Executive summary

**Introduction:** Andhra Pradesh is the fifth largest State in geographical area and also the fifth largest State in forest area in the country. The state is a distinct geographical entity occupying the east central plateau of India with 23.20% of its area being under forests. These forest resources, as elsewhere in India, are under tremendous pressure due to increasing demands and therefore, suffer from degradation and denudation, resulting in poor socio-economic conditions and quality of life. Nearly 70% of the cultivated area is rain-fed. Erratic rainfall, low water table are limiting factors for intensive agriculture. The marginal returns and low yields have induced farmers to expand their agricultural holdings into areas of very poor potential, aggravating the problem of soil erosion. Most of the rural people are under-employed and hence the low per capita income and consequent poverty.

In the early 1990s soon after revision of forest policy during 1988, there was a major shift in focus of forest management in India in general and in Andhra Pradesh in particular. Forest management, which till then was on an Estate approach, soon was decentralized and Participatory Forest Management with active participation of forest dependent communities, especially the tribals was the new tool of forest management. It began in the form of Joint Forest Management (JFM) in 1992 through an order issued by the Government of Andhra Pradesh. It has grown into a massive movement with nearly 25% of State’s forests having been brought under JFM by the year 2000.

Joint Forest Management is a concept or a philosophy wherein all the forest dependent villagers of a given village or its hamlet/s organize themselves into a cohesive group with an objective of protecting, regenerating and managing the Forests in the vicinity of their village or hamlet/s. These cohesive groups so organized are called Vana Samrakshana Samithies (VSS). Since the forest dependent villagers, as a matter of fact belong to poor and weaker sections, fiscal, technical, managerial and moral support is provided by the Forest Department. The Forest Department also endeavors to coordinate with other wings of Government and other pressure groups for a holistic development of these villages and these communities. The VSS are assured of employment through forest development activities. The entire harvest is transferred to the VSS. They are however required to save and replough a certain amount earned through harvest and consequent sale of wood produce grown through their efforts on sustaining the initiatives initiated to improve the forests. Certain incentives for their active role in forest protection like a share in the fines collected from those found guilty of committing Forest offences and whom they apprehend are also in place. On its part the Forest Department after formation of these samithies conduct massive programs for capacity building, motivation campaigns, Participatory Rural Appraisal etc. In addition to development of forests, food security and livelihood support occupy important status in this approach.

Initially, there was lot of skepticism among the foresters about the effectiveness of this strategy as a solution for protection. This type of approach for managing forests was new to the people. Hence lot of effort was needed to convince the people about the assurances of the Government on the returns promised to the people, if they take up Joint Forest Management. With the passage of time, both the local people as well as the forest officials started seeing the visual impact of JFM in rejuvenating degraded forests, and the concept gained more acceptance. The success stories spread from one village to another village. What was started as a small initiative has today attained gigantic proportions with more and more forest fringe villages being involved in joint management of forests. From a mere 200 VSS in 1995, today there are more than 6700 VSSs in the state managing 1.68 million hectares of forest area.

The experience gained and the lessons learnt have promised an optimistic future. The forests that were fast degrading and depleting have begun to look up and improve. There has been appreciable improvement in forest density and quality. The initiative also has had
a direct positive bearing in the economic and social status of the forest dependent communities. These communities have had the advantage of increased family income. There has been increase in agricultural productivity and reduction in migration. These achievements have given confidence to the State’s decision makers and the result is that this new project will graduate from Joint Forest Management to Community Forest Management with focus on alleviating rural poverty through improved forest management and community development through participation of the stakeholders. The project seeks to usher in greater synergy between forest development and poverty alleviation through a democratized participatory approach and empowering forest dependent local communities. As sustainability is the key word, the project balances the local needs with external and environmental needs. This will be achieved through increased productivity of the forest resources, reduced dependence on forests through substitution of demand and alternate livelihood opportunities, upgradation of living standards and above all inculcating a sense of ownership and pride among the forest dependent communities engaged in CFM. It will also address the likely conflicts between the immediate and long-term needs by adequately educating the various stakeholders on sustainable management of forest resources.

**Legal & Institutional Environment and Forest Policy:** A detailed assessment of the existing Forest Policy, Legal and Institutional Environment in the context of the various initiatives and structural and process changes needed to achieve the stated objective of the project have been made. Conformity of the project to the World Bank Safeguard Policies has been made with special reference to indigenous people, voluntary resettlement and environment and pest management.

Tribals (indigenous people) constitute about 30% of the population targeted. Various issues pertaining to clarification of rights, issues peculiar to their development, strategies for their holistic development including natural resource management, livelihood support, capacity building, empowerment, participation in the processes of planning, implementation, monitoring and evaluation, mainstreaming and coordinating their development with other development initiatives of State and the Government of India have been assessed. A comprehensive tribal development strategy and a tribal development plan have been prepared.

The project objective is poverty alleviation through improved forest management and community participation. The project is unlikely to cause any displacement (partial or full) of the people. The project promotes economic development (including livelihood) of the people in the project areas. The property being managed is a common property resource. However as there is likelihood of individual livelihoods of some of the forest dependent members being adversely affected, strategies for warding off such hardships have been analyzed and provided. A framework for entitlement has been developed and strategies for such resettlements worked out.

A comprehensive and integrated Social and Environmental Assessment has been made wherein key issues for forestry sector in general and for the project in particular have been identified. Likely impacts with regard to these issues, framework for screening and measures to mitigate negative impacts and to enhance positive ones have been suggested. Guidelines for Environmental Management and Social Development, Institutional arrangements for the implementation, and M&E are provided.

Though the project does not provide for any direct investments in procurement or use of pesticides, there is remote possibility of escalation in pesticide use due to intensive agriculture and horticulture on one the hand and improvement in livelihood and incremental income among land owning members of the target group on the other. All anticipated impacts are indirect and marginal. However suitable strategies for integrated Pest Management have been suggested for warding off any such impacts.

**Legal Setting:** A review of the existing legal environment has been made. An analysis of the A P Forest Act 1967 and its scope and relevance to CFM has been made. The legal status of the institution of VSS and the MOU between VSS and the Forest Department also has been assessed. A frequently noted weakness in the legal framework for JFM is the absence of any legislation on the subject.
The entire program is built upon Orders issued by executive branches of Government, without clear linkages to enabling language in relevant legislation. The fact that Government Orders which are relatively easy to modify may have both positive and negative aspects. On one hand, this allows flexibility for a new program to adjust to circumstances as it goes along. The MOU annexed to the comprehensive order on JFM issued by the Government of Andhra Pradesh during 1996, is an undertaking by the Managing Committee of the VSS to perform various duties and responsibilities as detailed under the G.O., which include proper protection of forest and plantations. The benefit sharing is subject to a satisfactory performance of the duties and functions as prescribed under the Order.

