

**Managing Institute**

Plan International

**Project Code**

149-680-205

**Start Date**

01/04/1999

**End Date**

31/03/2004

**Commitment**

£220,992

**Status**

Current

**Type of Funding**

Bilateral - JFS

**Project Code**

748-620-903

**Start Date**

16/03/1998

**End Date**

01/01/2001

**Commitment**

£106,860

**Status**

Current

**Type of Funding**

Bilateral - TC

**Project Background**

The project is based in three blocks of Gajapati District, with a target population of 40,000. Degradation of forests and basic survival resources have caused over-exploitation of shifting cultivation. Continuous cultivation has resulted in reduced yields, which are inadequate to meet increased food and cash needs.

The implementing agency, People's Rural Education Movement (PREM), has been working in the area since 1980. It is a major NGO federation consisting of a relatively small number of professionals who support 40 local NGOs and CBOs throughout Orissa and Andhra Pradesh..

**Project Objectives**

To increase and diversify agricultural production and to increase the capacity of the population to manage their resources sustainably, in order to reduce deforestation.

This will involve increasing knowledge of sustainable farming methods, and developing and regenerating resources (land, water, soil, vegetation) and bringing them under more productive and sustainable use.

## COMPARATIVE STUDY OF SILVICULTURE IN THE WORLD BANK SUPPORTED FORESTRY PROGRAMME.

**Implementing Agency**

Department For International Development (RLD)

**Managing Institute**

Department For International Development (RLD)

**Contractor**

World Bank

**Project Background**

International Development Association (IDA) support to the forest sector in India aims to assist with the implementation of the 1988 National Forest Policy (NFP) that treats forests first as an ecological necessity; second as a source of goods for use by local populations; and only third as a source of wood and other products for industries and other non-local users. The policy envisages that most industrial supplies will be derived from private sector farm and other forestry. IDA support addresses forest resource management in an integrated fashion, through policy and institutional reforms, participatory resource management, technology improvement and the mainstreaming of biodiversity conservation concerns into sectoral programmes, both within protected areas and outside them.

Total current Bank lending for the sector amounts to about US\$500 million, with approximately \$300 million in the pipeline. Four state-wide forestry projects are effective, in West Bengal, Maharashtra, Andhra Pradesh and Madhya Pradesh. The Uttar Pradesh Project has been approved by the Board, and will be effective early in 1998, whilst one other project in Kerala has been appraised and should go to the Board before June 1998. There is, in addition, a national forestry research project (FREEP) providing technological support to the sector through funding research, whilst preparation of a proposed National Forest Sector Project is about to start.

The Bank is increasingly emphasising thematic supervision, that is, examining issues related to particular project objectives that are common to the whole portfolio of projects, and drawing together the lessons to be learned. The most important initiative so far taken is a thematic review of participatory resource management in projects in the South Asia Region. There is a need for similar reviews of forest management practices in all Bank-supported forestry projects in India.

### Project Objectives

To recruit a forest management specialist to support the World Bank Forestry Programme in India.

To investigate the institutional blockages and opportunities for the development of forest management.

### Intended Outputs

Participate in the supervision of World Bank assisted forestry project in India as an integral part of World Bank supervision missions, responsible to the Mission Leader and with terms of reference as approved by the Bank.

Examine the main silvicultural practices in use in the six states with Bank-assisted forestry projects focusing on management practices in:

- *Relatively undisturbed natural forest managed by the State Forest Departments (SFD).*
- *Degraded forests under SFD management or in which Joint Forest Management (JFM) arrangements are being implemented.*
- *Plantations managed by SFD and Forest Development Corporations.*
- *Private and farm forestry plantations.*
- *Community forests on revenue land.*

Describe the silvicultural practices in terms of:

- *Species, in relation to their suitability for sites and the demands of users for multi-user species.*
- *Planting, early maintenance, pruning and harvesting techniques.*
- *Forest floor management, including soil and water conservation measures, and fire and grazing management.*
- *Forest protection measures.*

Compare and contrast management practices in the six states, and identify technical constraints and best practices in existing forest management.

As far as possible, compare forest management based on natural regeneration and programmes involving significant planting and plantation establishment.

Assess the impact of improved silvicultural practices, in particular, collect data on survival rates.

Evaluate the adequacy of indicators and monitoring arrangements to measure the impact of forest management practice, in particular survival surveys.

Review the preparation of Forest Working Plans and assess their relevance to forest management in the field.

Assess the impact of non-technical constraints on forest management including, amongst others: staff skills, transfers and incentives; community skills; and timeliness of fund releases and mechanisms for payment for forest works.

Recommend measures to overcome identified technical and administrative constraints, to extend best practices to states as appropriate, and to introduce improved monitoring.

Prepare a report to the World Bank on each visit summarising findings and recommendations for improved forest management, paying particular attention to issues common to all the states visited.

Submit a copy of each report to DFID under cover of a letter highlighting points of particular interest to DFID.

## Nepal

### NEPAL-UK COMMUNITY FORESTRY PROJECT (NUKCFP)

#### Implementing Agency

Department For International Development (DFIDN)

#### Project Code

167-502-010  
167-018-001

#### Start Date

16/07/1993

#### End Date

31/07/2000

#### Commitment

£6,610,000

#### Status

Current

#### Type of Funding

Bilateral – TC Bilateral – Financial Aid

### Project Background

Hill forest is a key resource in the Nepali economy, providing doffer, timber and fuelwood. Its degradation has long been a concern and DFID has supported forestry activities in Nepal since 1979. Over the last fifteen years community forestry has become recognised by HMGN as the major means of achieving sustainable forest management. In this they have been supported by a number of bilateral donors (Australia, Switzerland, US) and multilateral agencies (World Bank and Asian Development Bank (ADB)). The multilateral donors have concentrated on budgetary support while the bilateral donors have provided substantial technical support from which much of the development of community forestry thinking has flowed. DFID has also contributed to

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**WESTERN GHATS FORESTRY AND ENVIRONMENTAL PROJECT**

**A SUMMARY OF THE BASIC FEATURES**

This 6 year project began in April 1991 and is being implemented by Karnataka Forest Department. It is funded by the Overseas Development Administration (ODA) of the United Kingdom and is the outcome of a planning process that began in July 1988. This is a summary of the final Project Document known as "The White Book".

**I. PROJECT OBJECTIVES**

The board project objectives are stated to be:

1. **ECOLOGICAL:** "To maintain the ecological balance and the environmental stability of the Western Ghats, to preserve their unique flora and fauna and to increase understanding of them".
2. **ENVIRONMENTAL:** "To rehabilitate and protect the major environmental resources represented by the Western Ghats".
3. **SOCIAL:** "To assure the sustainability of the living standards of those people whose livelihoods currently derive in whole or in part, from the forest".
4. **ECONOMIC:** "To assure the sustained yield of all categories of produce proper to the natural forest, so as to secure sound economic welfare for future generations".

**II. PROJECT STRATEGY**

These objectives will be achieved by a strategy of

1. "Assisting institutional development in KFD".
2. "Ensuring poor people, women, tribals, and other disadvantaged groups who are substantially dependent on the forests are not worse, and preferably better off".
3. "Minimising further loss of forest cover and resources, and the service they provide".
4. "Increasing understanding of the Western Ghats eco-system".

**III. PROJECT PROCESSES**

The project is designed to increase the capacity for sustainable management and use of the forest in the face of numerous pressures. In order to resolve conflicts between different demands on resources

a multi-disciplinary approach is needed. Therefore:

"Local people, who are responsible for much of the biotic pressure on the forest, must play a fundamental role in the planning, management and protection of the forest".

The main instrument for achieving sustainability is Joint Forest Planning and Management (JFPM). JFPM is defined as:

1. JOINT PLANNING: a consultative process where KFD, local people and other forest users jointly discuss the condition of a specific area of forest and the scope for it to meet their own needs.
2. JOINT MANAGEMENT: In certain areas described under 'Zonation', the planning process will decide upon Joint Management. In these cases forest management and benefits arising from the forest will be divided between KFD and forest users.

A Government Order providing a legal framework for JFPM was promulgated on 12/04/93.

"The progress of JFPM depends on the institutional changes in KFD which the project introduces, and which will change KFD's relations with people who depend on the forest".

#### IV. PROJECT AREA (See Annex-2)

The project will cover 2 Circles in the Western Ghats, the first in which work is already proceeding, is Uttara Kannada Circle. The selection of the second circle has yet to be announced.

#### V. ZONATION

Forest Land will be defined into 5 zones as shown in the table below. The zonation process will have several stages:

1. Preparation of range and block profiles by KFD. "This will enable preliminary, rough zones to be identified, and as a result priority areas for JFPM will be decided".
2. Identification of village groups, community institutions and NGOs who may facilitate formation of user groups, "with care to ensure that the disadvantaged are not excluded". The JFPM teams "Will consult with and jointly develop micro-plans" with these user groups.
3. "The consolidation of micro-plans resulting from JFPM with existing working or other plans will produce an overall zonation of each range and consequently of the Circle".

FIVE MANAGEMENT ZONES (SEE ANNEX FOR MORE DETAIL)

SITE CHARACTERISTICS	SPECIFIC MANAGEMENT OBJECTIVES		
	ECOLOGICAL	ECONOMIC	LOCAL NEEDS
<u>ECOLOGICALLY IMPORTANT</u>	<u>I Core Zone</u>		
<u>MAIN FOREST</u>	II Main Zone Without Dwellers	)	Gap plantation 27,500
<u>MAIN FOREST WITH POCKETS OF DWELLINGS</u>	III Main Zone with Dwellers	)	
<u>EDGE OF FOREST RESERVE NEAR SETTLEMENTS</u>		IV Boundary Zone	) 8,500
<u>OUTSIDE FOREST AND NEAR SETTLEMENTS</u>		V Common Revenue Land	) 6,000

Ecologically important areas are not restricted to uninhabited and unexploited areas and Management Contracts will have to be agreed with the communities affected.

**VI. MICRO-PLANNING & MANAGEMENT CONTRACTS**

"Direct consultation and discussion with user and community groups" will result in clearly defined micro-plans:

"The plans will involve not just planting proposals but address all land use and access issues within the Reserve Forest area... The approach will be community based and take a holistic and integrated view of the local socio-economic situation and its relationship to the forest".

As a result of micro-planning, Management Contracts will be drawn up between KFD and the user group concerned. These will give villagers a legal stake in the assets and avoid any weakening of KFD ownership of the land. The Contracts will be registered with the Panchayat authorities and will specify:

1. Composition and nature of the user group
2. Key services or investments to be jointly managed
3. Rights over produce and its distribution
4. The organisation and reward of labour
5. Day to day management responsibilities
6. Provision of technical advice, extension and other inputs
7. Performance monitoring and review

While areas under Joint Management will be restricted:

"Joint planning and consultation is to become a feature of all project activity which impacts on local communities, including any change of access/use that might arise".

#### **VIII. NON-GOVERNMENTAL ORGANISATIONS (NGOs)**

"NGOs can play an important role in assisting the JFPM process".  
Namely:

1. In the identification and formation of user groups
2. In provision of information to these groups in order for them to better be able to plan with KFD.

ODA has funded a Support Project through Oxfam... "Although a separate project, it is anticipated that information sharing and liasion would be possible between all involved".

#### **IX. MONITORING**

1. INTERNAL: KFD monitoring will consist of physical monitoring as well as community and institutional monitoring which will "involve the setting up of mechanisms (workshops and meetings) for feedback from both staff and community user groups" as well as the establishment of project milestones.

2. EXTERNAL: A series of committees at different levels will monitor progress and provide policy advice:

- a. CONSULTATIVE COMMITTEE: At Divisional Level, chaired by the DCF and consisting of local forest users.
- b. ADVISORY COMMITTEE: At Circle Level, meeting quarterly, chaired by the CF, consisting of other Government Departments, the Zilla Parishad, NGOs, Scientific Institutions, forest users and the ODA.
- c. STEERING COMMITTEE: At State Level, "With full and final authority to approve recommendation arising from project reviews and agree necessary action", chaired by the Development Commissioner, consisting of KFD, other Government Departments, ODA, and any other organisation deemed appropriate by the DC.

#### **X. PLANTING OPERATIONS**

In Uttara Kanbada Circle a total of 42,000 hectares will be planted under various models during the project. In addition 19,200 hectares will be planted in the second Circle. The planting areas under each model in Uttara Kannada area

1. GAP & ENRICHMENT PLANTATIONS: In Zones II/III will cover 27,500 hectares (66%).
2. BAMBOO PLANTATIONS: For artisans will total 6,000 hectares (14%).

3. MULTI-PURPOSE PLANTATIONS: Four models of with 50% firewood, fodder, green manure and NTEP species respectively "aiming to meet local needs", will amount to 8,500 hectares (20%).

#### XI. PROJECT ORGANISATION

The following institutional changes will be added to the normal structure of Territorial officers:

1. A PROJECT DIRECTION: Of CCF rank answerable to the PCCF.
2. THE PROJECT MONITORING UNIT (PMU) Answerable to the Project Director, consisting of:
  - Project Co-ordinator CF
  - Planner Economist DCF
  - Monitoring DCF
  - JFPM & Training DCF
3. THE PROJECT MONITORING CELL (PMC): Answerable to the Circle Conservator consisting of:
  - Planner/Economist DCF
  - JFPM DCF
  - Existing Working Plans DCF
4. JFPM TEAMS: At Divisional Level, and answerable to the Territorial DFO there will be an ACF for JFPM who will manage the 3-5 JFPM teams working underneath him. Each team will have one RFO Team Leader with prime responsibility for JFPM and Management Agreements and one RFO Groups with responsibility for the identification and formation of community/user groups.

A total of 757 extra staff will be employed for the Project, an increment of 6% on present staffing levels. Of these 12 are of DCF rank or above, and 103 are of RFO rank to ACF rank (on average an 11% increment).

#### XII. TRAINING:

1. MSC TRAINING: Staff of the PMU and the PMC will be trained at MSC level in Social and Economic Planning or Management of Training and Extension.
2. JFPM ORIENTATION: Senior Officers, 35 of the rank DCF or above, will receive 2 weeks training in India.
3. UK SHORT COURSES: ACFs for JFPM will receive training in the UK on short 3 month courses on participatory planning extension, socio-economic aspects of "needs" forestry etc.
4. MYRADA TRAINING: JFPM teams will receive training from Myrada Participatory Rural Appraisal (PRA) and community organisation.

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In practice postings have been made at DCF rank.

Throughout the project a total of 120 officers will do short courses, 45 officers will do MSc's and 12 will do PhD's in the UK.

**XIII. SUPPORT ACTIVITIES:**

1. **MANAGEMENT INFORMATION SYSTEM (MIS):** To improve the flow of information a computerised MIS will be developed for reporting; monitoring and planning in KFD.
2. **GEOGRAPHICAL INFORMATION SYSTEM (GIS):** Consisting of hardware and software which will enable the more detailed compilation of maps from remote sensing imagery and aerial photography. This system will be installed and staff trained appropriately. Over the project period the total recurrent costs for the GIS will be Rs. 99 lakh and the total capital costs will be Rs. 84 lakh.
3. **FORESTRY RESEARCH AND TRAINING INSTITUTE (FORTI):** FORTI will be an umbrella organisation to manage research and training and will replace the existing Research Wing Project funds have been demarcated for research on ecology hydrology, forestry and socio-economics. Over the project period total recurrent costs of FORTI will be Rs. 106 lakh and the capital costs will be Rs. 119 lakh.

