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Orissa Forestry Sector Development Project

Project Memorandum

2006

PREFACE

Considering the need for enhancing the livelihood options of the people living in and around forests and rejuvenating degraded forests, the State Government have launched the Orissa forestry Sector Development Project (OFSDP) with the support from the Japan Bank for International Cooperation (JBIC). A memorandum on the “project” between the Forest & Environment Department, Government of Orissa and the JBIC was signed on 31st March 2006.

The project aims to restore degraded forests and improve the income level of villagers by promoting sustainable forest management through Joint Forest Management (JFM) and community/tribal development, with larger goals of improving environment and alleviating poverty. This seven year project (2006-07 to 2012-13), is to be implemented in 14 forest and wild life divisions, namely Angul, Balliguda, Bonai, Deogarh, Jeypore, Keonjhar, Koraput, Paralakhemundi, Phulbani, Rayagada, Rourkela, Satkosia WL, Balasore WL and Bhadrak WL. These divisions fall in 10 districts of the state.

A village specific local need based approach will be adopted and the interventions in the JFM mode would be formulated and implemented through the village committees. All the activities in a project village will be taken up together in a year after which the assets created would be maintained. Emphasis in all interventions would be on technology up gradation and development of sustainable livelihoods to the poorest of the poor living on forest fringe.

The State Government have constituted the Orissa Forestry Sector Development Society to facilitate smooth implementation of the Project. This document, gives the salient features of OFSDP including the objectives, proposed interventions, implementation strategy and is meant primarily for the officers and staff who will be associated with implementation of the project.

I hope this document will be a useful reference material and act as a guide for detailed planning and implementing various activities under the OFSDP.

I take this opportunity to place on record our sincere gratitude to all the officers, other persons and organizations for their valuable input and support in the process of formulation of OFSDP and the JBIC for the financial support.

Arun K. Bansal

Addl. Principal Chief Conservator of Forests
& Project Director

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MEMORANDUM

on

ORISSA FORESTRY SECTOR DEVELOPMENT PROJECT

between

JAPAN BANK FOR INTERNATIONAL COOPERATION

and

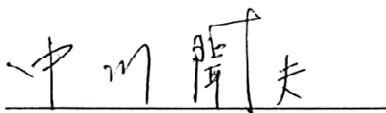
FOREST AND ENVIRONMENT DEPARTMENT, GOVERNMENT OF ORISSA

Date : March 31, 2006

With a view to providing the basis for supervision and monitoring of the above-mentioned Project and thereby facilitating its successful implementation and ensuring its effectiveness and sustainability, JAPAN BANK FOR INTERNATIONAL COOPERATION (hereinafter referred to as "the BANK") and FOREST AND ENVIRONMENT DEPARTMENT, GOVERNMENT OF ORISSA (hereinafter referred to as "the Executing Agency" or "OFD") conclude the following Memorandum.

For

JAPAN BANK FOR
INTERNATIONAL COOPERATION



Kikuo Nakagawa
Chief Representative
JBIC New Delhi Office

For

FOREST AND ENVIRONMENT
DEPARTMENT, GOVERNMENT OF ORISSA



P. R. Mohanty
Principal Chief Conservator of Forests
Forest and Environment Department,
Government of Orissa

State Govt. authorised PCCF, Orissa to sign the memorandum of behalf of the State Govt., Deptt. of Forest and Environment vide memo no. 4F(S)-20/05(Pt.). 6125/F&E Dtd. 15.4.2006.

Memorandum

1. The Bank and the Executing Agency confirm the contents of the Minutes of Discussions dated November 26, 2005, attached hereto as Annex I.
2. The Bank and the Executing Agency confirm the contents of the Project Status Report(PSR), as of the signing of this Memorandum, attached hereto as Annex II.
3. The Bank and the Executing Agency confirm that the following measures will be taken in implementing the Project so as to incorporate and meet a wide range of needs from the people and NGOs in and around the project areas.
 - 1) The Executing Agency shall ensure the transparency during the project implementation by disclosing project contents (both in English and local language), strengthen their Public Relation activities and be responsive to relevant questions and opinions raised by the stakeholders and field officers that will improve the Project.
 - 2) The Executing Agency shall hold state level workshop(s) in formulating guidelines and manuals related to the operation of VSS in order to collect various suggestions from people and NGOs all over the state.
 - 3) The Executing Agency shall also extend, if and when required from the view point of maintaining the watershed in a holistic manner, training courses for those people and NGOs outside the target villages so as to maximize the impact in the project areas.
 - 4) The Executing Agency shall consider designing alignments of the road component (forest roads and link roads) so that the maximum number of villages/people from that particular area can benefit, regardless of being a part of the project. In this regard, result of the consultation with the nearby villagers shall also be incorporated in the design.
4. The Bank and the Executing Agency confirm that the Executing Agency shall submit to the Bank a Progress Report quarterly (in January, April, July and October) until completion of the Project, by updating the PSR, based on the updated status of the Project from time to time with a view to ensuring the smooth and efficient implementation of the project. Progress Report shall be accompanied with Forecast Disbursement Schedule (as per Annex III), Photographs and Project Map as necessary. Status of the measures to be adopted and/or points which require special attention and their planned countermeasures should be reported in *2-5 and 3-2 Precautions* of the PSR.
5. The Bank and the officials of the Executing Agency confirm that, as per Section 4 (5), Article, III of the Loan Agreement, the Executing Agency, promptly, but in any event not

later than six (6) months after completion of the Project, shall submit to the Bank a Project Completion Report by filling information available at the time of the Project completion into the PSR.