Other relevant Rules framed under the A P Forest Ac 1967 that are relevant to CFM are:

a) A. P. Forest Offences (Compounding and Prosecution) Rules, 1969 regulating disposal of Forest Offence cases. The VSS members will have to be trained adequately in the matters dealing with such cases.

b) A. P. Forest Produce Transit Rules, 1970 regulating marketing of VSS forest products.

c) The A.P. Forest Minor Forest Produce (Regulation of Trade) Act, 1971. The A.P. Scheduled Areas Forest Minor Forest Produce (Regulation of Trade) Regulation, 1979 The A.P. Scheduled Areas Forest Minor Forest Produce (Regulation of Trade) Rules, 1990 regulating the trade of certain minor forest produce by creation of a state monopoly in such trade. The regulation referred is made under the V Schedule of the Constitution of India. The Government have appointed Girijan Co-operative Corporation Ltd., Visakhapatnam, as an agent for any scheduled areas for purchase of and trade in any minor forest produce.

d) The Panchayat Extension Act to Scheduled Areas (1996). Under the 73rd Constitutional Amendment Act, Panchayat has emerged as one of the potential stakeholders in forestry management and sharing of benefits derived from it. The panchayat is now empowered to legislate on matters specified in the Eleventh Schedule of the Constitution. Items relating to forestry include land improvement, soil conservation, watershed development, social forestry, farm forestry, minor forest produce, fuel and fodder. Juxtaposed to this scenario, the VSS has been given certain powers and responsibilities for managing forestlands with entitlement to some benefits like NTFP and timber and bamboo. Extension of this Act has wider implications on forest resources in tribal areas (as specified in the Fifth Schedule). The Gram Sabha or the Panchayat is endowed with right to ownership of NTFP. Further, the ownership to NTFP is granted to meet the bona fide requirements of local community. Endowing panchayat with the ownership of NTFP might result into competing claims with local community. In such event, the objective of the Act would conflict with the demands of local communities. Obviously, this would warrant suitable amendment of either JFM order or Panchayati Raj Act.

Institutional setting: Historically Forest Department has had a strong hierarchical line of command. The ‘Estate management’ nature of job and stress on forest protection has infused a policing approach, which essentially restricted public contact. However traditional system of forest protection basing on forest beats has depended heavily on support from local villagers and fear and respect for law. As years passed, there was dilution in public perceptions on conservation of natural resources. This and increased general lawlessness threw the traditional philosophy of forest protection out of gear. This, coupled with increased workload, has put the organizational structure and functionaries in the forest department under great strain. In this background the initiative of Joint Forest Management, which is now leading to Community Forest Management, basing entirely on participation of local forest dependent communities has provided a ray of hope. In the light of this, an analysis of strengths and weaknesses of the Forest Department and VSS has been made. Certain institutional reforms, restructuring and efforts for capacity building and empowerment are suggested.

Forest policy: The Indian Forest Policy has its genesis in British colonial rule. Forest management in India began with the policy on reservation of large extents of forested lands for forest management. Initially forest management had a limited purpose of exploiting the timber resources. Subsequently as more and more trained foresters started practicing scientific management of forests, it
gained importance. Concepts like normal forests, sustained yield, forest conservation etc. have evolved through years. A review of evolution of forest policy in India and in Andhra Pradesh has led to Community Forest Management is given below:

a) First forest policy, 1894 highlighting intention of the state to recognize forestry as a land use distinctly different from agriculture and earmarking area for such land use. The major objective was timber production. Meeting needs of local people was not on the top of list of priorities. This Policy paved way for legislation and the process of settlement that followed the reservation of forest areas. The Policy provided for state ownership and regulation and had very little for the local communities.

b) The 1952 Policy essentially affirming forestry as an important land use category, and insisting on one third of the country’s land area remaining under forest, elaborating the tenets on protecting hill slopes and land from degradation, desertification, and earning revenue from forests on sustainable basis. This policy quantified that at least 1/3rd of countries land shall be under forests. Here again commercial exploitation of the forests received preference and needs of the local communities received a back seat despite the fact that the Policy did mention the same.

Various states took a number of initiatives. Some of the issues relating to Andhra Pradesh are:

i. Abolishing system of forest contracts and encouraging departmental working.

ii. Establishment of Forest Development Corporations to attract investments.

iii. Social Forestry, Agro Forestry and Farm Forestry.

iv. Bio diversity conservation and enactment of a special Act for the purpose.

v. Widening the scope of Forest Laws to cover specific issues such as timber in transit, regulation of tree felling in private lands, regulating saw mills and timber depots in private sector etc.

vi. The Forest Conservation Act 1980 - a landmark in the history of forestry in India singularly responsible for containing the diversion of forestland for non-forestry use).

vii. Wasteland development. The National Waste Land Development Board was constituted in 1985 attracting the focus of the country on the urgency of need for afforestation.

c) The 1988 policy: The various initiatives taken were formalized in this Policy, highlight of which was however recognizing local villagers’ need for meeting their requirement for fuel, fodder, etc. The other feature is that the Government of India took upon itself the responsibility of approving management plans and thus heralded a regulation for reduction in tree felling. Green felling was discouraged unless its silvicultural necessity was proved.

d) As a sequel to 1988 Policy, the Government of India issued a circular for encouraging community participation in afforestation and management of degraded forests. This paved the way for the concept of Joint Forest Management. The Government of Andhra Pradesh adopted this philosophy of forest resources management through a Government Order during 1992.

e) Developments in the early 1990s witnessed a major shift in approach to forestry in India. The focus shifted from ‘estate management’ to ‘joint’ or ‘community management’. The Government of Andhra Pradesh came out with its state forest policy during 1993 focusing on participatory management of forests.

Focal theme of Forest Sector Vision is sustainable management of forest resources focusing on the protection and regeneration of forests and forestland. At the end of the decade, the role of foresters at least in respect to the participatory management of forests is likely to change. The forester is more likely to be a facilitator, a social mobiliser and an extension worker. Improved forests protection and management systems in place, reduced dependence on forests, self sufficiency of communities managing forests, greater transparency are the intended end results.

Past experience; lessons learnt - way for future: Joint Forest Management has been accepted as the central theme for all the forestry activities. State is providing budgetary support from all the possible sources. Even though the World Bank aided AP Forestry
Project gave a fillip to JFM subsequently the VSSs were supported from the funds by the district administration. The number of VSSs supported through the district funds was more than the number supported under APFP. Subsequently the state took a policy decision to support VSS activities under RIDF scheme of NABARD. Among other aspects of JFM, the following need a careful look:

- Joint Account System and transparency
- Involvement of NGOs
- Women Community Volunteers as instruments to address Gender issues

Following are the independent observations of the assessment team:

- Forestry and environment improvement can directly influence the poverty problem to a great extent. Challenge is how “to reach the unreached” or “the poorest of the poor” through their active participation in planning, implementation and monitoring.
- Rapport with the stakeholders by the Forest Department builds up the trust relationship. A viable micro plan, its implementation and concurrent monitoring by the stakeholders after understanding the situation and analyzing various factors then becomes the reality.
- Establishing and maintaining backward and forward linkages as well as integrating gender concerns for overall development of rural and tribal families can be better done in a group rather than an individual.
- With the increased and active involvement of local population, JFM has and can successfully conserve and improve the quality of the existing forests and plantations, as the forest area was and is under different stages of degradation. A portion of these areas can also be re-clothed effectively by taking up afforestation with commercially viable species by VSS. This would achieve three main objectives namely, improving the environment, creating employment and reaching the unreached population.
- Combined trainings/orientations/re-orientations/deliberations/ field exposures/inter-actions workshops are found to be quite effective tools for advocacy, capacity building, social mobilization, improving performance and skills of VSS members, NGOs and functionaries or facilitators.
- Integration of Forestry Micro-plan with Village Development Plan, Trial Development Plan and Resettlement Plan for rehabilitation of those who are likely to be adversely affected, would go a long way in effective and overall development of the village and the forests.
- Coverage, continuity and cost effectiveness of operations by VSSs for their own sustainability as well as for achieving the goals require top attention and consideration by the State and/ or district administration.
- Empowerment of women and addressing gender issues are very crucial for the success of the program.
- Environmental education, social mobilization, capacity building, awareness creation among VSS members as well as villagers along with frontline facilitators (functionaries) has significantly contributed to the whole process. It should be further strengthened or reinforced to keep up the tempo built, to sustain it and coordinate various process indicators and key performance indicators.
- Ensuring adequate preparedness in terms of policy, institutional and technological aspects before project expansion is crucial and vital.

Thrust areas for the successful implementation in future are:

- Sustainability
- Rehabilitation of degraded forests
- Improving rural economy
- Strengthening poverty alleviation initiatives
- Increased education and literacy
- Increasing agricultural productivity
- Improving communication and other infrastructures
• Land development on watershed basis including non-forest land
• Upgrading the skills of the rural artisans
• Dovetailing other rural and tribal development programs
• Marketing and processing of NTFPs
• Human Resource Development
• Coordination with other agencies
• Associating Non-Government Organizations.

Project Description: The project aims at upgrading the initiatives taken in the area of Participatory Forest Management from the concept of Joint Forest Management (JFM) to Community Forest Management (CFM). While JFM was more a partnership between the forest dependent communities and the GOAP, CFM will be more a democratic process through delegation of the decision making process and focuses at decentralizing the entire process of planning and implementation with APFD and GOAP acting more as facilitators and providers of technical and infrastructure support. There is therefore greater emphasis on capacity building and institutional strengthening.

Target population: The Project seeks to consolidate the participatory management efforts initiated and saturate the areas brought under community management with limited expansion to have effective focus.

• The selected districts represent the three major regions of Andhra Pradesh in terms of distribution of forest areas, forest types and agro-climatic conditions.

• Seven of the selected districts (Adilabad, Khammam, Karimnagar, Warangal, Nizamabad, Medak and Mahabubnagar) covering the Teak Forests belt are in the Northern region, four districts (Srikakulam, Vizianagaram, Visakhapatnam and East Godavari) are in the North Coastal area representing the transition belt between Teak and the Sal forests. These forests are rich in bio-diversity and lie in the eco-sensitive Eastern Ghats. The remaining three districts (Chittoor, Cuddapah and Nellore) are in the Southern region of the state representing Southern Tropical Dry Deciduous and Thorny Forests. These forests are a home to a number of endemic species like *Pterocarpus santalinus, Shorea talura* etc.

• These districts account for 77% of the forests of Andhra Pradesh.
• 82% of area presently under CFM in Andhra Pradesh and 78% VSSs functioning in the state are in these districts.
• The project focuses on 5000 villages (including hamlets).
• The project seeks to benefit 55000 families, living below poverty line. The total number of members targeted for assistance is around one million.
• About 20% of the members belong to Scheduled Castes and 35% belong to Scheduled Tribes (Indigenous People).
• Nearly 50% of the members are women.

Project Goal: The overall goal is to provide a sustained income to rural poor through sustainable management of natural resources, while improving the ecology and environment of the state. This goal is in tune with state’s Vision 2020.

Project objective: The development objective is to reduce rural poverty through improved forest management with community participation.

The project objective is sought to be achieved through a three-pronged strategy: (A) creation of enabling environment for community forest management, (B) community development and (C) forest management. Given below is a brief description of each of these components and activities proposed. An analysis of these activities with regard to their linkages and monitoring mechanisms and the associated risks and presumptions is made in the form of a logical framework separately.

A. Creation of enabling Environment for CFM: The objective of this component is to develop a conducive environment for community forest management, thereby improving livelihoods and reducing poverty. This component entails certain changes in the policy framework with regard to legal,
administrative and institutional issues. The activities contemplated include:

(a) Capacity Building of Implementing Agency: This includes training of staff, decentralization and delegation of powers to the front line staff and efficient time management, training in micro planning and financial management as well as silvicultural and other technical aspects of forestry and training in information technology are contemplated. Interactive seminars for information dissemination are planned. The existing training facilities at various training institutions will be strengthened. In addition, resources would also be drawn from the district level capacity building centers already set up by GOAP with the assistance of DFID.

(b) Capacity building and strengthening of community institutions: in the areas of training, study tours and exposure visits, policy changes, strengthening institutional framework and ensuring proper coordination mechanisms for efficient functioning. Training programs and the workshops would be at the Range and District level for aspects like financial and business management, treatment practices for forest management, harvesting and marketing issues etc. There will be adequate stress on value addition and market linkages. Apart from the officers and staff of the APFD, NGOs would play a key role in this activity. At the grass root level services of community coordinators or women community volunteers would go a long way in ensuring motivation and awareness campaigns and in monitoring and guiding the process of change. At the institutional level certain radical changes are contemplated in the direction of devolution of power to the communities and addressing gender issues. The managing committee of each VSS will comprise only of members of the community and will not have any representation of Government officials or NGOs. The Government officials and NGOs will form an advisory body to suit their changing role. There will be 50% representation by women. Each VSS, in addition to a Chairperson will also have a Vice Chairperson with either of them being a woman to address the gender issues.

(c) Policy changes: A number of key policy changes are expected to ensure that the project objective is achieved and development is sustained. Other policy changes planned are in the area of marketing, decentralization, utilization, sharing and reinvestment mechanisms etc.

(d) Monitoring and Evaluation: M&E would be used as a key instrument for tracking implementation progress and also to serve as useful feedback information to all stakeholders. A comprehensive M&E package for monitoring activities and impacts is planned by way of Forest Management Information System. M&E will be at three levels: (a) Internal monthly monitoring by the APFD resulting in monthly, quarterly, semi annual and annual reports: (b) Independent concurrent monitoring and evaluation by a third party with contractual arrangements using bench mark: and (c) A mid-term evaluation study prior to MTR and a post project study at implementation completion review.