**XIV COSTS:**

The local costs are Rs. 69 crores of which 71% is spent on field operations, 21% on "process and organisation" and 8% on research.

The sterling costs are 64 million of which 1% is spent on equipment 43% on training and 56% on consultancy.

The overall project costs converted, into rupees are Rs. 84 crores or 23 million, of which 58% will be spent on field operations, 27% on "process and organisation" and 15% on research.

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Includes FORTI, GIS and Training

ANNEX - 1 ; ZONING

1) Management of Zone I :

It is thought that 'the bulk of zone I is uninhabited' and the project activities can be introduced Speedily once the inputs are available. The management plans for zone I will be drawn up centrally (i.e., in Bangalore). The main activities in this zone will be (a) Forest Protection (b) Active Habitat Manipulation (c) Ecological information management (d) Establishment of Herbarium (e) Establishment of Invertebrate collection.

(There is no clear description in this section about the people who may be living in this zone, especially tribals, what the KFD will do to meet their needs, involve them in protection and maintenance etc. Since the plans are going to be drawn up centrally, it is quite possible that these peoples existence may not be recognised and nothing may be planned for them. In such a situation continuing conflict between them and the KFD is likely).

ii) Management of Zone II:

Planning for Zone II will take into consideration ecological and economic data, socio-economic analysis regarding linkages between people, artisans and industry and economic projections of demand on the basis of this annual working schedules will be prepared and approved jointly by the planning and monitoring all at the circle and planning and monitoring unit at the headquarters. There is no role for the people in the management of zone II.

Two types of planting Models have been envisaged in Zone II.

- a) Enrichment and gap filling model aimed at re-establishment of the Capital value of the forest estate, as a source of future revenue.
- b) Plantation for artisans and small scale industry, primarily bamboo, cane and sandalwood.

Other activities will be

- c) Survey and demarcation work
- d) Fire protection.
- e) Thinning and logging on a 30 year cycle, using efficient logging practices to avoid damage to the forests.
- f) Seedling production,
- g) Grazing protection.

iii) Management of Zone III:

The primary objectives and models are as those mentioned for those in Zone II. But where the special interests of forest dwellers so require, exceptions will be made. In such cases, JFPM process as described for Zone IV will be followed.

IV) Management of Zones IV ,V :

In both these zones Joint Forest Planning and Management processes will be followed. When Joint Forest Management plant is to be there will be agreements will the local people and the conditions of such agreements will apply.

## WESTERN GHATS FORESTRY PROJECT

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### Introduction

According to the final document of the Western Ghats Forestry Project, Karnataka, the project was "initiated by a request from the Government of Karnataka to the Overseas Development Administration (ODA) of the United Kingdom to fund a forestry project in the Western Ghats area. [ODA FPP i]

If the ODA and the KFD are sincere in their desire to implement the stated aims, then their plans are inappropriate, their scientific and sociological basis questionable. On the other hand, if "the economic welfare" refers to distant industrial and political elites not to the local people, then the project is eminently suited as it provides for the efficient means for neutralising opposition by local peoples to further encroachment on their meagre remaining commons, with the contingent fallout of impoverishment of the villagers and enrichment of themselves. The objective of increasing forest cover is solely for the purpose of future extensive felling, thereby showing that conserving biodiversity is of secondary importance if at all.

To examine this closely it is essential to see why the forests were degraded in the first place.

### History of Forest Degradation

Prior to the British entry into India, the forests were considered the property of the neighbouring villagers and were well conserved by them since they were nearly totally dependent on them to supplement their agricultural activities and to supply the raw materials on which their village industries thrived.

The common Indian in pre-British and early British times clearly understood the reasons for conserving forests. For instance, the Minutes of Consultation of the Board of Revenue of Madras Presidency of 18th May 1849, state: "The principal Collector of

Coimbatore mentions the general opinion among Natives that extensive clearances have an influence on rain". [Asking

Then as the British attempted to extract more wealth from India, they claimed sovereignty over the forests and enclosed them by their laws. The enclosure of the forests had a disastrous effect on local villagers. C C Wilson, Chief Conservator of Forests, described its consequences: "The dwellers in the countless villages all over the country had, from time immemorial, obtained a great part of their daily needs from the jungles. First and foremost was the question of fuel with which to cook their food. Without that they could not live. Then there were small timbers for building without which they would have no shelter, ploughs without which they could not cultivate the ground, grazing without which their cattle would die, green-leaf manure for their fields, tanning bark for their leather; bamboos for a dozen different purposes. And these were vital to their well being... And then an authority came into being which denied them what they had always looked upon as their rights. They fought most bitterly and indeed understandably, against the new tyranny".

In brief, the enclosure of the forests reduced their agricultural productivity, damaged their village industries, denied them access to wild foods and fodder, harmed their health and had a multitude of other effects. Every single one of these added to the impoverishment of the people, with far-reaching ripple effects.

Most of the rich forests were designated as reserve forests, closed to the people. Small areas around the villages were designated by the British government as protected forests and from these the villagers had to be content to obtain all the needs that they formerly obtained from a much larger area.

In the meanwhile, the British government formed the Forest Department for the sole purpose of exploiting the reserved forests' resources. Large areas were felled to build British ships and later, the railways. As the WGFP FPP itself mentions, almost in passing, the two "World Wars" was responsible for some of this". [1.1, p 1] Around Bombay, it is rare to see a tree more than fifty years old.

The forest officials saw their role as the maximisation of the revenue for the State (from which their own salaries were derived), with the local inhabitants totally disregarded. Income was dependent mainly on hardwood timbers required by the westernized industrial and urban society in large quantities. It is this and mainly this that has resulted in the degradation and destruction of the forests.

Another cause of rural impoverishment was the destruction of the handloom textile industry by the import and dumping of British machine-made ones. In the name of free trade, this process disemployed millions of Indians. With no opportunity to take up any other artisanal employment, they were forced to survive through agriculture. Again with no excess cultivable land available they were forced to fell forested areas in order to live.

Some of the villagers survived by entering the reserved forests

surreptitiously and take what they needed. The people who had lived on the numerous forest products, extracted sustainably, were now forced to sell headloads of fuelwood, or smuggle out felled timber, and clear further pieces of forested land for cultivation, all being done solely for survival.

The basic flaw is in the mainstream's understanding of the problem where this is considered an illegal activity. But the forests always belonged to the people; what was illegal was the enclosure by the colonial government and the activities of the forest departments, then and now. Instead of correcting the cause of the impoverishment, it has provided the FD with an opportunity to blame the villagers for forest destruction, an excuse still used till this day.

The enclosure of the forests also damaged them ecologically. Commercially "valuable" species, such as teak and rosewood, were selectively felled, and where reforestation was undertaken it was only with a very limited number of species. This was a major loss in biodiversity and sustainability of the ecosystem.

The real encroachers were and are the FDs and the State, an early injustice which needs to be corrected now.

By a curious twist of meanings, this wholly British devised system is called the "traditional" management system, when it should be the pre-British system that is really traditional.

Sadly, the policies which produced such disastrous results are being more extensively implemented by the KFD today.

The situation remains the same today with the aim of the KFD still being to maximise income from the sale of forest produce to the industrialised society. The resulting extensive forest damage is seen as the consequence solely of local people's need for fuel and other basic necessities. Programmes were therefore drawn up to supply these, not because they were basic necessities, but because the FD hoped that they would keep the villagers out of the reserved forests.

The KFD came up with the Karnataka Social Forestry Project (KSFP), jointly funded by the World Bank and ODA. Common village grazing lands were converted wholly or partially into fuelwood plantations, mainly of exotic eucalyptus species. This proved to be a grand failure, since not only were people deprived of grazing rights, but the ecological effects of eucalyptus turned out to be disastrous, impoverishing the people as well as damaging ecosystems. And it also created an additional debt burden on local people as the State had to repay the loan with interest. [Strings: 16

A new scheme had therefore to be introduced which was the WGFP. NGOs forced the KFD to add an element of community participation, but since this was reluctantly given and even more indifferently implemented, the further enclosures of the commons can only cause the levels of poverty to drop to starvation levels.

Unless the basic causes of forest degradation are tackled, any so-called solutions offered are bound to fail.

## The Degradation

The Report states that the causes of the present degraded state of the forest are (1) logging, (2) headloading, the theft of young trees for fuel and small-size timber, (3) livestock grazing and (4) fires. [ODA FPP 1]

### Logging

The report blatantly declares that "Local people, who are responsible for much of the biotic pressure on the forest, must play a major role in the planning, management and protection of the forest." [ODA FPP 4]

There is absolutely no proof that local people are responsible for much of the biotic pressure; on the contrary everything points to the KFD being the main culprit. The extent of the damage due to KFD logging has not been specified, but the revenue collected by the Department from auction sales of timber and the collection rights to non-wood forest products (NWFP) provides an annual contribution to the Karnataka State Treasury of some Rs 600,000,000 per year. This has not increased over the last few years as a result of a ban on felling of deciduous areas. [ODA FPP 2] The constancy of contribution shows that either the ban on felling is being totally ignored, or that other means of forest extraction have been profitably instituted.

Since medicinal plants contribute Rs 25 million [ODA FPP 2], and bamboo and sandalwood, probably more, even if only 50% of the revenue came from logging, it would still imply an enormous area that was annually destroyed. It is, moreover, not clear that the ban on felling applies to official FD clearance since the revenue should have fallen drastically if the ban is being enforced. The ODA FPP admits that "Uttara Kanara is the largest revenue producing Circle in the state, with timber, sold via auction, and distributed throughout India". [ODA FPP 2]

The figure given that only 45,000 ha have been encroached upon by local people while 200,000 ha of forest have been destroyed by mining, hydroelectric projects, nuclear power plants, etc, added to the fact that the KFD contributes Rs 600,000,000 to the exchequer, is enough proof to the contrary.

The allocation of land for forest based industries such as pulp and paper, is another major source of destruction of natural forests.

The mention of "future revenue flows" betrays the unchanged intentions. Sustainability merely means ensuring future income from the forests, not ensuring that the forests remain.

It is evident that the KFD sees it as its duty to maximise income so as to continuously increase its contribution to the State Treasury. This is obviously contradictory to the aims of preserving the forest cover and of promoting the welfare of the local people.

The causes identified for destruction in WGFP is in reality the affect of the commercial, industrial forest policy propagated since the colonial rule. [Strings: 7

### People's Destruction or Forest Dependency

This is listed as resulting from headloading, the theft of young trees for fuel and small-size timber. [ODA FPP 1

"Some 500,000 hectares of forest have been allocated for cultivation, rehabilitation of displaced people and other purposes, and a further 45,000 hectares have been illegally encroached in the Reserved Forests, largely by cultivators. [ODA FPP 1

"Rehabilitation of displaced people" should rightly belong to the first category, not to encroachment by the people, which is less than one-tenth that amount.

It appears that a large part of the forest has been destroyed for cashew plantation by the Karnataka Cashew Development Corporation, yet when villagers do the same on a fraction of an acre, it is considered a crime! \*check percentage under cashew]

The ODA admits that the local people are dependent on the forests. "Given the pressure on land and natural resources in the area, local populations are highly dependent on both the forest and the KFD for their livelihoods." [ODA FPP 1

Traditionally, agriculture was always dependent on inputs from the forests, particularly green and dry manures and fodder for their draught cattle, resulting in a highly efficient farming system with minimal land personally owned but with large areas of common lands. The majority of the people in the region depend on agriculture for their sustenance, using traditional, sustainable agricultural practices, which require the use of forest leaves in particular for fertilisation and pest control. [V No 22, 23] Farmers are familiar with and use various plant based pesticide species. [VPS 83] Farmers try to be "self-sufficient in all respects", rather than going in for cash crops. [V No 19

The crops are dependent on bulls for ploughing and manure, hence grazing areas are essential. The land possessed is too small to support the plantation of green fodder crops, even if this was sustainable.

The people also depend on the, usually thick, surrounding forests for fuel wood, hence they do not need the ODA plantations. [VPS 5] Which make it appear that the villagers are being deprived of their grazing land in order that remote others may get fuel.

The fuelwood is usually collected by both men and women. [VPS 20] Where fuelwood is scarce, villagers walk to forests up to 10 km away for fuel, starting their journey at 3 AM. [V No 15] This is mainly because KFD plantations of eucalyptus and Acacia auriculiformis near the villages replaced local fuel sources. These same types of plantations destroyed the fodder sufficiency

in several villages about 15 years ago. Because this requires purchase of fodder at high prices, the number of cattle has fallen to half, with the people keeping cattle only for essential purposes. [V No 25]

The people are also dependent on the forest for wood for agricultural tools such as ploughs, small timbers and bamboos for house construction and repairs, fencing, etc. Leaves of *Caryota urens* are used for levelling soil. [V No 20]

They use from the forests wild vegetables, spices, mushrooms, several varieties of fruits, tubers and nuts, honey and so on, which serve to supplement the food obtained from their limited land. [VPS 83]

The diverse species in the forest provided plenty of medicines plants to which more people turn not only because they are more effective than allopathic ones but also because they are available free. Villagers are worried about the extinction of these species by plantation monocultures. [V No 20]

Bamboo, canes and sandalwood are still widely used by thousands of family enterprises engaged in making baskets and furniture and in carving. [ODA FPP 2] Bamboo is being supplied at enormously higher rates to artisans than to big industry. Sandalwood, which earlier had been sold in small pieces affordable to artisans, is now auctioned to the highest bidder, effectively disemploying the artisans, or impoverishing them since they have to buy their raw material at a higher price from the successful bidders.

Numerous other forest products are collected and still used. \*Kyarabeeja are used for oil for carts. [VPS 45] Seeds of *Garcinia indica*, *Garcinia cambogea*, *Acacia sinuata* are used for soaps.

These products were traditionally - pre-British - collected, used and exchanged or traded by the villagers themselves. But since British days, these activities are all "illegal". The FDs deprived local people of their common property resources, and impoverished and continues to impoverish them. The FD auctions the MFP to contractors, who employ a few of the villagers at miserable daily wages to collect the MFP. A few people get employment for about 25 days in a year, earning on an average about Rs 40/- per day. [Assessment 47]

The KFD claims to be providing villagers with a sustainable livelihood and that it is the "major employer of labour". [ODA FPP 2] The KFD employs some - not all - of the landless as well as, in of dry season, those with land work. The KFD pays male workers only Rs 12-17 per day, with the women getting two to three rupees less. This being quite a quite low wage, many of the landless as in the villages are given work by the KFD. Some go to Goa and Khanapur for brick-making, mining, etc. [VPS 3, 35] \* [why do the rates differ from place to place?]\* [VPS 35]

There would be no need for the KFD to take on this onerous task - equivalent to the white man's burden? - if the forests were restored to the people.

The ODA FPP states that "The use of forest produce for medicinal

purposes is estimated to represent an industry with gross revenues exceeding Rs 25,000,000 per year. ... Also, contracts and licences by KFD are issued for a wide range of non-wood forest products to contractors who employ local labour for collection." [ODA FPP 2] This acknowledges the enormous income of which the local people have been deprived.