6. The Bank and Executing Agency have agreed that Monitoring Indicators, which consist of Operation and Effect Indicators and their target figures, set out as per 3-4 Qualitative and Quantitative Data of Monitoring Indicators in the PSR, are used to monitor and evaluate effectiveness and outcome of the Project.
7. The Bank and Executing Agency have agreed that the evaluation of the Project should be conducted, from time to time, during the project cycle along with the criteria of the PSR provided by the Executing Agency.
8. The Bank has informed the Borrower that the Bank would publish the "Ex-Ante Project Evaluation Report" soon after the signing of a Loan Agreement for the appraised Project. The Report, prepared based on the information collected through the Bank's appraisal, consists of eight major items: 1) project name, 2) necessity and justification of the Bank loan, 3) objectives of the project, 4) project description including schedule at present and result of environmental review, 5) performance indicators (operation and effect indicators), 6) risks due to external factors, 7) evaluation results of past similar projects and lessons learned, and 8) evaluation plan.



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JAPAN BANK FOR INTERNATIONAL COOPERATION
REPRESENTATIVE OFFICE IN NEW DELHI
3rd Floor, D.L.F. Centre, Sansad Marg, New Delhi-110 001

NDL 17-168
Mar 31, 2006

Mr. P.R. Mohanty
Principal Chief Conservator of Forests
Govt. of Orissa
Bhubaneswar

Subject : ID-P173 : Orissa Forestry Sector Development Project
Project Memorandum and Project Status Report

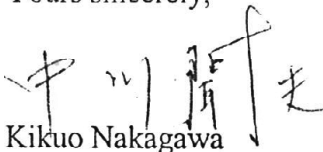
Dear Mr. Mohanty,

We would like to express our sincere gratitude to you, your colleagues and other Indian authorities for successful conclusion of Loan Agreement (ID-P173), in respect of the captioned project. This was possible due to the tireless efforts put in by the officials of Orissa Forest Department, DEA, Ministry of Finance, Ministry of Environment & Forests, Government of India and the necessary cooperation & assistance extended by all other concerned agencies.

Taking this opportunity, we would like to bring it to your kind notice that as agreed during the Loan consultation discussions, Orissa Forest Department shall submit / report the stipulated requirements to JBIC to facilitate successful implementation of the project in a timely manner. In order to keep a record of such commitments and monitor progress of the project, please find attached herewith, in duplicate, Project Memorandum and Project Status Report mentioning the reporting requirements together with the stipulated time period. We request you to kindly sign both the copies, retain one copy for your records and return the other to JBIC.

We shall very much appreciate your kind cooperation in the matter.

Yours sincerely,


Kikuo Nakagawa

Minutes of Discussions
on
Orissa Forestry Sector Development Project
between
Japan Bank for International Cooperation
and
Orissa Forest and Environment and Environment Department,
Government of Orissa
Ministry of Environment and Forests, Government of India

Date : November 26XX, 2005


Place : New Delhi, India

The Japan Bank for International Cooperation (JBIC) mission comprising of Mr. Izumi Kai Division 2, Development Assistance Department III, and, Mr. Katsu Shima, Division 3, Sector Strategy Development Department, Ms. Hisako Kodama, Social Development Division, Sector Strategy Development Department, Mr. Shimji Nanbo, Economist, Ms. Junko Tanikawa, Representative and Mr. Vineet Sarin, Representative Office in New Delhi had detailed discussions with the officials of Orissa Forest and Environment and Environment Department (OFD) and the Ministry of Environment and Forests (MOEF) from November 14 to 19 and 26, 2005, in order to study the feasibility of Orissa Forestry Sector Development Project (“the Project”).

The JBIC mission and the officials of OFD and MOEF hereby confirm the result of their discussions as follows, subject to approval by the competent higher authorities of both sides and with understanding that nothing in present Minutes of Discussions should be understood as implying a commitment of JBIC to extend a loan. The result of the discussions is as follows:

1. The JBIC mission stated that the result of the discussions would be taken into account by the Government of Japan (GOJ) in arriving at decisions regarding the commitment of the JBIC’s Official Development Assistance (ODA) Loan.
2. The JBIC mission and the officials of OFD and MOEF confirmed organisation information, description of the Project, project implementation, benefit derived from the Project, operation and maintenance, and evaluation as in **Annex I** attached hereto.
3. The JBIC mission and the officials of OFD and MOEF confirmed the main points discussed as in **Annex II** attached hereto.