B. Forest Management: The activities here are intended to improve forest management and improve returns to the community asset base. Following is a brief account of activities contemplated:

(a) Improvement of forests within and outside the designated forests through community management: A series of treatment practices have been suggested for improvement of forests. Rejuvenation of degraded Teak, Miscellaneous non teak hardwoods, bamboos and Red sander forests coupled with conservation and cultivation of species valued for their non timber and medicinal value and fodder species are planned. The technique of management of natural regeneration involves seedling coppicing of viable rootstock in the forests under treatment by cutting back flush to the ground and coppicing the high stumps and repeatedly clipping the resultant coppice shoots retaining the most promising ones. Coupled with this, repeated cutting back of rank growth and thorny bushes encourages the establishment and healthy growth of the coppice shoots that are retained. Fire and grazing management, and soil and moisture conservation works are the essential subsidiary silvicultural operations. Afforestation of village common lands and farmlands are the other activities that will be taken up under the project in areas outside the designated forests. A total of 315,800 ha is planned to be covered.
with such treatments under the project. In addition, maintenance and tending of a further extent of 70,000 ha of forest for which treatments were initiated prior to the project are also planned.

(b) Forest Inventory and Management Planning. A full-scale inventory of all production forests is planned during the fourth year of the project. The inventory design will consider the dynamics of the degraded forest being treated through VSSs and the need to establish reliable estimates of NTFPs, small timber and the regeneration potential. Identification and design of permanent sample plots for periodic measurement of forest growth and yield potential will be included.

(c) Research and Extension: To facilitate two-way communication between researchers and VSS members, a massive research and extension activities are planned. Broad areas are: Seed technology. Tree improvement and Forest management.

(d) Forest Management Information System: Computerization and development of an integrated computer-based MIS Package with due integration with spatial database is planned. Such a package will provide for assessment and analysis of performance at various levels and will link investments and inputs to productivity, production and outputs. Development of hi-tech connectivity for ensuring quick dissemination of data in the form of a web site and wide area network are planned.

C: Community Development: This component overall objective of the study is to examine social and environmental issues in the forestry sector in Andhra Pradesh and its implications on the project design and implementation including development of a comprehensive and effective environmental management and social development plan to enhance environmental and social objectives for mitigating the potential adverse impacts of the proposed project. The specific objectives are:

(a) Social aspects:
To identify various socio-economic factors influencing the living conditions of the forest dependent poor communities and examine its relation with the forest development
To identify all stakeholders and their roles and responsibilities.

Study objectives and methodology: The overall objective of the study is to examine social and environmental issues in the forestry sector in Andhra Pradesh and its implications on the project design and implementation including development of a comprehensive and effective environmental management and social development plan to enhance environmental and social objectives for mitigating the potential adverse impacts of the proposed project. The specific objectives are:

(a) Micro planning: A massive benchmarking and micro planning exercise through PRA will precede all investments in the VSS. A format in this respect is given in this report.

(b) Community infrastructure development: Development of critical physical and social infrastructure would be essential to inculcate, foster a sense of cohesion and togetherness and raise the motivation level of the VSS. This also ensures a proper rapport between the Forest Department and the VSS to engage the community on issues related to forest management. These investments would only complement similar efforts of other government agencies in the village.

(c) Income Generation Activities: This is aimed at reducing poverty among the landless and forest dependent families in the fringe villages by improving the skill base and providing avenues for alternative income generation. During the process of micro-plan preparation, the VSS would identify the most eligible marginalized individuals or households for income generation activities. The activities will be group based and the range of options will include NTFP processing as well as other non-farm activities.

(d) Fodder development. Development of silvipastures in and outside the designated forests and augmenting fodder resources will receive adequate attention. Fodder and livestock are inseparably linked. Appropriate mechanisms for coordination between Forest and Animal Husbandry Department at district, mandal and VSS levels are needed to ensure that fodder and pasture development activities to reduce pressure of grazing over the forest lands.
To assess socio-economic status of primary stakeholders and evolve strategies to deal with different groups.

To establish transparency and accountability norms and develop indicators for regular monitoring.

To establish a two-way communication for disseminating information to the interest groups and receiving feedback for maximizing benefit.

To identify the likely conflicts that may arise during implementation and suggest conflict resolution measures.

To assess the present status of women and suggest measures to enhance their involvement.

To study the land use pattern, tenure and customary rights of private and common properties; examine the existing legal aspects affecting such rights and suggest ways to address these issues including developing an entitlement framework.

To suggest ways for increasing the capacity of existing institutions for making the participatory process focal point of Project or nature of alternative institutions for establishing the process.

To assess the socio-economic implications of the practice of Podu cultivation vis-à-vis JFM and suggest ways for better land use and design measures to mitigate any adverse impact.

To assess the impact of JFM on other stakeholders including head loaders, cultivators, grazers and other forest dependent people.

Environmental Aspects:
To assess the present environmental status of the project area with special reference to forest resources, bio-diversity, soil moisture regime and intangible benefits of the forests.

To identify major environmental issues with respect to proposed sub-project interventions.

To identify monitoring indicators for assessment of impact of each sub-project intervention on identified environmental issues and suggest measures to mitigate adverse impacts, if any.

To develop environmental guidelines and procedures for screening proposed sub-project interventions.

To suggest a monitoring mechanism for ensuring environmental safeguards.

Methodology, approach and tools: For the purpose of this study, stratified random sampling technique was adopted. The districts were stratified based on number of VSSs and percentage of ST members in the VSSs in the district. Five districts representing these permutations and combinations were selected at random namely Medak, Srikakulam, Chittoor, Khammam and Visakhapatnam. From each of the selected district four VSSs were selected at random. Thus, the study was conducted in 20 VSSs among five districts of the state. Primary data were collected from VSS members with the help of a checklist. A separate schedule was used to collect data from individual encroachers. PRA and focus group discussion, individual interaction, joint walks in the forests and the villages were employed for collection of information. Discussion was also held with NGOs wherever available. Data collection from primary stakeholders was followed by discussion with relevant district officials and academicians in a specially convened meeting. After preparation of interim status report, two state and three regional level consultations were held through workshops with stakeholders with the objective of fine tuning of the report. This final report has incorporated the suggestions that have emerged during the consultations.

Social & Environmental Base Line: To determine the profile of the stakeholders, a framework was developed. This facilitated identification of the various stakeholders who are directly or indirectly associated with VSS. Family was taken as a unit of development. The rural society was seen as a congregation of several units of families, which ultimately has evolved, as the institution of VSSs. These VSSs may represent either the whole or a major part of village/hamlet/habitation. Based on the data collected through PRA and focus groups discussions, the socio-economic and cultural profile of the VSSs and other stakeholders, is presented. Secondary data is used, wherever necessary. Emphasis is laid on vulnerable groups and gender.

Environmental and Social Impacts, Screening and Assessment: Environmental
and social screening is aimed at identifying risks, issues and to assess the potential benefits and risks. An analysis of social and environmental concerns provides the trigger of mitigation and preventive measures. The problems have been identified through a consultative process and baseline survey. Key issues for forestry sector are: Podu cultivation, Encroachment of Forest lands, Head loaders, Migration of population from the forest fringe villages, Gender issues, Vulnerable groups, Resettlement issues, Issues dealing with indigenous (Tribal) people, Institutional issues, Legal issues, Grazing, Marketing of Wood and Non Timber Forest Produce, Sharing the usufruct and Planning reforms.