Moreover, the dependency of farmer and forest was mutual. The forest was closely integrated into the farming and village industry system, which required that the people protect it in order to survive; this they did for centuries. Today, those village industries have been replaced by large enterprises, for which "forest resources" such as bamboo have been provided at extremely low rates, with no regeneration liabilities.

In some of the villages where forests have been degraded, it is either because neighbouring villagers also access it, or because the KFD also collects fuelwood from this forest for sale. [V No 21] What the people obtained free, has now to be bought from the forest department with its high overheads.

The local people have been first impoverished by depriving them of their rights to NWFP and have been forced to supplement their income by stealing timber and other products from what were their own forests. Much of this, too, occurs only because of the urban and industrial demands.

Even where farmers are officially permitted to collect forest produce, they are charged for it. [VPS 86]

Such institutionalisation of what the local people were doing has been an effective means of transferring wealth from the people to the contractors, the FD officials, the FD and the state. The state spends part of its earnings from such NWFP sales in paying the KFD to guard the forest and organise the extraction, and then graciously gives back a tiny proportion of its income by way of subsidies and special schemes for the impoverished villagers. The entire system is a local replica of earlier colonial extraction and its present supposed compensation by international aid. The ODA spends part of what the British colonial government earlier extracted from India and what it extracts today through inequitable terms of trade, on schemes like the WGFP.

If the well-being of the people is the concern of the state, then the simplest solution would be to restore to the people what is rightfully theirs, allowing them to collect, use and trade all minor forest products freely. It is only in this manner that the societal aims of the ODA can be fulfilled: "To assure the sustainability of the living standards of those people whose livelihoods currently derive, in whole or in part, from the forest". [ODA FPP 3]

No increase in the State revenue and economic growth can compensate for the injury inflicted on the very poorest of villagers by depriving them of their survival-base which has been theirs time immemorial and which has been the basis of a sustainable society.

## Livestock

"Livestock, grazing throughout the forest, has also done much damage. ... Livestock holdings are high - estimated to be roughly equal to the human population in the Ghats. Fodder and grazing land are not readily available outside the forest area, and the problem is exacerbated by the fact that much of the traditional grazing lands outside the Reserved Forest (Gomals) are now cultivated. [ODA FPP 1

Grazing was always an integral part of pre-British traditional forest management, with a high availability of fodder and little damage to the forest. It was the enclosures that led to a reduction of available pastures, with consequent overgrazing in these. A major process of effective enclosure was the gradual conversion of natural forests into plantation monocultures of teak, later eucalyptus and now *Acacia auriculiformis* (*auriculaeformis*), none of which permit good fodder grasses to thrive under them.

The statement that the gomals are now largely cultivated is incorrect, with pastures being the main areas now being enclosed by the KFD for the ODA plantations. Villagers repeatedly say that there was sufficient fodder till the establishment of earlier plantations created a shortage. [V No 20

The ODA appointed a consultative committee with the specific task of studying the livestock issue. [ODA FPP 74] Since its report is available, this will be considered rather than their remit.

The consultant committee, consisting of one animal health advisor and one agricultural economist, both from the UK, spent a total of 6 days in 1992 "appraising the livestock issues arising under the project\*", of which just one day was spent visiting the site and speaking to the farmers concerned. The team also met project staff and officials, and spent a considerable part of their time in travelling to and from Delhi, Pune, Bombay, Bangalore and Sirsi.\* [LM 1992 i & 24

In spite of this short stay the report is fairly satisfactory in its general depiction of the situation. It correctly states the various roles of livestock in the sustainable agricultural system practised: "as providers of dung for manure, fuel and sale; as providers of animal power for draught purposes; as providers of milk for own consumption or sale; as providers of ready cash when required; and as the means for the poor to accumulate assets and so rise above their poverty". [LM 1992 16

The team also noted that "the poorer members, will not be easily persuaded to relinquish their cattle. At present, they may have a few cattle which are maintained in a relatively low-cost system in which fodder is essentially free (except for the labour requirement for supervision), the animals are not highly susceptible to disease and ... expenditures are low. ... Any alternative systems proposed for these types of farmers must satisfy their requirements for animal outputs whilst maintaining their self-sufficiency so as to avoid increasing the risk of disaster. If, for example, these farmers did not have their own draught animals, but were forced to hire from the market, there is an increased possibility of them failing to have available

cash at the time required, or failing to acquire the service at the required time, with potentially disastrous effects on their overall farming system and food security." [LM 1992 11]

"For landless labourers, livestock represent one of the few available options by which assets can be accumulated in order to overcome poverty, since they are able to reproduce and increase in value without initially requiring land or major investment. ... "in the project area some landless labourers have felt it worthwhile to invest in goats, which may be the beginning of such an asset accumulation strategy. The advantage of such a strategy is that it can be initiated at low cost, since fodder can be supplied from common grazing areas, and expanded as opportunity arises. [LM 1992 11]

The team was repeatedly told of the 'unproductive' animals kept by local people, whilst at the same time it was acknowledged that livestock are required to produce multiple outputs. It may well be that there are unproductive animals using the forest, but it is also possible that some of these animals perform some of the roles as discussed and are productive in a less commercial and visible way. [LM 1992 11]

The consultants assert that: "Livestock were an integral part of all of these farming systems, and not simply an additional enterprise." [LM 1992 iii] Given this fundamental conclusion, the consultants should have sought ways in which to preserve and enhance this eminently sustainable system. But the team accepted, unquestioned that: "The general opinion of Forest Department staff met was that livestock are damaging the forest, and the opinion of many livestock-keepers was that grazing is scarce". [LM 1992 iii]

The team could not or did not make the connection that grazing was scarce because of the enclosure of the forests, not primarily because livestock are damaging the pastures. The FD's main interest is to ensure that the forest be protected in order that future, much more extensive, damage can be profitably carried out by the FD alone.

The team noticed the activities of the Gowlis, the semi-nomadic pastoralists living in the forests, making a living from milking their herds of buffaloes and by practising shifting cultivation to some extent. [LM 1992 2] But they did not bring out the fact that the movement of the pastoralist was essential to prevent overgrazing in a particular area and also served to fertilise fields of farmers in which the herds were penned. This movement has been stopped or reduced by modern traffic, the use of synthetic fertilisers and other factors.

Because of this loss of continuous employment, the Gowlis are forced to work as hired labour for the FD during the dry season. [LM 1992 3] For which the FD takes credit.

In any case, the report admits that "Certainly it would be difficult to conclude from our short visit that they are the major problem, in terms of livestock, facing the Forest Department". [LM 1992 7]

However, the KFD is a major problem for the Gowlis. It has deprived them of their rights to use their considerable knowledge

of livestock and forests. They have been thoroughly demoralised and see no interest in continuing to exist. They are victims of cultural genocide. The livestock committee would have been better constituted of the Gowlis themselves, not of foreign "experts".

Although the KFD insists that there was excessive grazing in many forest areas, the team was not shown any evidence of this. The KFD said that cattle and buffaloes cause damage by trampling, grazing and compaction of soils, killing or preventing young sapling re-growth so that the regenerative processes required for sustainable forest management were hampered.

If this is at all happening, it is because the grazing areas available are being continuously reduced by the activities of the KFD itself and now under the auspices of the ODA. It has been observed that in forest areas left free to regenerate with cattle allowed in, seedlings manage to survive because they are resilient enough to withstand trampling or are protected by thorny shrubs like Euphorbia and Carissa species. Compaction is a problem only when the areas are overgrazed. The fact that regeneration does take place is indirectly admitted by the KFD itself when it claims that thinning is necessary in the ODA areas, which are mainly grazing areas. The existence of natural regeneration is also mentioned by the villagers and has been observed in other places. [\*Asking?

Natural regeneration is not limited to those areas with little forest cover and where grass can grow and hence grazing is possible. *Anogeissus latifolia*, for instance, comes up "naturally and often in abundance in dense thickets". Moreover, its "reproduction is always best in years of drought" showing that irrigation is unnecessary. [WoI Vol 1a p 297]

"Goats were described as the enemy of the forest, since their method of browse-feeding involves biting the growing tip of saplings, which leads to death in the majority of species not capable of coppicing." [LM 1992 6] However, the families which maintain small numbers of goats, say that their animals "were not taken inside the forest because of their vulnerability to carnivorous predators, but were grazed along the roadside." [LM 1992 3]

"Forest degradation does not occur solely in 'open-access' areas: The most degraded forest shown to us was in areas of 'betta' land used by arecanut farmers. In two of these areas allocated to individual farmers, trees had been heavily lopped and ground cover was very thin. Ground cover was also heavily grazed in another area which had been illegally fenced by a group of three padi (paddy) farmers who also had a small (0.25 acre) arecanut garden. We were told that the fenced area was grazed by the families' cattle but would be replanted with trees next year by KFD". [LM 1992 7]

The team itself reports that the degradation of the betta lands is due to the fact that the farmers have not been given legal rights to the area. In the case of the paddy farmers, again it is the restriction of their rights to other areas that is responsible, since a minimum number of cattle are essential for each farmer for draught purposes. But the KFD has said that it is going to deprive them of even the little grazing they possess,

forcing them to go into the forest.

"Dung and fodder are regularly bought and sold by most groups ... and this represents an important linkage between the various production systems. For example, Gavlis told us how they purchased padi stover from agriculturists, and paid back later in the season with buffalo dung. ... Concentrate feeds are also frequently used by many categories of farmer, both to supplement the poor quality diet of cattle grazed on common lands or fed straw, and also to facilitate the high energy intake required by high yielding dairy cows. Draught animals may also be fed concentrates when required to work heavily." [LM 1992 8]

This exchange of fodder and dung is an example of the close integration of the local system as a whole, with one person's waste becoming another's fodder which is in turn quickly converted into fertiliser to be used by the first. The milk produced is almost a byproduct in such a system. The need for the purchase of concentrates has arisen because of the transfer of the village oil extraction units to towns and cities in the name of efficiencies of scale. The oil cake, traditionally an essential part of cattle nutrition, is now exported to feed the cattle over-populations of Europe and other regions.

"Draught power is traded, as agriculturalists with only small areas of land hire their bullocks and possibly labour to others. Local breeds are preferred for draught purposes, and there is evidence that male calves from crossbred cattle are left to die by the intentionally inadequate provision of feed, although it is also possible that rather than let calves die, owners may prefer to give them to others." [LM 1992 9]

However, the ODA sees the situation only through western eyes. "The present level of livestock holdings is unlikely to fall significantly over the next few years despite a general trend towards stall feeding. [ODA FPP 7]

Livestock, required for draught, for manure and a little milk, for inter-farmer exchange, as well as for asset growth, are seen to be replaceable by stall-fed crossbred cows, kept only for milk and money. (Crossbred cows are also a consequence of European "aid" for which we continue to pay in increasing environmental degradation, loss of cattle diversity and increasing inequalities in wealth.) In addition to having a long list of major liabilities, cross-bred cows require the extra use of fodder and/or the conversion of food crop land to irrigated green fodder production; not a very satisfactory solution considering the present shortage of agricultural land and the need to grow more food. The local people are aware of this fact, as the team noted: "It was also interesting that no evidence was found of a preparedness by improved dairy cattle owners to plant fodder grass species at the expense of food crops. [LM 1992 10]

Stall feeding is recommended by the KFD because the added labour cost will force farmers to reduce the size of their herds as they see it to be too onerous. [LM 1992 12] The report itself points out the additional burdens imposed on the owners. "Stall-feeding, by definition, involves someone going to collect fodder on a daily basis. This can be very time-consuming and arduous work, depending on the location and availability of the fodder, and is

likely to be performed by women and children who may already have many other tasks to perform. Alternatively, \*price must be paid which reflects the time taken by someone else to do it. If the requirements of stall-feeding are compared with existing systems where the animals take themselves to the fodder and if labour is required, it is of a physically undemanding kind, suitable for household members who may not be able to earn income elsewhere. It can be seen that proposals for adjustment of existing practices must consider the needs of, and options available to, the livestock-keepers, richer and poorer, both men and women. [LM 1992 14] The report also notes that stall-feeding deprives cattle of exercise, which would make them unfit for draught purposes. The fundamental fact that farmers need draught cattle does not appear to be acknowledged by the KFD as they attempt to deprive farmers of grazing; all that further enclosures will do will be to add to the burden of the people, particularly women.

It is well known that the male calves of cross-bred cows are either too lazy to work or cannot be trained to do so. "They just sit", farmers report. The promotion of cross-bred cows for milk deprives the farmers of male progeny suitable for draught purposes, adding to unsustainability. Dairying, beyond the limited extent practised by Gowlis, is unsustainable, milk being an unnecessary food except for some children. Most Indians are also lactose-intolerant, whereby they digest only a portion of the milk nutrients and also suffer from debilitating diarrhoea and other diseases. (It should be noted that similar pastoralists in the Gir forest did not sell milk as such, only ghee prepared from it.)

The replacement of draught animals by crossbreds milch ones, implies that tractors can replace animals, which is simply not feasible to most of the farmers, given their high cost. The need for livestock for draught purposes will be even greater when fossil fuels begin to run out. A good project would therefore seek how to increase the pasture areas required in order to support an even higher population of draught cattle.

"The livestock use of forest grazing is an example of a common property problem where the interest of the individual is contrary to that of the population as a whole. On the contrary, under the existing system of essentially deregulated grazing, the additional cost of keeping one more animal is minimal, and therefore it makes sense to continue with more rather than less animals, and the keeping of 'unproductive' animals is a response to this situation." [LM 1992 12]

This is typical of the western way of looking at the situation, based probably on Garrett Hardin's "The Tragedy of the Commons". [\*] There is literally a world of a difference between the west's and Indian treatment of the commons. The former is individualistic, selfish and greedy, treating the commons as open to exploitation by whoever comes first or has the "best" technology. If the local Indian people were as selfish, then the common forests and pastures would have been vastly overgrazed long ago. But people here know that they have rights as well as duties to the community, even where these are not written down or even consciously observed. Unproductive animals are usually retained because they have served their masters well and are seen to deserve a peaceful retirement. Further, these frail animals

also serve as prey to predators, as in a natural situation, which the true traditional system essentially is. It is curious that the unproductive male calves of crossbred cattle are not condemned as vigorously as the "retired" cattle.

Where degradation of the commons has occurred, it is mainly due to their prior enclosure by the FDs, which reduces the grazing area available to maintain the minimum of two bulls that a farmer requires.

The further enclosure of the forests which is presently going on under the ODA projects, is already making the poor poorer. The report states: "Jodha (1990) reports from the drier areas of Karnataka that the poor are more likely to be reliant to a greater extent than wealthier people on common property such as forests, especially in times of hardship. Their conclusion was that in absolute terms, the richer sections ... exploit forests far more than the poorer classes, but in relative terms, poor peasants and agricultural labourers are more dependent on forests for survival of their livestock economy. It follows that restriction of access to forests is most likely to affect poorer livestock-keepers because of the lack of agricultural and livestock options available to them, due to their shortage or absence of land. If conservation policies are not to threaten the livelihoods of many of the more vulnerable poorer livestock holders, it will be necessary to explicitly consider their interests, a pre-requisite of which is an understanding of their use of the forest." [LM 1992 13]

"However, the present use levels of the forest are considered unsustainable, and contrary to the aims of the Forest Department of rehabilitation and conservation of the forest as a valuable natural resource. On the one hand, if livestock practices continue unchecked, there may be irretrievable damage to the forest ecosystem whilst on the other, if livestock-keepers' access to forest fodder products are curtailed, then serious consequences may arise for the sustainability of local farming systems and incomes." [LM 1992 16]

These are false options, since most of the damage to the forest has been done by the FD's monoculture plantations and other practices, which have reduced the area of grazing to unsustainable levels. Moreover, when villagers have pointed out in VC meetings that their animals will not have enough grazing because their usual grazing grounds have been taken up for ODA plantations, they have been specifically told that they were free to graze their animals in the rest of the forest. This does not suggest that the FD considers that the forest would be damaged by such grazing, unless, of course, the FD officials did not mean what they said. Several of the gaps which had been taken over for ODA planting already had young plants of several indigenous species growing on them, IN SPITE of continuous grazing.

Moreover, it is time that the State and the FD realised that the value of the forests cannot be solely assigned to its timber to be used by distant industries but that the local people have prior and superior rights to their local environment. The forests need to be conserved and rehabilitated for the local people as well. It is an well-known fact, however, that the enrichment of a small group of people by modern economic and industrial progress is always connected with the impoverishment of many others, and

such impoverishment is consistently ignored.

But the report does not question this aspect at all. "Accepting that forest conservation is the prime aim, the following options are available to livestock-keepers if they are to maintain the required level and composition of livestock outputs. They must either:

1. Poach a resource to which they have no entitlement;
2. Non-sustainably abuse a resource to which they do have entitlement;
3. Acquire more land;
4. Purchase feed inputs; or
5. Intensify unit area production.

If none of these options are feasible then they must sacrifice some outputs." [LM 1992 17

In other words, just accept the fact the project will make them poorer.

Permitting the people to access more grazing land or at least to keep their present pastures is not an option.

#### BOX STARTS

Although the team did not recommend the employment of BAIF for an internal consultant, it may be worth examining BAIF's performance in case another similar institution is proposed.

The report's comments on BAIF, based mainly on BAIF's own information, are naturally biased. [LM 1992 20] It is true that BAIF has been "successful in promoting the cross-breeding" of cattle, but have the dairy farmers benefited? It is commonly known that farmers are simply unable to provide the climatic conditions, feed and health care that these fragile animals require. The original owner of a crossbred cow, seeing that the cow does not keep up to its claims, sells it to another farmer at a low price, who in turn sells it at a still lower price to herders who depend only on free grazing, when the animal soon dies because it cannot stand the "unhealthy" conditions, to which Indian breeds are well accustomed. All of them share in the losses of the scheme, but in BAIF's books it is a "success".

"They (BAIF) also have considerable expertise and experience in the use of fodder tree species and grass/fodder combinations in the rehabilitation of degraded land..." [LM 1992 22] BAIF's "expertise" in fodder tree species, consisted in their active promotion of *Leucaena leucocephala* as a fodder. *Leucaena*'s high content of mimosine has not only harmed thousands of cattle and goats but also wildlife such as monkeys and squirrels, as seen from their hairless tails. The species is now being attacked by the psyllid pest, which has devastated thousands of hectares of *leucaena* forests in South East Asia, entered India a few years ago. [Second Thoughts On A 'Miracle' Tree, Winin Pereira & Manek Mistry, Hornbill 9004 8-13.] The *leucaena* seedling packets often contained seeds or seedlings of *Parthenium hysterophorus*, a weed that has converted thousands of hectares of excellent pasture land into killing fields.

BAIF is now promoting the use of sweet sorghum instead, but this

has its problems too, particularly when tender shoots are consumed under drought conditions, due to the presence of cyanide.

An aspect on which no research appears to have been carried out, is the extent of new diseases that exotic animals, whether cows, goats or poultry, bring into the village, to which Indian breeds are not immune. [see Tending \*] The latest in the latter category has been the Gumboro disease.

Further, figures published show that the NDDB actually impoverishes its own cooperative society members. The keeping of cattle for milk sale is neither economical nor sustainable and should be banned. This would increase the fodder available for draught animals. [See Tending\*]

BOX ENDS

The report states that "The visit was initiated because of a view from the project area that there existed a problem of the conflict between sustainable forest management involving conservation of the natural resource base, and livestock-keeping practices of the population using the forest from which they draw varying degrees of income." [LM 1992 ii]

What is not considered at all is a concept of biodiversity that includes livestock as well as human beings as normal components of natural forests. Cattle always were an integral part of the forest ecosystem, first as feral animals and then as domesticated ones sent in to graze. Keeping cattle out unbalances natural forest systems. While the supposed damage that livestock do is carefully listed, their contribution to keeping down coarse grasses, weeds and rampant shrubs that would quickly take over the area, and of providing quick recycling of nutrients, essential for the luxuriance of tropical rainforests, is totally ignored.

In one attempt to promote natural forestry, a climber, *Combretum ovalifolium*, grew uncontrollably, smothering even tall trees. It would normally be eaten by goats and buffaloes, but because this area was protected from grazing the damage was extensive.

Experiments in regenerating patches of a few square meters to a few hectares, have confirmed that - provided there are not too many cattle - indigenous species can grow well without protection. Many of our local tree species are unpalatable to cattle and are not browsed by them. They also seem hardy enough to survive occasional trampling. Jungles have a large number of edible shrubs and herbs in addition to trees, and it is possible that cattle prefer to browse on the former. Some trees survive under the protection of thorny or non-edible shrubs.

Goats were also responsible for the dispersal of natural species, for instance of *Acacia nilotica*, the seeds of which germinate much better when eaten by them and excreted, packaged with fertiliser. But such random dispersal is against "traditional" forestry management practices.

The late Salim Ali pointed out that the rash decision to stop grazing by domestic cattle, particularly buffalo, in Keoladeo

National Park, Bharatpur, has resulted in the park being taken over by aquatic grasses, earlier kept in control by the grazing and trampling of buffalo and cattle. Two grasses, *Paspalum distichum* and *Vetiveria zizanoides*, have spread most. [Vijayan, V. S., "Keoladeo National Park Ecology Study: 1980-1990. Final Report", Bombay Natural History Society.] Scientists with the BNHS believe that regulated grazing reaps similar benefits in grasslands too. [Combating The Human factor, New Sc 900526 68-69.]

In the Gir Sanctuary in Saurashtra according to post-British, traditional forest management, the protection of the lions, their prey and the grazing for the latter, required that the Maldharis (the pastoralists) and their cattle be forcibly evicted from the core area into the periphery. In a few years, shrubs and trees that were earlier kept under control by cattle, flourished and completely blocked movement in the core. The deer and the lions shifted out into the peripheral area where they now live, causing more harm to the Maldharis. The surrounding village farmers also suffer the consequences, since the lions find it easier to attack their cattle, rather than hunt wild animals. [Thijs de la Court, pers. comm.] Similar phenomena have been observed in Africa. In one region, unless the forest is grazed by goats, a particular shrub grows to form a wall through which even elephants are reluctant to go. [Hans Verholme, pers. comm. will give a Dutch Professor's ref]

Grazing cattle keep the grass short in forests, thus reducing the intensity of accidental fires. When nitrogen-fixing legumes occur widely in pastures and if these are harvested by animal browsing, for green manure, food or any other reason, nitrogen rich material is removed and the nitrogen balance of the plant is upset. This is followed by nodule degeneration, which results in release of nitrogen into soil which then becomes available for other plants including the legume. [Plants For Arid Lands: Proceedings of the Kew International Conference on Economic Plants for Arid Lands Held in Kew, July 1984. G E Wickens et al, George Allen & Unwin, UK, 1985, p 224] In a forest, therefore, regular grazing will result in more nitrogen being fixed per unit area of land than if the same plants were not harvested. Also, if the grass and legumes are harvested for stall feeding only once at the end of the rains, much of the value of the nodule degeneration will be lost.

Grazing also helps grasses to grow better. ✓ Some good fodder grasses, such as *Brachiaria ramosa* and *Paspalidium flavidum*, cannot survive if the land is protected from grazing even for one year. This is perhaps because the seeds need to be pressed into the ground by the hooves of grazing animals in order to grow. [Grasses of Western India, Hood, T & P, pp 64 and 148, BNHS 1982]

Australians had observed that grass grew better when cattle graze on it (owing to the growth promotion of their saliva) than when cut with a sickle. [11. Lal, Babu, "Role Of Plant Growth Regulators in Agriculture", Farmer & Parliament, December 1989, p 7.] Charles Darwin had suggested that hoof depressions allow water to collect and so help seeds in them to grow. [12. Darwin, Charles, "The Formation of Vegetable Mould", Faber & Faber, 1881, p 23. Trampling, rubbing and selective grazing by animals has a decisive and positive impact on the viability of plant communities.]

Without grazing, unpalatable grasses and weeds may dominate and reduce the plant diversity, ruining them in the long run. Short intensive grazing and "hoof ploughing" can stimulate plant growth. [13. Luhl, Hans-Peter, "Holistic Resource Management: Can It Beat Desertification". ILEIA, October 1992, p 10.]

If pasture grasses are cultivated, it reduces land used for food crops. Moreover, synthetic fertilisers would be needed, otherwise no organic manure would be available for other crops. It has been observed that animals prefer the taste, and probably the nutrition, of pasture that has been treated with dung to that which has been treated with synthetic fertilizers. There is also the possibility that cattle get special nutrient needs from other herbs, such as Sesbania species, Cassia tora seeds, and other plants while grazing. These will also have to be collected and fed to the cattle otherwise they may have to be given oilcakes which are expensive.

Free ranging helps in the continuous fertilization of the very pastures which feed the animals. [9. Powell, Mark, "Nutrient Recycling Through Livestock: 'Fertilizer Factories'", ILEIA, October 1992, p 13.]

It is when exotic species are propagated that problems arise. For instance, Leucaena is vigourously browsed by cattle and goats and neither it nor Acacia auriculiformis can stand trampling. The latter, in fact, is so brittle, that strong winds break big branches. Leucaena is so attractive that buffaloes have been seen to put one hind leg over a 10 cm diameter tree and break it down.

The solution is not to restrict grazing but to provide more grazing, and no permit natural regeneration only with a minimum of "forest management", no matter how sustainable it claims to be.

The ODA recommendations are also contradictory. Gobar gas plants are to be promoted as substitute for fuelwood, yet the number of cattle is to be decreased. To supply sufficient fuel for family cooking, a gas plant requires to be fed with the dung from at least four head of cattle. Most of the poorer farmers have just two head. Gobar gas is only a partial solution, unless the grazing area is increased.

An increased number of cattle is also required to produce the manures required to replace synthetic fertilisers because of the latter's pollution and soil degradation effects, because of the increase in prices resulting from the implementation of IMF SAPs requiring the removal of all subsidies, and because the raw materials, mineral oil and natural gas, must eventually run out.

Even from the point of sequestering carbon dioxide, some tropical grasslands turn far more CO<sub>2</sub> into carbohydrates than anyone suspected, equalling - or even exceeding - the productivity of tropical rainforests. [Are we missing the grass for the trees? Groot P, New Sc 900106 29-30.]

It is necessary to look on the project not from the point of view of the FD, but as a whole. Farmers and forests need cattle and cattle need fodder. True conservation will occur only when all the needs are satisfied.

The across the board banning of grazing shows how simplistic

science makes wrong predictions. Exotics are introduced or plantation methods used; the seedlings do not survive because of grazing; grazing is banned; plants that are controlled by grazing take over; grasses and plants that require grazing suffer; soil fertility goes down; animals and people suffer.

In the meantime, when people complain that they will have no fodder because their grazing lands have been taken over, the KFD tells them that they will be able to graze their animals again after three years. The cattle, one supposes have to fast for 3 years.

#### The Practice

In Harneer, the original grazing land had about 365 acres and served 7 villages. This has been gradually converted to *Acacia auriculiformis* plantations, with most of the grazing land being lost, and increasing pressure on the remaining. [V No 15]

The loss of grazing land is such that people are forced to reduce the number of cattle they own, which then results in a loss in agricultural production and further impoverishment.

It is claimed the decrease is due to tigers (leopards?) killing cattle. Since the owners are paid about Rs 200 only per head killed by the KFD as compensation, they cannot afford to buy replacements. [VPS 12] This shows that the livestock also serve the interests of forest predators and faunal diversity.

In some villages, landless families have been given loans under the IRDP scheme for cattle, including crossbred ones. [VPS 53] One department of the government promotes schemes to raise their income, while the KFD/ODA deprives them of even the available grazing. Since the milk production drops due to malnourishment, they are then unable to repay their loans and get further impoverished.

#### Fires

"Fire is a major problem and where possible fire watching and fighting will be a component of the Forest Agreements." [ODA FPP 10]

Livestock owners are blamed for most of the fires since they regularly burn dry grass before the monsoon. But it has been stated in the Plan for Basapur village that "poachers and smugglers ... feel that dry leaves will hinder their movement by creating noise and to avoid noise they set fire to burn the dry leaves". [MP Basapur 17]

Burning of dry grass by cattle owners is a pre-British traditional "forest management practice". Not only does it produce a good flush of new grass, but it also serves to kill cattle pests such as ticks (it limits the spread of tsetse flies in Africa). It also controls the growth of rank grasses and weeds and tree species which cannot stand fires. The fires also help in rapid nutrient recycling, with nutrients such as N, P and Ca, released by burning organic matter. [The Yellowstone Fires, Romme W H, SA 8911 21-29.]

If burning is legally permitted, herders carefully control it so as not to allow the fire to spread, with wind speed and direction being taken into account. If made illegal, the grass is set on fire and the person leaves the area because he is afraid of being caught; the fire burns uncontrolled. [Hans Verholme]

An example from an Adivasi village in the Western Ghats reveals the still existing traditional forest management practices. To reduce the danger of fires due to rab (the burning of fields for paddy) and grass, villagers prepare a fireline. The line falling within the boundary of a particular village is decided upon and drawn based on the collective decision of the village. If fires do start, the villagers all together put them out with the use of stones, soil and branches of trees, but no water. If village farmers burning a rab field allow the fire to spread, they are fined. The use of kerosene in the forest is discouraged by the belief that the forest-god (vana-devataa) does not like it. The villagers also abstain from smoking in the forests. For a period of about one and a half months after the commencement of the rains, cattle are not permitted to graze in the forest to protect the newly emerged saplings from being trampled upon. The biodiversity of the forest is preserved by the designation of several species as sacred and the maintenance of sacred groves in which absolutely no felling is allowed and even dead branches are not lopped. [Kusum Karnik, Adivasi Lifestyle - Sanctuary, paper distributed during workshop on 'Problems of people and sanctuaries' at Narodi on 18 April 1992]

Another management practice still in use is the continuous removal of dry leaves for manure from the forest floor, thus limiting the intensity of fires. The cutting or grazing of grass also reduces the danger. There are several indigenous tree species which survive fires. All this points to the advisability of permitting the occasional burning of forests.