The main objective of this assessment is to ensure that development is sustainable with concomitant social development and minimum environmental degradation. Environmental aspects are not isolated since they have social implications, and social issues too in turn have environmental implications. In order to ascertain the impact of various environmental issues on the society, various key environmental and social issues are studied and projected. These issues have been identified through the baseline survey. The perceptions of the local people have also been taken into consideration through a consultative process. Further, this study provides an analysis of potential environmental and social concerns and their screening, which is aimed at identifying potential risks and assessing the potential risks and benefits duly analyzing the relevant mitigation measures.

Issues perceived by the people: During the consultative process, people’s views were elicited on various key issues that cropped up during JFM implementation and impact of withdrawal of JFM on social and environment development.

Potential benefits: The three activities contemplated in the present project under assessment are: Enabling Environment, Forest Management and Community Development. These will significantly contribute to environmental conservation and improvement of its productivity. The project will treat and protect the forests from further degradation. Vegetative cover treatments under the project through community management system, which involves the primary stakeholders, will enhance the status of fodder, fuel wood, NTFP and timber without adversely affecting the environment.

Potential risks: The CFM project objective and design will have no adverse impact on the environment, but ensure that various activities/interventions actually contribute to environmental conservation and prevent any environmental degradation. This will be possible if the project is implemented as per plan strictly following all aspects of design quality specifications and upkeep of maintenance issues.

Analysis of Alternatives: An analysis of the various options available for forest management through traditional forestry following Estate approach. Social forestry by extending forests beyond the limits of state, Joint Forest Management and Community Forest Management has been made. This revealed that the option involving community participation has greater advantages in that it ensures real participation of the communities that depend upon the forest resources, ensures holistic development of the community and has better chances of sustainability. The comparison of ‘With Project’ and ‘Without Project’ scenario also vividly reveals the advantages of going in for the Project at the present juncture. Though the investments made in JFM have resulted in general improvements in forests, it needs some more time and effort to ensure their sustainable management. Definitely the general level of awareness and appreciation of forests has improved, the communities involved in forest management need some more inputs in the form of training, capacity building, empowerment etc. The institution of VSSs also needs to be further strengthened with better structure and systems. The proposed Project addresses these areas, which are basically areas of consolidation and areas of transformation. Community Forest Management is the best alternative available to ensure the twin objectives of poverty alleviation and forest improvement.

Social Development & Environmental Management Plan: The overall approach is holistic development of the forests and forest dependent communities. The focus is on alleviation of rural poverty through integrated
development of diverse activities and their convergence through Collaboration, Cooperation, Coordination, Commitment of stakeholders, Convergence of various activities, Continuity, Cost effective measures and Conflict harmonization.

The productive potentials of the CFM will be reinforced through better forest management practices, dovetailing Information Technology in Monitoring and Evaluation and massive Extension efforts. It will be ensured that the identified vulnerable groups like the STs, SCs, BCs and women are mainstreamed in the process of planning, decision making, implementation, monitoring and evaluation and benefit sharing through targeted approaches, thereby reaching the hitherto un-reached. Equity will receive adequate focus. Adequate backward and forward linkages and intersectoral coordination at state, district, division and village level particularly with PRIs will ensure integrated development.

Social development strategies: The key issues in social development are those concerned with resettlement and economic rehabilitation apart from development of community assets, encouraging self employment together with skill upgradation and forward and backward linkages. All these issues in the context of Tribals have been addressed exclusively as separate chapters on Tribal Development.

Rehabilitation and Resettlement Framework: This study revealed two types of possible adverse impacts on livelihoods consequent to project implementation and of those families depending on cutting forest growth and selling as headloads of fuel and small timber for livelihood. It was noticed that encroachments have been caused mostly by the landless poor in Tribal tracts for eking their livelihood through cultivating dry agricultural crops on these encroached lands. Any recovery of such lands will have adverse impact on the livelihood of people dependent on such lands.

Entitlement Framework: Broad categories of affected families are:

i. Encroachers with land holding outside project area also.

ii. Encroachers totally dependent on encroached lands for their livelihood.

iii. Encroachers having other sources of livelihood

iv. People not willing to vacate encroached lands

v. People losing their house structures in the project area.

vi. Headloaders

Guidelines for Implementation

- At VSS Level, a VSS Advisory Committee will be constituted to facilitate implementation of rehabilitation activities.

- Voluntary surrender of land by the encroachers should accompany their consent letters, which will be certified by all the members of the Action Committee. Such families will be provided with alternate economic opportunities to help to set off their losses and restore their livelihood.

- The process of educating and motivating the occupants of forestlands will be carried out by VSS and NGO/Community Organizer.

- In cases where the occupants of forestlands are not willing to surrender their encroached forestlands, they should be encouraged to take up plantations in such lands. The sharing of benefits from such lands will be decided by the VSS in consultation with VSS members and affected families.

- In cases where the encroachers have sizeable operational holdings, outside the forest area, the approach will be to help them increase their farm earnings by providing irrigation facilities (where ever feasible), access to improved farm inputs and focused agricultural extension. They will also be supported with income generating activities. Where people have constructed houses on the encroached land in the project area, they will be provided with house site and housing as well under the housing scheme for the poor of the state government. In case of more than 20 families need to be relocated, a new housing site will have been developed with all necessary infrastructure and civic amenities.

- Those, who will be provided with
alternate income generating activities, will be supported with:
- Skill training for income generating activities
- Financial assistance (up to a maximum of Rs 25,000) to take up IGA
- Support to access bank loan
- Support from DIC and KVIC

Grievance Redressal Mechanism: Issues related to economic rehabilitation will also be addressed at different levels of grievance redressal mechanism (at Forest Section, ITDA/DFO and District).

Monitoring and Evaluation: There will be internal and external monitoring. The internal monitoring of physical and financial aspects will be done by the DFO at the divisional level. At VSS level, it will be carried out by the VSS with assistance from NGO/Community Organizer and Village Advisory Council.

Budget: At the project level, the cost of planning and implementation of rehabilitation activities will be part of the overall budget of the project. At VSS level, the cost of rehabilitation activities will constitute integral component of the micro plan.

Conflict harmonization strategies: A variety of conflicting situations either have already surfaced or are anticipated based on the present experiences in the implementation of JFM. The parties include passive and active members of VSS, non-participating villages, panchayat, NGO, VSS president, FD personnel and policies of the state. The sources of conflict are varied. It ranges from local political situation, power struggle, and management capability of VSS, sharing of benefits, forest protection mechanism, membership to VSS, perception of stakeholders to government policies. The study has gone into details of the following issues in this regard:
- Protection of forests,
- Privatization of forest land,
- Membership, Delegation of authority,
- Local politics,
- Benefit sharing,
- Priority and choice of stakeholders,
- Transparency, and
- Nature of NGO involvement.

An analysis of existing conflict harmonization mechanisms has been made and suggestions for their improvement have been given separately for intra VSS, between VSS, between members and non members of VSS, between VSS and Gram Panchayats, between VSS and FD, between VSS and NGOs.