The history of forest fire-fighting in the US is instructive. Small fires continuously swept through the forests and from about 1910, foresters started fighting every forest fire. But instead of controlling fires, this policy resulted in the size of each fire and the damage they cause increasing to a horrendous extent. In 1992, 70,000 wildfires in California, Oregon, Idaho, Washington and Utah consumed over 1.5 million acres. [Fires In The West: Long Hot Summer, The Economist 920905 39-40.]

The earlier small fires were actually a good thing because they regularly burned dry matter, not allowing it to accumulate. Without such small housekeeping fires, forests are now choked with fire-hazards. [Fires In The West: Long Hot Summer, The Economist 920905 39-40.]

Many species of herbs and trees survive small forest fires, with their roots, rhizomes and seeds buried in the soil, allowing them to grow vigorously following a fire. The fires increase species diversity, including that of animals. Insects and other invertebrates colonise trees killed by fire as soon as the forest cools. [The Yellowstone Fires, Romme W H, SA 8911 21-29.]

The FDs cannot see forests for the "commercially valuable" trees. But a natural forest has thousands of species of plants, insects,

microorganisms and animals. Each of them contribute to the ecological wholeness of a natural forest. Open spaces are essential for fodder for deer and other grazing animals and for space in which their predators can chase them. And these natural forests are vital to the continuing well-being of both humans and nature.

The Livestock Committee reported that burning of grass allows weeds to flourish. "Whilst visiting a Gavli 'colony' our attention was brought to the presence of a forest plant known as Eupatorium which was preventing access to grazing and was also smothering grass. Forest Department staff informed us that this weed had a relatively high light requirement and was not a problem in forest with full canopy cover. Where the canopy was thinning, the plant, which is fast-growing and prefers good soils, was able to spread. Elsewhere, we were told how livestock keepers commonly set fires in the forest in the dry season in order to burn off the old and dry grass and to cause a nutritive flush from the stored reserves of the grass. Subsequently, this practice also favours growth of Eupatorium at the expense of grass". [LM 1992 7

The species probably referred to is Eupatorium odoratum (Chromolaena odoratum) which is an introduced species. The weed originated in the West Indies but became a serious weed in humid tropical regions of West and Southern Africa, Asia and the NW Pacific islands. [Second International Workshop on Biological Control of Chromolaena odorata, February 1991, Bogor, Indonesia, Agroforestry Today 9009 22.] The weed is believed to have been imported into Assam in the early 1920s with the Australian railway sleepers largely used on the Assam Bengal Railway. [August 15, 1924 Calcutta News: The Drainage Problem, TOI 29.8.92 14.] Other sources say that it was introduced as an edging plant in gardens. It is very widespread in forests, plantations and pastures from Nepal to Sri Lanka. [WoI Vol. 3:Ca-Ci p 501]

The KFD blames livestock holders for burning grass, claiming that this promotes the weed, yet the KFD admits that the weed occurs in places where no such burning occurs. In the Micro Plan of Basapur it is stated that out of a total forest area of 500 acres, 250 acres are covered with Eupatorium. [MP Basapur 7] Such a large area could not have been the result of forest burning by the local people.

The weed was probably brought into the forest by the KFD itself. The initial access could well have been with seeds brought in with seedling packets for KFD plantations. This has occurred with another weed, Parthenium hysterophorus, which was spread in Maharashtra partially, at least, through seedling packets of Leucaena leucocephala, as mentioned earlier.

Moreover, the weed is being controlled in certain other places by burning before the weed flowers. In any case, the solution to the problem is the control of the weed, not a further limitation of grass available to farmers, or the closing of forest cover where natural open spaces exist. [\*]

It is true that flora and fauna change drastically after a major forest fire, but since the grass fires are annual there can be no major change now.

## The Project

Since the project has already been in existence since 1993, the project is discussed with the actual practice, obtained from a survey of about 50 villages.

The objectives of the Project are stated as being the following.

Ecology: To maintain the ecological balance and the environmental stability of the Western Ghats, to preserve their unique flora and fauna and to increase understanding of them.

[ODA FFP 3]

Environment: To rehabilitate and protect the major environmental resources represented by the Western Ghats forests.

Society: To assure the sustainability of the living standards of those people whose livelihoods currently derive, in whole or in part, from the forest,

Economy: To assure the sustained yield of all categories of produce proper to the natural forest, so as to secure sound economic welfare for future generations.

One would assume that any forest project today, with global concern about ecological dimensions, would give priority to conserving the forests and their biodiversity. While appearing to do so, however, the project will intentionally defeat this purpose.

The ODA claims that one of its aims is to "maintain the ecological balance and the environmental stability of the Western Ghats, to preserve their unique flora and fauna and to increase understanding of them". And an allied one is to "rehabilitate and protect the major environmental resources represented by the Western Ghats forests". [ODA FFP 3] The Brief Project Description adds, evidently as an afterthought, that it also aims to increase the biodiversity of the region. [\*]

The ODA admits that the "forests in the Western Ghats include a unique variety of forest types ... including a substantial area of rare undisturbed moist deciduous forest". Exploitation "has resulted in an unnatural age class sequence: there is a deficit of large stems of the most valuable species ..." [ODA FFP 1]

This is an open admission that the loss of forest biodiversity has been mainly due to clear felling and "selective" logging.

The exploitation has been carried out by the pre- and post-British FDs. The accent on the "most valuable species", taken as economically valuable, shows that the interest in biodiversity is nominal, since if it was not, all plant species, and the fauna too, would be considered equally "valuable". Conserving or increasing biodiversity and commercialisation by clear felling are contradictory aims. The selective felling of "most valuable species" has resulted in the present ecologically unbalanced forests. But even here it is not the ecological unbalance that is of importance to the KFD and ODA, but the economic unbalance, caused by the lack of species to exploit commercially.

Since the start of the project in 1993, there is absolutely no evidence to show that any attempt whatsoever has been made or is proposed to be made to improve the ecological situation and increase biodiversity. In fact, the reverse is the case. In the plantations carried out in the majority of the Zone IV villages surveyed, *Acacia auriculiformis* has been planted to the extent of 40 to 90%, with most of the plantations being at the higher end. [VPS 4] Some of the earlier (1989) KFD plantations were of pure *Acacia auriculiformis* monocultures. [V No 15]

This acacia species is a recently introduced Australian species and cannot by any stretch of the imagination be considered as contributing to restoring or maintaining the Western Ghats' unique flora. While planting *Acacia auriculiformis* could be considered an increase in biodiversity in a loose sense, it can hardly be called the promotion of natural regeneration. The species also contributes to an immediate reduction in biodiversity, since diverse species of plants which have come up naturally have been replaced by *Acacia auriculiformis* and because of the latter's effects on surrounding vegetation. Moreover the ODA plantations, even if mixed, will be cut down in ten years, and not only cannot "assist in the long term conservation of biodiversity of the Western Ghats".

The villagers have many objections to *Acacia auriculiformis*. They say that grass does not grow under it, which makes the KFD promise they could return to the plantation area to graze their cattle after 3 years meaningless. (In Maharashtra, it has been observed that the good pasture grasses do not grow under *Acacia auriculiformis*, but that rank ones do.) And in the meantime the cattle go on fast? The KFD had no answer to the grass problem since it was evident all around them. The villagers also claim that feral buffalo and deer do not eat *Acacia auriculiformis* leaves and they will then start to graze paddy fields instead. [VPS 24]

The villagers said that *Acacia auriculiformis* dries up their sources of water. [VPS 13] They were told by the KFD that "acacia saplings were sent to a laboratory for testing" and the tests showed that the roots did not go deep. [VPS 73] Such laboratory testing is highly improbable, but it is possible that since *Acacia auriculiformis* does not have leaves, only phyllodes that its transpiration rate is low.

The villagers note that *Acacia auriculiformis* leaves (phyllodes), green or dry, do not decay easily and so do not provide good manure; they also kill earthworms. [V No 15] Another reason given for not using *Acacia auriculiformis* phyllodes as mulch was that it contained *Acacia auriculiformis* seeds leading to the spread of the plant and damage to the arecanut palms. [V No 16]

Villagers reported that during *Acacia auriculiformis* flowering, allergies and asthma are produced. When the British ODA representatives visited this village they replied that it was not true. [V No 15] Will the ODA please give us the basis on which this assurance was given?

The villagers say that plants like mango and jackfruit do not grow well, get weak and die, when surrounded by *Acacia auriculiformis*. [V No 15]

The villagers wanted a wide range of indigenous species, particularly medicinal species and those required for agricultural implements. [V No 20] After Acacia auriculiformis, the most numerous species are teak, casuarina and then a few other indigenous species. [VPS 29]

In the area which was mined, the villagers said that they would prefer \*sagavani to Acacia auriculiformis but the KFD replied that only Acacia auriculiformis would grow there. [VPS 13] This is absurd, considering that all types of natural forest plants were growing in the area. If the FD is correct, what one wonders was growing there before Acacia auriculiformis was brought into India a few years ago?

In some instances, the villagers did not mind the planting of Acacia auriculiformis, because the rest of the forest was still thick and natural and could provide for their essential requirements. [VPS 26]

In other cases, the officials did agree to reduce the number of Acacia auriculiformis plants to 30%. [VPS 25] But even this is not enough, since the villagers would have preferred no Acacia auriculiformis at all, but they had no choice.

In some meetings, when asked for a reduction in the number of Acacia auriculiformis plants, the KFD officials answered that the real aim of the plantations was to increase production of fuelwood only and they were ordered to do so. [V No 16]

When questioned about the loss of grazing, the KFD said that they were helpless and had to carry out the plan. [VPS 25] If this is correct where was the space left for participation?

Villagers \*often said that if the forest is left to itself there will be natural regrowth showing that reasonable grazing does not prevent regeneration. Natural regeneration is in fact hindered by the plantation of monocultures, reducing biodiversity of plants, animals, insects, etc, since Acacia auriculiformis and teak will not allow any other plant to grow under them.

Biodiversity can only be maximised when forests are left to regenerate by themselves. Such a goal cannot be achieved by a "planning and design process". [ODA FPP i] The latter's aim is merely to maximise bureaucracy.

The whole point of this planning and design process is to selectively interfere with the forests, again a technique contrary to the aims of natural regeneration and increasing biodiversity. No plantation, however mixed, can ever foster such aims.

A curious part of the project is the division of the whole forest area into zones. I: Ecologically important areas; II: Main forest with good potential; III: Main forests with pockets of settlements; IV: Edge of forest reserve, near settlements; and V: Outside forest, near settlements. [ODA FPP 5]

Zone IV is the edge of the forest, the interface with the village people. Zones II and III are the deep forests, which have mainly been logged. These zones are to be mapped and studied by the GIS,

with a high expenditure of time and money, much of the latter going back to the UK in the form of purchased computers and other hardware and software.

The division of the forest into various zones openly contradicts the statement that biodiversity is being promoted. All zones need to be equally protected, since the species of plants changes considerably from densely covered core areas to fringe scrub lands. River banks, altitude and other factors also make a difference. Nowhere is it stated that in any of the zones, the old growth forests will not be felled. They are being "protected" only so that they may be more lucratively felled in the future. If biodiversity is to be conserved, all areas need to be protected - mainly from the FD's voracious, termite-like appetite for timber. The conservation of biodiversity and the needs of a high consumption industrial society are incompatible.

During the preceding decades, there has been a progressive increase in demand of wood for paper, pulp and other industries. Monoculture plantations have been raised for cash crops such as cashew, coffee, rubber and tea. Not only have these reduced biodiversity but monocultures can be self-destructive. For instance, teak monocultures, which were first promoted by the British, suffers regularly from pests such *Eutectona machaeralis* (teak skeletoniser) and *Hyblaea puera* (teak defoliator). These occur, often in epidemic form, in almost all the teak growing areas in the Western Ghats and other localities. [Ghosh S 1982 Perils of monoculture. Indian Express 50 (286) : 8] In 1994, the teak defoliator moved into the mangroves around Bombay, causing extensive damage to the species *Avicennia marina*.

The history of the British and Karnataka FDs is mainly a continuous diminution of biodiversity, as natural growth was clear felled to be replaced by teak and other "commercial" species. Today, one can observe hills completely covered with *Acacia auriculiformis* and *casuarina* plantations. [V No 16]

The new ODA plantations show that there is no change in this direction at all. Villagers have objected to no avail to *Acacia auriculiformis* being planted in every available space leaving none for future betta needs. [V No 16][V No 16] Some villages are surrounded by *Acacia auriculiformis* plantations. [V No 24]

There is another possibility. Is the ODA project being financed and is biodiversity being conserved only so that the UK pharmaceutical firms have a special access to the species of India?

#### The Strategies

The project will achieve its objectives by a strategy based on four processes.

#### 1. "Assisting institutional development in KFD." [ODA FPP 3]

"The project aims to enhance and improve the management capability of KFD, and in particular enable it to respond to the conflicting demands from different users for access to the products and services of the forest areas." [ODA FPP 1]

The ODA is to provide funds for management, training and research. The project began on 1 April 1991. [ODA FPP 1

Since the KFD and previous forest departments have been chiefly responsible for the present situation, and since they have shown no signs of a major attitudinal shift, improving the KFD's management capability can only result in increasing its proficiency in the efficient destruction of the forests. Making the major exploiter of forests and people an institutionally better exploiter may increase financial returns, but goes against the next items listed.

Bureaucracy is built into the whole process, with a Consultative Committee, Advisory Committee, Steering Committee, and probably many others. [ODA FPP 8

2. "Ensuring poor people, women, tribals, and other disadvantaged groups who are substantially dependent on the forests are not worse, and preferably better off." [ODA FPP 3]  
Women

So, far all that the KFD has accomplished is to make them much worse off, by enclosing village grazing areas, depriving them of their other MFP collection, re-occupying land which has been used for cultivation. The people, particularly the landless and those with little land have been definitely made much poorer as will be described later.

Women are most affected by the availability of fuel with which to cook. The distance to which they need to travel to collect fuel daily has been increased in many villages by the conversion of the commons close to the village to ODA plantations. The type of wood used is of great importance, with the rate of burning and heat given out determining the time spent on cooking, while emissions in smoke determine the health of the women and others in the household. Women lament the fact that the species of trees in natural mixed forests which supplied nearly smokeless fuel have been destroyed by commercial demands. They have been replaced by monocultures of species - chosen by forestry "experts", that are seen as producing fuelwood plantations which maximize the kilocalories produced per hectare per year; their concern for women's health approaches zero. In addition, wood is preferred that does not produce too much heat, burns at the right speed and has other characteristics which only the women who did the cooking appreciated. Such species should be planted rather than those which merely grow fast or have a high fuel value.

A reduction in the availability of fuel could result in insufficiently cooked food, with a reduction in its nutritive value, and hence an effective decrease in food production.

Yet there has been no consultation with the women on the species to be grown, with *Acacia auriculiformis* often planted before the first VC meeting.

The tribals affected in this area are the Gowlis, the pastoralists. Their situation has also worsened after the commencement of the ODA project, as seen below.

3. "Minimising further loss of forest cover and resources, and the service they provide." [ODA FPP 3]

From the actions of the KFD, the accent seems to be on the resources provided, not the loss of forest cover, since even for the village plantations, existing naturally regenerated trees are being cleared. Moreover, it is also clear that the project envisages preventing the forest people from reducing forest cover only so that the KFD can do so more lucratively at a later stage.

4. "Increasing understanding of the Western Ghats eco-system." [ODA FPP 3]

An extremely complex ecosystem, such as a rain forest can, perhaps, never be understood even to the minimal extent where a particular intervention can be shown not to be harmful. Preserving the system, involves reducing intervention and leaving the system to evolve in its own time and in its own manner. In particular, there can be no rationale at all for planting exotic species such as *Acacia auriculiformis* and *Eucalyptus*.

Further, the ODA's stress on the "enhanced management capability" implies added interventions. This may be inherently unsustainable. Sustainability of the forests is inversely proportional to the felling by the KFD.

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Joint Forest Planning and Management (JFPM).

#### The Proposals

Considerable emphasis is being given to the JFPM aspect of the project. Could it possibly be because the villagers can be made into convenient scapegoats if - when - the project fails?

Since the whole project has been drawn up right down to "Planting Models" and "Micro Plans" the participation of the people is minimal, restricted to guarding the plantations only.

"Gap planting and enrichment: Three models are for gap planting and enrichment of the natural forest. These models are in response to the absence of regeneration of valuable timber species in over 75% of the area. In all cases indigenous species appropriate to the forest types will be used in with an aim of restoring the "natural" mix of the forest. [ODA FPP 9]

It is preposterous to state that planting a few specific species can restore the natural mix of a forest which normally contains many hundreds of species. The Gap models listed state the exact number of trees per hectare to be replanted. Specifications of fuelwood, fodder, green manure and fruit/NWFP models are given. [ODA FPP 9] The provision of such specific models contradict all apparent concerns with biodiversity and natural forests. The local people obtained all their requirements from natural forests, or rather, the local people according to Pre-British traditional management practices restricted their requirements to what could be sustainably obtained from natural forests. The very suggestion of models reveal that the ODA - or rather its British

experts - does not have a clue about the true multipurpose nature of nearly all species of forest trees, shrubs and herbs as well.

Open spaces are a part of all natural forests. Closing them up reduces biodiversity. The open spaces are produced naturally when mature trees die and fall. The clear spaces provide grass and other herbs for deer, feral cattle and other grazing species, these creatures being part of the forest's biodiversity. Further these clear spaces permit young plants to grow and so help in the continuous regeneration of the forest ecosystem, a fact that has been noticed to be missing by the ODA. [ODA FPP 9]

"Fuelwood model: with 50% of the area planted to fuelwood species which will be removed once the canopy cover has been established." [ODA FPP 9] This implies that there is no long-term aim to provide the local people with fuelwood.

"Silvicultural issues. Little is known about the medium-to-long-term behaviour of mixed plantations. It will therefore be important to monitor the results of different models very carefully and to draw on the experience of mixed plantations elsewhere, particularly the Social Forestry plantations in Karnataka and other States in India. The project will design trials to these ends. In certain circumstances, local environmental conditions may strongly favour initial planting of a limited range of trees, or even a mono-culture crop. Operational experience will help establish how far this can be reconciled with the need to offer a variety of trees to meet local needs." [ODA FPP 10]

If "little is known" about mixed plantations it is because of their complex interactions with other species and wildlife. Understanding the behaviour of natural forests is next to impossible. The Karnataka Social Forestry plantations have been particularly disastrous as they were mainly monocultures. How experience with monocultures can improve the understanding of mixed forests is incomprehensible. It is too much to hope that the ODA would have learnt from past experience how not to interfere in natural forests. But then, the real intention of the ODA and the KFD is purely to promote monocultures of "valuable" species.

A natural forest has its own intrinsic value, beyond the narrow perspective of revenue-yielding timber species. "Enrichment" of a natural forest is representative of the 'reductionist' paradigm propagated by western experts. [Strings: 8]

"Extension support. In certain areas and in particular the Sopinna Betta privileged lands, land degradation has resulted because private beneficiaries are reluctant to invest in forest areas in which they are unsure of long term right." [ODA FPP 10]

The urgent task is then to ensure their legal right to these lands. Further, the rights to the produce of the ODA plantations in villages should be legally ensured in perpetuity, but \*nothing is said regarding the position will be beyond ten years. Back to square one, with a little more of the forest enclosed?

"Micro-plans will be prepared in consultation with KFD. These associations will be well-placed to assess their needs, but may

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lack knowledge on the sustainable level of exploitation of their local forest resources. [ODA FPP 10

Can there be sustainable exploitation of forest resources?

"The fundamental instrument for delivering sustainability is Joint Forest Planning and Management (JFPM). ... Joint Planning - a consultative process by which KFD, local people, and other forest users jointly discuss the ecological and environmental condition of a specific area of the forest, and the scope for it to meet one or more of their specific needs." [ODA FPP 4

The intentions seem admirable, but the original plan of the ODA did not include JFPM at all. It was only the insistence of NGOs that this was made part of the project. However, it appears to be doing it under duress, since the very next paragraph reveals the true agenda:

"Management agreements will set out:

- the key services or investments to be jointly managed;
- the size and nature of the associations proposed for partnership arrangements;
- the principles of benefit sharing, and their application to the specific area covered;
- the pattern of support and technical advice which the JFPM teams will be able to provide the partner associations."

[ODA FPP 4

The project talks of local participation in conserving the forests but at the same time it also prescribes 'models' within which people are constrained to participate. These 'models' are mainly concerned with perpetuating commercial forestry values in Western Ghats. The ODA naturally claims that these 'prescriptions' are only 'suggestions', but the KFD officials assume them to be commandants. There cannot be a consultative process when the agenda has already been delimited and the resolutions already passed. [Strings: 3

"The project contains a number of mechanisms to facilitate this process, culminating in the annual joint KFD/ODA review." [ODA FPP 4] This review, however, carefully leaves out the local people.

As mentioned earlier, five forest zones have been identified. "Zones relate these management objectives to different forest sites." [ODA FPP 6] This a major technical "error" - essential for commercialisation - since all the zones are ecologically equally important.

It appears from this that suggestions by the local people will be restricted to the areas adjoining the edge of the forests only. The local people have been excluded from any interventions in the main forest areas, where the KFD is left free to fill in gaps in, "enrich" or even clear fell natural forests and to replace them with "valuable" monocultures, even though it may cause immense harm to their watersheds and immediate environmental conditions. Such exclusion also serves to deny access of local people to their survival needs. [Strings: 4

Out of the total forest area of over 800,000 hectares in Uttara Kannada (KFD: 1994), the project covers afforestation in 42,000

hectares only over a period of five years (WGFP: 1991). This is just over 5% of the total forest area of the district. With this relatively minor contribution, the ODA is able to influence the developmental policies and control the genetic resources of entire tropical forest in the district. [Strings: 19

"The fourth stage is the drawing up and registration of Management Contracts or Forest Agreements between KFD and user/community groups. This will legally establish villagers with a stake in the assets. It also avoids any weakening of KFD's ownership of forest land." [ODA FPP 6] This latter sentence is the crux of the programme. These contracts will further deny people's rights over their own common property. It is evident that the ODA has not yet realised the error of the ways of their British ancestors which initiated the problems - or perhaps, its intentions are the same.

"Non-Governmental Organisations (NGOs) can play an important role in assisting the JFPM process. The JFPM staff will need to identify and consult with existing NGOs, particularly with respect to the identification and formation of user and community groups. Further, NGOs have a role to play in the provision of information to these groups in order for them to be better able to plan with KFD." [ODA FPP 7] The NGOs' role appears to be limited to that of making the ODA's exploitative plans more palatable to the local people.

"The bottoms-up demand orientated planning process described under JFPM will require changes in the present practices and procedures of working plans. The micro-plans, will need to be prepared at greater resolution and will involve smaller and more dispersed areas, to be covered over longer periods. Further these plans will need to be co-ordinated and reconciled with more top-down long-term and centralised planning of areas to be managed for ecological purposes, for the provision of commercial timber and for fuelwood for urban and semi-urban populations. ... The present arrangement for 10 years working plans has fallen behind and many areas are now operating on the basis of annual working schedule." [ODA FPP 7]

There is no evidence that the micro-plans have been drawn up with the VCs. The bottoms-up planning should replace the top-down approach, as there is no proof that reconciliation of the approaches is possible. In India, traditional sustainability has been promoted on the basis of hundreds and even thousands of years, while the ODA mentions ten year plans! Moreover, the administration and its duties are all based on a top-down approach in spite of noises to the contrary.

"Community and Institutional monitoring ... will be the responsibility of the DCF (JFPM) and involve both the setting up of mechanisms (workshops and meetings) for feedback from both staff and community user groups, and the establishment of project milestones, for institutional development." [ODA FPP 8]

In the JFPM, the monitoring is to be carried out by the DCF, with no feedback directly from the people to the top bureaucrats. There is no chance given to any complaints by the people trickling up. Moreover, the DCFs and other FD officials who are

supposed to interact with the VCs appear to have no time to do so.

The basic problem, not mentioned anywhere, is that the local people are too frightened to even suggest or argue over what they really require against what the FD officials propose in the VC meetings. This is because the FD have - and use - their power to harass and impoverish them still further. To cooperate, requires a fundamental paradigm shift: the KFD have to realise that the forest and all that it contains belongs first to the local people, and only after their essential needs are satisfied, may it be used, again for essential needs only, of more distant peoples. No training in this aspect appears to have been proposed by the ODA.

The Government of Karnataka issued a Government Order (GO) on 12/4/1993 which empowers the KFD to implement the process of JFPM and to constitute Village Forest Committees (VFCs). Under this order sharing of the benefits under JFPM is also spelled out as follows:

- 50% to the Government (KFD)
- 25% to Beneficiaries of VFCs
- 25% to the Village Development Fund.

The process of being generous in sharing the benefits merely "legalises" the fact that the forest produce which originally wholly belonged to the local people, is now the property of the government. In its generosity, the government gives 25% of the produce of a small portion of the local forest area to the village members. The Village Development Fund should normally come from the government treasury, now it comes from the villagers' own pockets.

Moreover, the richer villagers are not dependent on the forest, yet they are to be given an equal share. In effect, this transfers wealth from the poor to the rich in each village where it operates. [Assessment 8] Whereas pre-British traditional access to the forest favoured the poor to the rich, this does precisely the opposite.

Although claiming to empower the village people, the GO ensures that control remains firmly in the hands of the KFD. This is done by insisting that the secretary of the Village Committees KFD \*Foresters. The secretaries are vested with almost arbitrary powers and is the only link between the VC and the KFD, there being no other official to whom the local people can appeal. [Assessment 9]

The actual implementation of the project will be carried out by other KFD officials, whose main purpose seems to be to maintain the KFD's role as policeman, the image through which it alienates people. [Assessment 11]

The project claims that the JFPM is the main means of implementing the programme, yet the area to be reafforested under the JFPM is just 8,500 ha of the 42,000 ha under the WGFP in Uttara Kannada. The JFPM is thus merely a facade behind which the KFD and ODA can continue their normal processes of degradation of the forests. [Assessment 49]

In practice, the Forest officials used several inducements to get the antagonistic people to join the Village Committees. The KFD assured the people that mature cashew plantations were included in the ODA area, with the crop being handed over to the JFPM. But this has not been done. [VPS 62] The KFD had also promised that the people would benefit from older cashewnut plantations outside the ODA area, though they were aware that these came under the jurisdiction of the Karnataka Cashew Development Corporation (KCDC). [VPS 65, 66] Since the promises were oral, when the contractor of the KCDC came to collect the nuts, they had no proof to show. [V No 21]

In the few villages where fuelwood is collected from the forest for market sale, the KFD had promised them employment, such as making beedies and working at the nursery. These jobs have not as yet been provided. [VPS 59, 62]

### The Plantations

A few examples of actual ODA plantations already accomplished are given below. These give a short history of the degradation, the actual planting, the species chosen, the operations of the village committees and the KFD. It will be seen that in every case the stated objectives of the ODA are being blatantly ignored and contradicted.

Plantations have been made in gaps in the natural forest, the gaps being natural or earlier created when the KFD clear felled existing forest or their own earlier plantations. In some cases, trees have been planted between eucalyptus stumps and villagers say that they will not grow well. [V No 25]

In all these "gaps" there was considerable natural regeneration. Some of areas clear felled earlier by the KFD, had fairly large trees in abundance. [VPS 23] These trees were uprooted to make way for monoculture plantations. [V No 20] This is proof enough that much damage has been done by the FD itself and that the forest can thrive without the FD's tender care.

The existing trees include thorny shrubs, probably \*Carissa, Euphorbia and Zizyphus species. Thorny shrubs are essential for ecological survival of the forest; they provide fruit and nesting sites for birds which drop seeds with packaged fertiliser for further growth; they provide protection for seedlings of big trees, preventing them being grazed upon. Biodiversity should include birds and beasts. Also the so-called gaps allow the growth of essential grass for deer and other grazers. Filling them all with big trees has already led to these animals moving out of the forests to destroy paddy and other crops. [VPS 36]

The 50 acre area planted at Barikoli was deforested about 15 years ago for a \*KPC (Kerala Power Corp?) camp, accommodating about 10,000 people. The purpose of the camp was to supply stones for the \*Kali project. The camp was closed about four years (\*year) back. Even in this stony ground natural regeneration had occurred yet the KFD insisted that only *Acacia auriculiformis* was suitable for the rocky soil. [VPS 7]

Most of the areas taken over for plantation were near the

villages and were used for grazing, fuel collection and manures, medicinal plants and other produce. The enclosing of these areas by the KFD has forced people to take their cattle much further for grazing and the women have to travel longer distances to collect fuel and other products. Areas adjacent to cultivated fields appear to have been specially selected by the KFD to prevent encroachment. In some cases, the men and women are now forced to travel up to 5 km for grazing and fuel. [VPS 54]

Some villagers said that they do not like thick forests near their houses because \*tigers will kill their cattle and wild pigs destroy their crops. [VPS 73]

In some cases, the ODA plantation was begun (and completed before the first meeting was called. This ensured that no objections and protests of the villagers to the location or the species planted could be entertained. [VPS 40] Where people objected to the ODA scheme, the KFD forcibly took over the land. [V No 21]

In most cases the villagers were not consulted regarding the location of the plantation. Most of them would have preferred the land to be left as it was for grazing. [VPS 12] It should be noted that the loss of grazing has been occurring for a considerable time as the KFD has consistently enclosed pastures by planting them with *Acacia auriculiformis* and other non-fodder species. [VPS 23]

In one village, land that has been "illegally" cultivated by villagers for generations was taken over about 5 years ago for KFD plantations. The people fought to retain their lands but were forced to surrender. [VPS 37] The paddy crops were replaced by bamboo plantations and other species on a smaller scale. But because the land was low lying it got flooded in the monsoon and while this is good for paddy, the planted trees all died. The villagers re-occupied the lands and applied for the land to be given to them, but they \*received no official reply. The KFD again evicted them for the ODA plantation, before the June 1993 rains. [VPS 38] The new plantations must suffer from the same fate. This shows that the KFD is merely interested in enclosing more of the villagers' space, even if no plantation will succeed in it. \*[Where have these displaced gone? Are they getting benefits from the ODA?