Tribal Development Strategy: The Tribals, who are our contemporary ancestors are primarily forest dependent. Historically, they have been associated with forests well before the advent of scientific management of forestry and enunciation of forest policy in India. Though they are forest dependent, their welfare is not the concern of forest department. It is the subject matter of Tribal Welfare Department in the Governance scenario. This bureaucratic divide has resulted in conflicts and tension between forest management and tribal welfare and has been one of the reasons for forest depletion and slow pace of mainstreaming of the tribals.

Tribal development mechanisms in the context of this Project will have to work in close association with the existing Tribal Development Agencies like the ITDA, MADA, TRICOR and GCC duly supplementing their efforts where there are gaps. The Project will act as nodal and coordinating instrument in ensuring proper and efficient delivery of all ongoing welfare measures for overall upliftment of Tribal members of VSS. Any direct investment from the Project will be in the event of gaps only.

Issues: The underlying philosophy is to reduce the dependence of tribals on the forests for their economic subsistence to narrow the gap in the levels of development of tribal and non-tribal through socio-economic development and mainstreaming activities. The prime issues are:
- Access to resource
- Unemployment & under employment
- Traditional practices
- Low literacy
- Poor health cover
- Access to amenities, service, infrastructure
- Poor communication
- Cultural environment
- Low level of skill
- Unfavorable development environment
- Lack of market support
- Poor infrastructure
- Poor communication facilities
- Inadequate linkages and committed institutional support

Strategies for Tribal Development are: Social development
- Institutional development
- Economic development
- Development of natural resources
- Development of Village infrastructure

**Capacity Building Strategies:** The proposed graduation from JFM to the concept of CFM calls for massive efforts through extension, training programs and initiatives to trigger a change in the mind set. The hitherto led are slated to become the leaders. This requires sincere and concerted efforts from the Forest Department and the Communities. The silver line is that required institutions exist with a well-directed approach. What is needed is finding suitable catalysts for change and managing it when it happens. In this backdrop the component of capacity building assumes critical importance. Rightly the Project design has accorded a key status to this crucial activity in the first component of the Project, which envisages creation of enabling environment for CFM. The structures, the systems and the processes need attention and development for CFM to succeed.

**The Structure:** The present institutional structure of a VSS envisages a managing committee of 10 to 15 elected representatives from VSS of which atleast 30% shall be women. The concerned Forest Section Officer is the member-secretary. Other members include an officer nominated by P.O., ITDA, representatives from NGOs and others depending on the need and the Village Administrative Officer/ Village Development Officer/ Village Teacher as Ex-Officio member. The duration of this committee is two years and there will be an Memorandum of Understanding between the Forest Department and the VSS. Where NGOs participate in VSS activities, they also become signatories to the MOU. It is suggested that the managing committee is represented solely by the members of the VSS and that all the Government representatives from Forest and other Departments / agencies and NGOs play an advisory role. There should be increased representation for women (atleast 50%) and in addition to Chairperson, a Vice Chairperson is suggested. It may be ensured that either the Chairperson or the Vice Chairperson is a woman. The tenure of such a committee should be long enough for having proper impact and stability. Duties and responsibilities of all the partners and functionaries should be clearly spelt out and adequately canvassed. Proper linkages to other Self Help Groups and institutions that exist at the village level should be ensured preferably through the Panchayati Raj Institution.

**Systems:** Establishment of systems in VSS functioning are needed in respect of:

i. Financial management
ii. Maintenance of records of meetings and discussions
iii. Sharing of usufruct and equity
iv. Transparency in financial matters
v. Micro planning
vi. Cost sharing especially in respect of developing and maintaining community assets.

vii. Re-investments in forest management and village development build in economic self-reliance.

viii. Conflict resolution.
ix. Marketing and business administration.
x. Rural enterprise management

**Processes:** To make the Structure and Systems work well, the processes with adequate human interventions needed are:

i. Awareness building and motivation
ii. Imparting / upgrading skills
iii. Confidence building measures
iv. Transfer of powers and responsibilities for asset management
v. Planning and implementation
vi. Monitoring and Evaluation

Various training programs planned to address these issues and for other areas and components of the Project for the VSS, NGOs and Forest Staff are:

- Social mobilization
- Book-keeping, transparency and financial management
- Value addition and marketing of NTFP and medicinal plants
Monitoring and Evaluation

- Soil and Moisture Conservation
- Conflict avoidance and resolutions
- Gender issues
- Information technology
- Extension methodology and communication skills
- Management of Change.
- PRA and participatory micro planning
- Participatory forest management
- Modern nursery and
- Silvicultural technology

The training programs and the workshops on above themes are planned at the Range and Division level and a few selected programs at Circle level and specialized programs at state level at the A.P. Forest Academy, Dullapalli. In addition, the A P School of Forestry Yellandu and the Regional Research Centers at Rajahmundry, Tirupathi and Warangal are proposed for up-gradation to meet the massive training requirements.

In addition to these, in house trainings, study tours and exposure visits are planned to provide first hand information to the stakeholders.

Capacity of the Forest Department in terms of staff strength: The vacancies of the front line staff at the interface level with the community in respect of Forest Section Officers, Beat Officers and Asst. Beat Officers are very large and this is an area that might affect the efficiency of the Forest Departments as they are the key implementing staff. This has been so owing to the Government's policy of ban on recruitment. This issue needs to be addressed as it can have a vital impact on the project. Mechanisms of buttressing the Forest Department's capacity through selective special recruitment, sharing the responsibilities with NGOs, engaging assistance of community coordinators and women community volunteers.

Empowerment of Front Line Staff: As of now, the Forest Section Officer is the member secretary of the VSS. The Beat Officer at the next level, though being a member of VSS plays only a secondary role. This situation could be changed with the Beat Officers taking up independent responsibility for smaller VSS. This would increase the capacity of the front line staff to give attention to the development of VSS and guide them to the implementation of the concept of CFM.

Simplification of Paper work: The staff is often overburdened with unproductive paper work, resulting in taking away the time, which could be utilized effectively. Pragmatic time and work management measures are likely to infuse efficiency in the system. Proper delegation of powers and decentralization of decision making processes will also be helpful.

Environmental management strategies: The major component here will be forest development and environmental management. What is referred here is the physical environment dealing mostly with forests. The various developmental initiatives for forest improvement are dealt in detail.

Environmental monitoring design through measurable indicators is also suggested.

Environmental scoping: The scoping exercise, undertaken through process of consultations and focus group discussions and analysis of secondary data indicated the following areas that need special attention:

- Environmental Awareness: Generally, it is low at the VSS level and needs focus in training courses and awareness campaigns.
- Environmental Knowledge Base: The environmental knowledge-base is poor, sharing of information to help get a complete picture of environmental issues in a spatial context is extremely difficult, sharing and communicating information to various stakeholders is limited. Development of a knowledge sharing mechanism needs development.
- Institutional Capacity: The capacity of APFD and VSS in integrating environmental information into decision-making needs upgradation. Access to expertise and effective partnerships in mainstreaming environmental issues into their functioning needs focus.
- Holistic approach: Development following a holistic approach has been found missing in all the earlier efforts. However the present Project mainstreams a mechanism for intersectoral coordination at various levels including the one at the crucial village level. Well thought out vertical and horizontal flow of information would ensure holistic development.