The villagers in this village want crop land since, with thick natural forests around them, they see no need of further plantations. They pointed out that there were several other gaps in the forest which could have been allotted to the ODA, instead of that used for paddy cultivation. [VPS 41, 42]

In some villages, the officials asked the committee members to convince those who had encroached on forest lands to vacate them, but they refused to do so, saying that it would lead to quarrels in the village. [V No 16]

In some cases old plantations established prior to 1993, have been converted to ODA plantations. [V No 20]

Plantation areas varied from 20 acres to 130 acres, with no relation to the village population or their actual needs. [VPS 11, 54, V No 25]

sort:

Around several of the villages there is sufficient natural forest in the region, and villagers insist that gap plantations are not required.

In one village, the plantation had been completed in June 1993, but the committee was formed only in October 1993 just before an ODA visit was due. The first meeting was held on 3.11.93 1993. Four ODA representatives visited the village on 7 November and a meeting was held. Translations were necessary both ways, and some of villagers' questions were not translated into English. [V No 15] A similar situation occurred in another village. [V No 18]

Even at the meetings, there was often no dialogue with the attitude, often openly expressed, that the KFD knows best what is good for the people. [VPS 5, 6]

Some meetings were held during the paddy harvesting and threshing periods, with consequent poor attendance. Satisfactory and full answers were not given to people, at times because the FD officials did not have the information. [V No 16]

After the first meeting, further monthly meetings were not held on the excuse that the special ranger appointed was on a tour of other villages. [V No 18]

Many of the villagers initially opposed the project and reluctantly agreed to it only because of the expected monetary benefits. [VPS 24]

In several villages most of the families became members. In several cases, receipts for fees have not been given yet, nor have members' by-law booklets and certificates. [VPS 31]

The VF Committee are supposed to be elected by the members, but they are more often selected by the KFD, with those who have worked for the FD being often preferred.

The KFD often made several promises, whether authorized to do so or not, in order to get agreement on ODA plantation issues. Among them they promised to arrange for free medical examination of the cattle of Timboli. [VPS 6] The KFD told villagers who protested against the enclosure of their grazing lands that they could use the rest of the forest till then. [VPS 12, 13, 46] The KFD officials promised to grow fodder on wastelands, to give fodder seeds to farmers. [V No 21] Since these were only an oral assurances, there is no guarantee that it would be permitted. In some villages the FFD has undertaken to repair and desilt village tanks. No work has been done to implement \*any of these promises.

When the problem of grazing land was raised in one committee, the KFD said that fodder plants would be grown in the gaps in the plantation, and will be distributed to the villagers. (Plants?) The KFD also promised that the old acacia plantations would be included in the ODA. [V No 15]

No elections were held to the committee, the members being selected. No certificates or booklets have been issued. [VPS 13] \*have they now?

Some villagers claimed that it would take 25 years or more for some indigenous species (Teak, rosewood [V No 17] to mature, so promising them 25% of the income after ten years is meaningless. Yet they had to protect these trees, too. The KFD officials had no answer to this, so promised them other benefits such as roofing tiles, electricity, borewells and health care for their cattle. [VPS 40] All of which are their due anyway.

In some cases the villagers have requested that older KFD teak plantations be included in the ODA, since the monetary benefits would accrue within ten years. This was agreed to orally but no documents were drawn up. [VPS 13]

There was no attempt to cater to the actual needs of the people, only their imagined ones. For instance, in some villages water is a problem with the result that women have to walk to sources half a kilometre away in the summer heat. [VPS 29] In another, the villagers requested to be given 2 acres of land each on the banks of a river passing through the village, but the officials said it was not in their power. [VPS 40] Such is need-fulfillment and participation.

Later, when the villagers asked for the promised tiles, they were told to go their MLA. The villagers usually used dry sugarcane leaves for their thatch, but that year sugarcane was not grown, so they were expecting the tiles. [VPS 41]

In one case, the officials promised irrigation on the hills to grow grass, but naturally, nothing has been done. [V No 19]

It is being said that the KFD has forgotten all its promises. [VPS 62?]

All the documents are kept either the officer who is the secretary of the VC. The villagers are not given details of the accounts. [VPS 79]

In most cases, there is no peoples' participation; the ODA area was identified by the KFD not by the people; people have their own ideas about the forest, but they have not been listened to. [VPS 79] The forest officials do not listen to what the villagers say, but the latter are afraid to protest because the former are in a position to harass them. [VPS 87]

The people felt that they could not decide anything which went against the officials.

In some places, the claims of the KFD that it had planted a specified number of seedlings was contested by the villagers. [V No 19]

In some cases, planting was done by an outside contractor<sup>1</sup>, not by employing the villagers. [V No 19]

According to the ODA the produce of the plantations should be divided between the people and the State. Yet in at least one village, the people were told that the plantation produce would be given to them at concessional rates only. [V No 20]

Where farmers are losing even their minimal grazing lands because of the ODA plantations, pleas of the people to leave the area for

village grazing, but they were ignored. The people have therefore lost interest in the scheme, so no meetings are held or committees appointed. They have refused to participate in the scheme or to guard the plantation.

In some cases the participation of the people has been limited to their agreeing not to graze their cattle or to cut the trees in the plantation area.

The KFD promised fuel by a pass system at reasonable rates. The plants would be cut after 10 years and sold. [V No 24]

The villagers feel that the FD officials are not giving full and correct information about the project and they are suspicious of it. [V No 25]

{At the implementation stage the project has forced the forest dwellers to 'participate' in commercial forestry activities. It has evacuated poorest people from their food growing land. It has violated the human rights by denying people access to their survival base. [Strings: Strings: 1

Fodder became a problem in the village only after *Acacia auriculiformis* were planted. [V No 16]

In Malavadi village, a big function was held in the last week of November 1993, at which there were 15 foreigners. [VPS 48] In this village the people had no real need of the ODA.

One villager said that if the money was given to them, they would form a good natural plantation with a nursery and give employment to villagers. [VPS 74] While the KFD talks about 10 year plans only, the farmers of this village claim that they see it in terms of long term survival. [VPS 84]

People felt that protection against smugglers of wood was required, with FD officials being in league with the former. [VPS 78, 86] In some places the villagers complained that fuelwood headloads are being confiscated by the forest guards, while teak smuggling goes on in broad daylight taken through the village. [V No 15]

The people say that developing forests should be restricted to areas where forest cover is scarce. Developing forests where forest cover exists is not essential. [VPS 85]

The main participation has been that of a few villagers working on the digging and trenching.

The people do not see any significant improvement in their situation in most villages. [V No 17]

No provision has been made for those who have lost their land. [V No 18]

The people know that KFD is only interested in ensuring its power over forest lands, not in the people. [V No 21]

There is a lot of corruption in the KFD, proof of which lies in its failure to stop open smuggling of timber. When a weak tree (due to the \*basari plant) is marked by the KFD for cutting by a

contractor, the latter will cut down a good tree near it, with the knowledge of the KFD officials. The KFD have failed to stop the smuggling of timber and so to protect the existing forests. [V No 21]

The WGFP was basically drafted by ODA Consultants in U.K. with perhaps, some participation of their Indian counterparts, the KFD. [Strings: 6] There is certainly no sign of any discussions with the people.

#### V Other Effects of the Plantations on the People

There is a loss of fuel and grazing, which will be permanent as the *Acacia auriculiformis* and teak will not allow any other plant to grow under them. There is a loss of wild foods, a reduction in manure, and MFP like hirda for sale.

Due to the loss of grazing area, the cattle are getting into farmers' fields causing disputes, and tension in the village.

In one area, the villagers report that from 1987 the FD began planting *Acacia auriculiformis* on a large scale, thereby destroying their common pasture lands. The landless were then forced to obtain their needs of manure and fuel from the betta lands, thus creating discord in the village.

In one village when the people voiced their concern that *Acacia auriculiformis* plantations would harm their interests, the KFD officials insisted that there was need for them. [V No 17] But not for the village itself, since fuel was not a problem there.

The people are also complaining about their loss of species which are useful for manures, such as matti, honagalalu, \*neralu, etc. [V No 18]

In most cases there was no serious effort made to involve the people, the whole process being treated as a mere formality. Was this official policy or individual official's lack of interest?

In some villages, the loss of encroached land has deprived people of their livelihood. They had told the KFD that they themselves would plant trees on their lands if given saplings, but the KFD did not accept the suggestion. The farmers are, therefore, \*planning to uproot the ODA plantation. These farmers opposed the FD officials with violence using poles and sickles, the officials in turn threatened them with loaded guns. No further meetings were then held because of these differences. [V No 19]

The selection of ODA plantation areas next to crop fields (in order to contain encroachment) encourages wild animals to destroy crops. A clear belt of about 100 m around their crop lands is essential to prevent this.

The rainfall in the region has been irregular in the recent past and the villagers blame it on plantations, claiming that if indigenous forest species were planted the rainfall pattern would be restored. [V No 20]

The people want their daily needs satisfied now, whereas they have been promised an unspecified income after three years.

{The Government Order specified formation of Village Forest Committees (VFC) in the villages to involve people in management of forest areas. The Secretary of the VFC is the official (Forester) from KFD (Karnataka Forest Department). He has been vested with all the powers including responsibility to keep records and maintain book of accounts. Thus, there is concentration of power on one person, that too from KFD.  
[Strings: 23

For all the penal rules mentioned above the appeal is only to higher KFD official. His decision is binding on the VFC and its members. [Strings: 24

.... studies (PSK, 1994, Annexe D) prepared by Parisara Sanmrakshana Kendra shows the level of people's participation in the villages where VFC's are formed under WGFP. [Strings: 27

At no point of time they (KFD) explained, about control, access and management of forest resources by the people. There is no discussion about the needs of biomass on which they survive.  
[Strings: 28

The FFP states that "The JFPM teams will consult with and jointly develop micro-plans with these local communities or user groups".  
[ODA FFP 6

That the micro plans are not drawn up with the help of villagers is revealed from the detailed calculations made for the fodder available in the forest, bunds and fields and for the fodder required. The figures are given to an precision of 0.25%. [MP Basapur 23

The calculations show that there is a shortfall of fodder. To meet the shortfall the Micro Plan suggests that improved varieties of grass be developed for use under irrigation. [MP Basapur 8] The possibility is small that new varieties can be developed within 3 years, the time for which the cattle will be deprived of their fodder available in the ODA plantation areas.

\*"The local people collect nearly 200 kg gum from Dindaga (Anogeissus latifolia) trees in an unscientific manner by setting fire at the bottom of tree. [MP Basapur 8] Their reason for not doing regular tapping could very well be that it is "illegal" and that burning is the only quick way of dodging the FD.

\*"At present villagers are cutting valuable saplings to meet demands of poles of their domestic use and this causes more damage to the valuable forest. To avoid this activity we have to educate and motivate villagers to use Bamboo instead of poles. But raising Bamboo plantation, demands for Bamboos can be met." [MP Basapur 12] The shortage of bamboo has arisen only because the bamboo has been sold - practically given away free - to pulp and paper industries.

Our main aim is to protect and promote natural regeneration by regulating cattle grazing. [MP Basapur 12] This is nonsense. Again and again, both the FD and the villagers mention that trees are being cut in the so-called barren areas taken over for ODA plantations, proving that natural regeneration occurs in spite of

continuous cattle grazing.

Further, the Micro Plan itself states that "...in plantation areas the firewood yielding species like Dinal, Acacia, Eucalyptus etc., seedlings are to be planted... [MP Basapur 14] How does the planting of saplings - up to 90% of which are exotic Acacia auriculiformis species - "protect and promote" natural regeneration?

The Micro Plan describes the FD's annual schedule for plantations. It is evidently the intention of the FD to convert of the whole of the 500 acres of forest land to plantations. [MP Basapur 15

"Most of the members are landless. In multipurpose plantation if MFP plants like Butea, Tumri (Diospyros species are raised, villagers can develop skills to prepare leaf plates out of Butea leaves. People can be taught to involve Beedi making employment and if sige (Acacia sinuata) plants are developed, the revenue of the villagers can be supplemented." [MP Basapur 14] Where sige plants do already grow, their produce is being auctioned to contractors. [VPS 23, 37

If the FD had the interests of the people at heart, it would stop its auctioning of forest produce and give back to the people their rights to collect all MPF, including those from which the FD obtains the most revenue. In spite of all the talk about concern for the people, this simple step is not taken.

In places, farmers have encroached on the forests for over 30 years to grow cashew, horse gram and groundnut. The KFD had planted other species in the area but they were uprooted twice. One farmer has obtained a court order requesting the FD to vacate the area. [V No 19

Whereas the people used to gather fuelwood, etc from the forests without affecting growth, the KFD now says that the plantations will be cut down after ten years. [VPS Village P p123

Participatory research should have been done prior to the start of the programme, with perhaps alternatives to the plantation method possible.

People are being impoverished now, but are being only promised future benefits. What do they do in the meantime and can the KFD be trusted to keep its promises and not break its contracts?

The reduction in grazing and other lands will lead to an increase in disputes and quarrels in the villages.

The reduction in area for grazing and leaf manure results in lower agricultural productivity. This impoverishes the farmers forcing them to encroach on forest land or to sell forest timber, thus providing positive feedback. The system is designed for forest destruction.

#### Training

\*"The ACF-JFPMs (5 per circle) will undergo training in the UK on existing short courses, covering the theory and rationale for

participatory planning, extension approaches and methods, social and economic dimensions of 'local needs' forestry, gender issues, and training and team building skills." [ODA FPP 14

What one wonders do UK "experts" know about the social and economic dimensions of local needs forestry, when all British experience has been in exploiting the local people and the national economy? Unless, of course, the unsaid agenda of the ODA is to continue the processes of exploitation initiated by colonial planned projects which were, only temporarily, rudely interrupted by independence.

"Experience of NGO's working in Karnataka in participatory approaches suggests three distinct training areas, in addition to forestry expertise:

- participatory methods of analysis (or appraisal) of local resources, need and potential, which take account of the different interests and perspectives of various groups within the area;

- the building up of confidence and commitment among members of the participatory community or group so that they come to 'own' the activity or programme that eventually evolves; and,

- stimulating and supporting the development of local groups.

[ODA FPP 14

Villages are usually well organised as cohesive entities. They know what they require, they know the situation as it exists and as it has existed for the last couple of hundred years. They have a mortal fear and total distrust of the FD since all that it has done is to take away their common property and impoverish them to the point where they are forced to become "criminals" in stealing their own property. How can an NGO assure the people that the KFD will not continue to do so, when the ODA publications themselves point to such intentions and the KFD has already enclosed further grazing areas in the villages where the project has been implemented?

"MYRADA, a Karnataka based NGO which has extensive experience of participatory appraisal and training in the fields of afforestation and watershed and wastelands development will be contracted to provide training for JFPM teams. [ODA FPP 14

Again, there is a fundamental misunderstanding. Natural regeneration merely requires leaving areas alone. Species have been observed to appear even when the nearest mature plant is more than 50 km away. [\*]

"Courses will cater for the different requirements of each zone and will include ecological forest management, manipulation of habitats, improved silvicultural techniques for commercial and artisanal species, management and silviculture of 'local needs' plantations, training and communication skills and fire protection." [ODA FPP 15

Ecological forest management is self-contradictory. All this shows that mention of biodiversity and natural regeneration is eyewash. Again the knowledge that UK "experts" have of specific local indigenous species is questionable.