- Policy, Legal and Institutional Reforms: A series of Policy changes, Legal reforms and Institutional restructuring are duly
contemplated to ensure focus on the development agenda of the Project.

- Consultation: The process of consultation with and amongst stakeholders especially at VSS level and with NGOs is of a fairly high order. The process should continue in its present form with greater clarity of agenda for holistic planning and development at grass-root level.

- Transparency: Ensuring transparency is vital to enhance institutional credibility and in avoidance of conflicts. The system of display of the Income and Expenditure accounts of the VSS at prominent places of assembly in the village in practice at present may serve limited purpose owing to illiteracy and lack of a holistic approach among villagers. Frequent meetings and sharing of information and appraisal by the management of the VSS would go a long way in ensuring this. Joint walks with the villagers and members in the course of visiting Project sites will not only build confidence among members but will also give an opportunity to elicit information directly from a cross section of members and enhances level of transparency in decision making and implementation process apart from being an effective means of concurrent process monitoring.

Forest improvement: Various management techniques that were practiced in Andhra Pradesh can be categorized into those dealing with natural re-generation and those dealing with artificial regeneration. Management of natural regeneration has been practiced since the beginning of the scientific management of forests. This is done through canopy manipulations wherein the canopies were opened to encourage establishment of natural regeneration, silvicultural systems like the Selection system, the coppice with standards and the coppice with reserves also encouraged natural regeneration. Though these systems are highly cost effective, they invariably result in future crop comprising mostly of predominant and dominant species to the disadvantage of a number of other species. The species that dominated were not necessarily the most valuable and desired ones. Artificial regeneration wherein the existing natural stand is either supplemented with or replaced by one or a combination of desired species, ensures enrichment of forest systems. As these operations need huge initial investments, they can be practiced over limited extents.

Silvicultural treatment and management of forests covered under the project broadly follow these principles with suitable modifications to suit the site-specific requirements. In small pockets devoid of viable rootstock of desired species and where favorable site conditions are available like fertile soils with good moisture retention capacity and feasibility of providing supplementary irrigation from nearby water source, intensive management through planting genetically superior high yielding Non Wood Forest Products and species valued for their medicinal properties are to be taken up with adequate land preparation. Forests covered under the Andhra Pradesh Community Forest Management Project can be broadly categorized into:

- Teak Forests
- Non Teak Miscellaneous Hardwood Forests
- Red Sanders Forests
- Open and Scrub Forests
- Bamboo Forests

In reality however, these forest classes occur either singly or in combination. The scrub forests would be converted through afforestation with NTFP, medicinal plants and fodder species.

Details of silvicultural interventions needed for rejuvenation of natural regeneration like cutting back, coppicing and singling viable root stock, tending and shrub and climber cutting, decongestion and mounding bamboo clumps, nursery and plantation technology for artificial regeneration, fire protection, soil and moisture conservation strategies etc. have been dealt in great details.

Pest management strategies: The proposed project does not finance or support any pesticide as part of any project activity. However, the pest management plan has been developed to ensure that any anticipated induced impacts of the project more in the form of spin-offs like increased use of pesticides due to intensified agricultural practices among the land owning members of the communities supported through this Project, intensive plantation activity owing to economic reasons etc. are adequately addressed during and beyond the Project implementation. This plan is completely
consistent with concepts of organic farming and promotion of Integrated Pest Management. The three fundamental goals of IPM are (a) safety, (b) cost effectiveness and (c) durability. They are kept in view in developing the pest management plan, which is appropriate in a forestry situation. The strategies suggested here to guard against any possible abuse of pesticides are in tune with the Integrated Pest Management Strategy followed under similar situations.

- Building awareness about the health hazards of misuse and mishandling of chemical pesticides and the need for IPM
- Building awareness about the use of IPM techniques
- Collation and dissemination of appropriate indigenous technical knowledge
- Promoting the use of biological control
- Rearranging nursery and plantation activity cycle to avoid those stages when insect populations assume status of pests
- Integration of IPM into Packages of Practices for the area.
- Building partnerships with private sector and NGOs to assist in IPM extension services development
- Website development in local languages, advisory services and extension
- Improving the information and knowledge base on pests, chemical pesticide use, banned chemical use, health impacts, IPM use and trends in a spatial context using GIS.

**Institutional Reforms:** Institutions are both individuals/organizations and the framework of policy, law, convention and culture within which they operate. They are the arrangements to undertake specific activities. Time has come for the institutions to emerge as development agents to advocate, promote, provide a platform for dialogue and encourage empowerment and decentralization besides providing awareness, basic skill and knowledge. An effective institutional arrangement is essential to achieve the success of the project, especially as a large number of stakeholders are involved in planning and decision making. Some of the reforms suggested are:

- CFM should work through the existing structure, but sufficient capacity should be introduced within the VSS to sustain and expand the project-induced processes. These are to be organically linked with the PRIs to ensure accountability and transparency and further supported to take full advantage of other ongoing projects/schemes.
- At present VSSs have been formed as a result of a G.O. not backed by law. It is better to remove administrative discretion by enacting a suitable legislation to cover CFM.
- Entry of new members into a VSS needs to be regulated as it has potential for conflicts.
- To ensure effective and active participation by women in VSS affairs, a quorum for the presence of women in the general body and/or managing committee meetings is to be fixed.
- As per the present practice, the secretary of the VSS (Forest Section Officer) and the VSS president jointly operate the bank account. This arrangement needs to be made more democratic (and less bureaucratic) to guard against any misuse of funds.
- There is an imminent need to look beyond the period of the present project and ensure future investment, if needed. The issue of mobilizing and harnessing social capital beyond the demands of the project, needs to be examined carefully.
- CFM is likely to have challenges in the area of conflict management. However, rather than institutionalize such management, local skills and initiative should be developed to deal with conflicts as and when they arise.

**Implementation Arrangements:** The Government of Andhra Pradesh through its Forest Department will be the implementing agency. Implementation of the Project will be steered and monitored through a Project Monitoring Unit (PMU) under the overall leadership of the Principal Chief Conservator.
of Forests of Andhra Pradesh (PCCF). However the day to day affairs will be attended to by the PMU headed by a Project Director (of the rank of Additional Principal Chief Conservator of Forests / Chief Conservator of Forests) and assisted by three Conservators of Forests to look after Monitoring and Evaluation, Procurement, Disbursement and Reimbursements and General affairs and Issues. with DCFs/ ACFs, FROs and supporting staff. This project unit will be responsible for coordination and monitoring and reporting. The respective field units of the Forest Department will implement the project activities. The activities of capacity building and training will be coordinated by the Conservator of Forests and Director, A P Forest Academy Dullapalli. The Conservator of Forests (Research and Development) will coordinate the activity of Applied Research and Extension. The governance structure sets out the decision-making powers and responsibilities for different agencies and at different levels

Vana Samrakshana Samithies: Vana Samrakshana Samithies (VSS) or Village Forest Protection Committees are the grass root level organizations which will be the principal instruments in channelizing all the direct investments of the Project. These VSS function through a managing committee, which is an elected body of 10 to 15 members with a Chairperson as its executive head.