"Research: The project will substantially increase and reorganise the research capability of KFD, as well as drawing on the

expertise of other research institutions within the state. ... To support the introduction of ecological research under the project a special short course on ecology will be designed for RFOs, including territorial RFOs working in ecological management areas who will be collaborating with FORTI (Forest Research & Training Institute) counterparts in data collection. [ODA FPP 15]

The disasters created by Western "progress" have resulted precisely from the West's insatiable need to "manage" natural processes. Who in the UK has sufficient knowledge to design such a course?

It is proposed to carry out ecological studies which are described in some detail. [ODA FPP 16]

They are in fact mainly to provide information on the effects of massive intervention, a process which is hardly ecological.

### Project Costs

The total project cost, before adjusting for inflation, is Rs 863,702,000 or £24 million. The local cost budget is Rs 711,746,000 or £19.771 million. [ODA FPP 18] About 17.5% of the total expenditure will be in the UK itself, yet Britain will take credit for this "aid" given.

Expenditure in sterling consists almost entirely of training and consultancy, although there is provision for the purchase of an Atomic Absorption Spectrometer. [ODA FPP 19] What the latter will contribute is not specified.

Only 17 KFD officials were initially assigned to be trained in the Draft Project document 1990. However in the final document the number has increased to 177. The costs shot up from Rs 7,75,000 in 1990 to Rs 1,80,20,000 in 1991. [Strings: 15]

The funds allocated to GIS was Rs 6,288,000 in 1990, however it was later increased to Rs 18,301,000. As reported in a study (Reddy: 1995) "The cost of software in India for GIS is Rs 400,000 and with all additional systems it is about Rs 500,000. The need for increased amount can only be ascribed to transfer pricing as practised by the garden variety of TNCs. [Strings: 16]

The KFD's total expenditure in 1988-89, the last year for which data is available was Rs 640 million. [ODA FPP 20] This is more than the amount contributed to the State exchequer of Rs 600 million. The huge amounts of money to be spent on the top heavy staff to be recruited would require, after the ODA abandons the project in 1996, still more extraction from the forests and/or exploitation of the local people.

### Benefits And Economic Analysis

Among the benefits mentioned are a "more economic choice of species/land use", and "more efficient silvicultural practices including improved species and seedling selection". [ODA FPP 23]

These cannot by any stretch of the imagination be considered natural regeneration. The project benefits listed are only those

that accrue to the KFD. In this section no benefit to the local people is mentioned - because there is effectively none.

"The gap planting models, representing long cycle species, were very sensitive to the discount rate, and showed low returns to new planting alone. However, when the return to the whole area, including the incremental productivity of existing stock which will be thinned at the time of gap planting is included the returns are considerably higher". [ODA FPP 23]

This is an admission that the ODA plantations by themselves are uneconomical from the KFD's point of view and that it is necessary to include the exploitation of the rest of the forest for it to be economical.

The majority of the saplings being planted till today in the ODA areas are of *Acacia auriculiformis*, a relatively fast growing species, normally grown on a 10 year cycle and which has poor coppicing ability. This is not a long cycle species. Further the thinning of the existing stock - mainly naturally regenerated - contradicts the claim that only gap planting will be carried out.

"Further, the benefits from the harvesting of dead and fallen material, at the time of planting, and which if set against project costs, would still produce a positive cash flow in each year of the project." [ODA FPP 24] This benefit, which is now accruing to the local people is to be transferred to the ODA project.

#### Conclusions And Sensitivity Analysis

"The critical factor in achieving these benefits is the protection of existing and new forest stock, by means of directly addressing the needs of those who depend on the forest, through direct involvement in planning and management. Otherwise the pressure on the forest will result in an increased absence of regeneration and further erosion of the capital stock." [ODA FPP 25] A survey of a number of villages shows that the "needs of those who depend on the forest" are being deliberately ignored by the KFD.

Much money (about Rs 21 million) will be spent on research on "tree improvement and seed production". [ODA FPP 39] Given the disastrous effects of such "improvement", in the agricultural field, such improvement cannot be considered advisable or ecological.

#### The Real Agenda

Among the non-forestry benefits listed is "CO2 absorption", which is valued at Rs 3000 per ha per annum. [WGFP FPP p 24] It could be that its real value accrues the UK rather than to India. With the emphasis on plantation of exotic species in forests with already having about 80% cover, it appears that a hidden agenda could be, the British Government's desire to claim the whole of the Karnataka forest area as compensatory carbon dioxide sequestration for continuing emissions in the UK. While there is no official agreement yet on compensatory forest plantation in

the Climate Change Convention, testing is allowed. The official policy is expected to come in 5-10 years time. [Hans Verholme, September 19, 1995]

\*The amount currently given to the State is about equal to that of the FD expenses: what should be the rightful income of the local people goes to support a self-interested bureaucracy.

It seems that the ODA scheme has been framed partly with the object of increasing revenue from the forests for the State, part of which will be used to support an increased forest bureaucracy.

On the other hand, the ODA funds for the WGFP go to the Central government, which then loans it to the Karnataka State at 6% interest. This money can only be recovered from the forest itself, which means even greater exploitation. [Strings: 16]

Moreover, once the aid is withdrawn the infrastructure and the huge bureaucracy built up will still need to be funded by the State, which means further forest exploitation. [Strings: 17]

#### Alternative Solutions

There are green \*hadis next to the ODA areas, showing that people will grow and protect plants if they have an interest in them. [V No 15]

In one village, it was stated by the VFC chairman that earlier the village had a committee which controlled 700 acres of thick forest, and distributed produce according to the needs of the villagers. This was disbanded by the KFD ten years ago, after which the forest disappeared. [V No 16]

The people referred to the older traditional control of the village forests and to the numerous trees growing on the betta lands. (The deforested betta lands seen by the ODA Livestock committee appear to be an exception, perhaps particularly selected by the KFD. [LM 1992: p 17]

There is other evidence of village initiative and cooperation. In one village there is a cooperative irrigation project run by the people themselves. Water is pumped to a tank from the river and from there fed to hadis, arecanut plantations, and sugarcane fields. [V No 18]

The people of Muroor went to court to protest against the KFD occupation of their common pastures for ODA plantations. They were a portion of betta lands for this purpose. [V No 16]

Only after the needs of all parties are satisfied will the forests be conserved. Unless, of course, the active promotion of the consumerist society by the mainstream induces them to join its exploitative bandwagon.

There is a clear conflict between the aims of maximising the income of the FD and increasing the welfare of the people who use the forest for their basic needs, as well as conserving the forests.

The ODA project in Karnataka, and other similar projects, infringe on the human rights to health, food and employment and hence on their rights to life itself.

If the Karnataka (and the Central and other State) government is concerned with the welfare of all its people, not only that of the already rich, then its forest and industrial policies need a complete overhaul.

If it is the intention of the State government to help the local people who have a prior right to the forest and its products, then the first step would be to restore their rights to collect, use and sell all MFPs. The major MFPs are now auctioned to contractors who employ the local people to collect them, paying them a pittance. The profits go entirely to the contractors and the KFD. The \*net income from this is only Rs 25 million, compared with the total revenue of Rs 600 million.

The middle men - the FDs - have to be removed, leaving the local people free access to the sustainable resources of the forest, such as manures and fuel for their own use as well as oilseeds, gums, medicinal plants, dyes and numerous products for their own use as well as for processing and sale. This will enormously increase village trade and artisanal employment and reduce pressure on agricultural land, and therefore on forests.

The country-wide ban on felling should remain in force, but timber should not be imported from Malaysia or any other country. This would merely be shifting environmental damage and injustice to another region. The urban elites who use too much wood will just have to reduce their wants to a minimum or use replacements. However, the replacements, based as they are on non-renewable resources will not be available for much longer. With fossil fuels set to run out in a few decades [see Indranet 1995 No \*] these will also not be available, perhaps in a short time. Though, in the meantime the forests should recover to a considerable extent, and a minimal quantity of timber could possibly be extracted.

This scenario needs major changes in lifestyle. The use of bamboo and forest trees for paper and pulp would need to be reduced drastically, which would mean in addition to the use of crops such as mesta (*Hibiscus cannabinus*) for paper, the quantity of paper used and wasted would need to be decreased, while recycling should increase. Traditionally, there was little furniture in Indian homes. People sat, ate and slept on the ground. It is essential we return to such sustainable practices. Houses themselves, will need to be of a minimum size, which would only be possible in rural areas. Cities are unsustainable anyway and will collapse when the fossil fuels run out or become more expensive, since they depend on the transport of food and other essentials from the rural areas.

Industry will also need to change since fossil fuels and raw materials will not be available. All production would need to be limited to renewable raw materials, mainly from plants. This is where the biodiversity of the forests is important. Even then, these raw materials would need to be extracted in minimal, sustainable quantities - certainly not enough to sustain a hyperconsumption society, but enough for everyone's basic needs.

Perhaps, the FD could have a role to play here, in documenting what species are available, how they were traditionally used and so on.

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#### SOURCES:

The data on villages was obtained from a survey of 25 villages. The opinions quoted may not have been universally expressed. It may be thought that since much of our data has been obtained from just one source, it could be biased or even factually wrong. However, the data has been checked by one of our team in a few villages and found to be correct. Further evidence has been recorded in video interviews with several affected farmers which have been made by an independent professional outfit from Bombay.

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Letter 7.7.95: Letter of CHS to Eric Hanley, ODA Delhi, of 7.7.95  
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**Terms of reference  
for an author's contract on**

***Joint Forest Management: an approach to sustainable forestry and rural development in institutional pluralistic environments***

Under the overall supervision of the Chief FORC, and under the direct supervision of the Forestry Extension Officer, and in close collaboration with the Agriculture Education Group of SDRE, the author(s) will prepare a background issues paper for a workshop on collaborative mechanisms for sustainable forestry and rural development in environments that are becoming more institutional complex. The author(s) will concentrate on the general issue of how joint forest management (JFM) concepts have been used to promote sustainable forestry and rural development among different stakeholders who have traditionally had a fairly conflictual relationship. The paper will also address how the technical and scientific basis of sustainability can be maintained in an such an environment.

**General background:**

Through processes such as decentralisation and liberalisation, the local environment for forestry, agriculture and rural development, including the decision making and policy formulation aspects, is becoming marked by a seemingly greater range of autonomous stakeholders who are more vocal, more empowered and more independent. This is true for a large number of both developing and developed countries and those in transition. The Earth Summit (UNCED, 1992) identified major groups necessary for sustainable development and encouraged the building of partnerships. Since in many cases governments are the dominant player in forestry and natural resource management this implied that government technical departments should reach out to other types of organisations and institutions within the framework of forest management. Of course activities in joint forest management pre-date UNCED, in some cases, by a number of years. Since 1992, the move toward forest management and rural development is becoming more and more demand driven. In other words many concerned organisations are no longer waiting for technical departments or expert authorities to offer partnerships but are demanding a greater role in decisions regarding local natural resource management and sustainable development. They are asserting their forestry autonomy and independence. In many cases government technical departments no longer completely dominate natural resource management but must be prepared to negotiate and compromise with multiple actors, and recognise other sources of power and decision-making. This is reinforced by current reductions in public funding of forestry and natural resource education and extension. The consequences of these new conditions are becoming evident only gradually, and offer dangers and risks as well as its potentials and opportunities.

**Terms of Reference**

Increasingly institutionally complex environments for forestry, agriculture and rural development may require a change in how relevant actors and institutions approach the concepts of sustainable forestry and rural development. For instance, there has been a recent trend away from governments as the sole owner, controller, and policy and decision maker on the use of forests. From command and control types of functions forest services have moved to partnerships and collaboration. The development of joint forest management is an example. However even more decentralised and pluralistic environments are putting pressures on these

types of approaches. Do partnerships, participation and joint management go far enough in satisfying the demands of various legitimate and autonomous stakeholders? The experience of joint forest management undoubtedly has lessons to take into consideration.

The paper will describe the concepts and give examples of joint forest management activities and programmes. The success and failures of these systems should be briefly noted. Ongoing trends should be described as well as future directions for joint forest management. The paper should deal with the issue of whether JFM constitutes power sharing or is a technique used by expert authorities like forest services to control forest management and local communities. Does JFM constitute delegation of authority from the forest department to villages and user groups? Have groups decided to take back some of the authority they have delegated to the expert authority to manage forest and other natural resources? Does JFM fully recognise the autonomy and independence of local groups and communities?

The development of the scientific basis and technical guidelines of sustainable forest management, and their application and enforcement, has traditionally the role of government. However since UNCED the bio-physical approach has increasingly come into question. In institutional situations where many actors or stakeholders are involved in forest management decision making, the scientific and technical basis for sustainability might be compromised. This paper should address the implications and relationships between a more pluralistic environment for forestry and the urgent need not only for technical and scientific standards but techniques for arriving at consensus on these standards and also of "enforcement" mechanisms.

The paper should explore the idea that while bio-physical laws place constraints on the social construction of nature and forested ecosystems, these systems seem so complex that the bounds are not so tight as to allow for a single, objectively knowable perspective. Within limits are the notions of carrying capacity and sustainable yield negotiable between forest resource stakeholders? What are these limits? Are there many alternative management plans and systems that are consistent with the available scientific evidence for a given forest? If there are multiple scenarios consistent with good science and forestry how should technical managers participate in the development of a local, collaboratively agreed on, perspective on the resource and its management?

In the case of joint forest management arrangements, has the expert authority accepted to negotiate the understanding of sustainability and sustainable yield? Is it assumed that the scientific and technical basis of sustainability can only be known by educated specialists in expert authorities? How does this effect the equity of joint forest management arrangements?

The paper should emphasize the local level and local communities including those groups most directly involved in natural resource management but sometimes separated from the formal development and enforcement of natural resource rules. The paper should assess how an increase in pluralism affects the technical and collaborative mechanisms for sustainable forest management and the mechanisms in place or options to assure that scientific and technical basis for sustainability is respected.

As a background/issues paper, the report should succinctly describe the recent trends in joint forest management as part of the trends in the development of participatory approaches through more collaborative and co-operative approaches to forestry. The paper should

address whether these "partnership approaches" are still relevant for the needs of sustainability and the contours of pluralistic and decentralised environments.

The paper should provide, if possible, examples and case studies. The paper as a whole should be of a nature to stimulate and structure debate. The paper should outline the major relevant factors and provide a summary of the critical issues. The paper should conclude with a limited set of practical suggestions and recommendations and key issues for assuring sustainability in pluralistic environments.

**Reporting:** The author will provide an annotated outline of the report for review and a final report of approximately 25 to 35 pages (excluding bibliography and annexes), single spaced in Word in both hard copy and diskette version.

**Deadline:** The deadline for delivery of the annotated outline is \_\_\_\_\_. The draft report is due \_\_\_\_\_ and the final corrected copy is due \_\_\_\_\_.

**Qualifications:** The author(s) should have a post-graduate degree in forestry or a closely related science. They must have familiarity with current discussions and debate regarding community forestry approaches and pluralism as well as sustainable forestry and natural resource management issues. Some practical field-level experience in sustainable forestry is important preferably in the developing or transition countries at the rural community level.