Non Governmental Organizations (NGOs): Owing to the massive nature of process change involved and limitations of the Forest Department to handle the same, NGOs will have to assume a proactive role. They will be required to play major role in areas of social mobilization, awareness campaigns, motivation, capacity building, value addition and market support, micro planning etc. In places where NGOs are not available, Community Facilitators will have to be engaged for the same purpose. In each village a volunteer, to ensure delivery of intended services and as instruments of monitoring the processes, may be engaged.

Regional Geomatics Centres: In the APFP three Regional Geomatics Centres were set up at Rajahmundry, Kurnool and Warangal. Three more centres are proposed to be set up at Adilabad, Visakhapatnam and Tirupathi. These Regional centres will be the nerve centres for monitoring the performance of various components and activities apart from their assigned role in processing remote sensing and GIS data. They will also act as nodal agencies for monitoring implementation of FMIS.

APFA, Dullapalli: Since the project lays lot of emphasis on capacity building and HRD, the APFA, Dullapalli will have to be sufficiently strengthened. To supplement this Academy, the A P School of Forestry Yellandu and the three Regional Research Centres at Rajahmundry, Tirupathi and Warangal will also have to be sufficiently upgraded.

Intersectoral coordination: The primary concern of the project is poverty alleviation through forest development. The approach to achieve this objective is through community action and multi sectoral co-ordination by way of technical and financial inputs. An institutional mechanism is desirable at various levels to ensure proper coordination in achieving holistic development. Such coordination is vital at Village, Division, District and State levels.

Intersectoral coordination committees that exist at ITDA level, District level and State level are to be revitalized for ensuring proper coordination among various interest groups and stakeholders and line departments. In addition, a committee at Forest Division level under the DFO is suggested to ease the load on the committee under the chairmanship of District Collector, who is otherwise overloaded with multifarious duties. These committees with members from other line Departments/ Agencies like the Rural Development, Social Welfare, Tribal Welfare, Agriculture, Horticulture, Animal Husbandry, Rural Energy, Health & Sanitation, Family Welfare and a host of NGOs working in these areas and the VSS can ensure proper coordination for holistic development. At village level, coordination will be ensured through Panchayati Raj Institutions and the VSS Advisory Committee.

Monitoring and Evaluation: The CFM project should be able to provide a learning platform to various stakeholders to develop more sustainable and integrated working relationships and results to enable the management to be continuously adaptive in its approach to achieve the development objective. Therefore a comprehensive and
participatory system is to be adopted. A four stage M&E system is proposed here.
- **Input and Output Monitoring**
- **Process Monitoring**
- **Performance Monitoring**
- **Impact Assessment/Evaluation**

**Input and Output Monitoring:** The objective is to ensure that inputs are delivered in time and the processes are in place. In case any problem is encountered, this could serve as an early warning for taking corrective measures. The reports from the field are consolidated at higher levels. These form the basis of implementation monitoring. The financial indicators need to be seen along with physical indicators to ensure that the funds disbursed have actually been utilized. These indicators are monitored, generally at three levels, namely village or VSS level, district level and state level. At the lower level, all project activities are recorded, like area covered, work carried out to improve overall productivity and environment. At district level, the information provided by VSSs are compiled and random sampling carried out to verify, covering all selected VSS areas. At state level, PMU do continuous monitoring to achieve the required goals in terms of quality and targets set. Further strengthening the existing PMU is very vital. PMU then would become responsible for overall planning, monitoring and consolidating the achievements for advising the state besides financial management and control.

**Process Monitoring:** The sustainability of infrastructure and institutions created under the Project is now the prime concern for the stakeholders. Some of the indicators are – frequency of meetings of Management Committees and General Bodies, level of attendance, repair and maintenance of infrastructure, gender involvement, transparency of actions, participative levels, conflicts resolutions etc. Attitudes and behavior patterns are very important from sustainability point of view. Based on the trends in forest areas and villages, as well as socio-economic environment of the stakeholders and the consultative process, the key indicators are.

**Performance Monitoring:** Keeping in view the specific objectives of CFM, sample matrix is provided by component, the performance indicators and critical assumptions:

**Impact assessment/evaluation:** As a part of the M&E system, it is very important to establish the net impact of the CFM on socio-economic indicators, poverty and population. For meaningful participatory M&E process, appropriate indicators at the field level need to be identified so that the stakeholders and the local communities themselves are able to assess the impact of the activities. A few preliminary field level impact indicators are to be clearly generated in consultation with all the stakeholders. The communities can evaluate these indicators themselves and the benefits when evident will provide them greater incentive to protect their access and maintain them.

**Institutional arrangement for Monitoring and Evaluation:** The PMU will be overall in charge of monitoring all the components of the Project. It will establish a centralized database and periodically update it. In the Field, the Regional Geomatics Centres will assist the PMU. These centres, while coordinating the various initiatives in the field of Geomatics like Remote Sensing applications, creation and updating of GIS database etc., will also take up implementation of FMIS and monitoring the Project activities. These Regional Geomatics Centers will function under the supervision of the respective CFs who will provide the required logistics.

A computerized Monitoring package will be developed which will be installed in all the Ranges, Divisions, Circles, Regional Geomatics Centres and in the PMU. It will be comprehensive package covering all the Project components and activities. It will therefore be essential to have sufficiently trained manpower to provide the required support to make the package operational. It is in this background that services of specialists (Project Scientists) will be utilized. They will be engaged for a period of 3 years, by which time the staff of APFD will acquire the required skills to handle the monitoring package. Women Community Volunteers will be engaged as extension workers and for assistance in monitoring the Project activities.

**Micro-planning:** Planning process occupies an important slot in forest management. The system of working plans is a well-established and institutionalized process in drawing up long term and short-term strategies in forest management. Community participation has
shifted the focus of planning from division level to village level. Micro plans are village level plans that are an integral part of community forest management. However, to institutionalize this decentralized planning process and to thwart possible conflicts between working plans and micro-plans, suitable measures are suggested. As the entire exercise of microplanning is in the process of evolution, it will have to be ensured that the aspirations of the Communities expressed in the micro plans are not in conflict with the silvicultural prescriptions of the working plans. Since the working plans are larger documents covering larger areas including the areas covered by the micro plans, it would be necessary that working plans lay broad and practical guidelines for silvicultural treatment of the forests. Site specific planning duly incorporating the needs and aspirations of the Communities involved in Community Forest Management under the umbrella of the silvicultural details, as prescribed by the working plans, can be the domain of the Micro-plans.

With the inception of Joint Forest Management, Rapid and Participatory Rural Appraisal techniques, Baseline surveys and Benchmarking and Micro planning has received attention. However, it was noticed there is no uniformity and totality in approach. Most of the micro plans prepared are project specific and address the issues that the concerned projects support and address. Consequently, there are lot of gaps and there is little scope for holistic development of villages in general and the VSS in particular. To have uniformity and objectiveness, a format for a Micro plan is suggested in the report.