For
Japan Bank for International Cooperation



Izumi Kai
Deputy Director, Division 2,
Development Assistance Department III



Katsu Shima
Deputy Director, Division 3,
Sector Strategy Development Department



Hisako Kodama
Social Development Expert,
Social Development Division,
Sector Strategy Development Department

For
Forest and Environment Department,
Government of Orissa

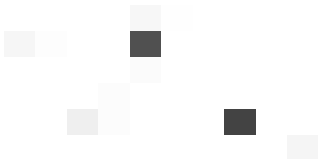


Sri. S. P. Nanda
Principal Secretary to Government of Orissa



Sri. P. R. Mohanty
Principal Chief Conservator of Forests, Orissa

For
Ministry of Environment and Forests



Jagdish Kishwan
IG Forests, Min. of Govt. of Forests
GOI, New Delhi

1: Project Description (Relevance)

1-1 Project Objective

To restore degraded forests and improve the income level of villagers by To promoting sustainable forest management including JFM plantation and community/tribal development, thereby improving environment and alleviating poverty.

1-2 Necessity and Priority of the Project

- Consistency with development policy, sector plan, national/regional development plans and demand of target group and the recipient country.

The existing forest cover in Orissa is 48,366 km². Out of the area having forest cover, 20,196 km² have crown density of less than 40%, which would require treatment for regeneration and reforestation. The degradation of forest has resulted into the vicious poverty cycle wherein absence of livelihood options encouraged the local people for more and more removal of forest produce in unsustainable manner leading further degradation of forest with spread of poverty and unemployment. Thus the project is necessary for improving the living condition of the people residing in and around the forest by providing them livelihood options consistent with conservation of forest and its sustainable management. This is consistent with the development policy of the State particularly in forestry sector and in accordance with National Forest Policy. Conservation of forest resources and its sustainable management in supporting livelihood to people living in and around the forest besides amelioration of environment is well recognized.

1-3 Rationale of the Project Design

The project will be of 7 years duration, starting from 2006-07 to 2012-13. The project is designed to have a preparatory phase in the first year in which selection of the project villages, induction training of the project staff, capacity building of the identified VSS and frontline staff will be completed. Base line surveys in the project villages to be adopted during 2nd year will be completed during the first year of the project alongwith the finalisation of micro-plans of the VSS areas to be implemented in the 2nd year. Selection of sites and development of nurseries will also be undertaken. During this period the PMU, DMU and some of the FMUs will be developed and the Operation Manual would be finalized. Development of infrastructure and the procurement of equipment would also be started during this phase itself. Consultancy activities would commence during this phase so that the recommendation could be implemented in subsequent years. In the 2nd year, for the 1st batch of villages (villages selected in the 1st year) implementation works based on the micro-plan will be taken up and for the 2nd batch of villages (villages selected in the 2nd year) the preparatory activities (VSS formation, capacity building, micro-plan preparation, etc.) will be undertaken. Meanwhile, the capacity building and infrastructure development activities will be continued based upon necessity for the 1st batch as well. During the 3rd year, plantation for the 1st batch of villages, implementation in 2nd batch of villages will be undertaken based on the micro-plan, maintenance works for the previous years will be undertaken. Preparatory activities (VSS formation, capacity building, micro-plan preparation, etc.) for 3rd batch villages will be undertaken. Meanwhile, the capacity building and infrastructure development activities will be continued based upon necessity for the 2nd batch as well. During the 4th year, plantation for the 2nd batch villages, implementation work in 3rd batch of project villages based on the micro-plan, maintenance works for the previous years will be undertaken. Meanwhile, the capacity building and infrastructure development activities will be continued based upon necessity for the 3rd batch as well. During the 5th year, plantation for the 3rd batch villages will be undertaken, maintenance works for the previous years will be undertaken. During the 6th and 7th year, maintenance and consolidation work of previous years will be undertaken, while slow, phased withdrawal from the project villages will start during this period.

The project approach would be to have a village specific local need based approach and the interventions in the JFM mode would be through the village committees. All the intervention in a project village will be taken up together in a year after which the assets created would be maintained. Emphasis in all interventions would be technology up gradation and development of sustainable livelihoods for the poorest of the poor.

2: Project Implementation (Efficiency)

2-1 Project Scope

Table 2-1-1a

Location	State of Orissa <i>Attachment 1: Location Map</i>
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Table 2-1-1b

Items	Original
Restoration of Degraded Forests (Forest Management under JFM & Non-JFM Mode & Farm Forestry)	196,650 ha in 11 divisions 1) ANR 138,000 ha 2) Block Plantation 39,650 ha 3) Artificial Regeneration 19,000ha
Coastal Plantation	2,810 ha for 2 divisions
Biodiversity Management	1) Ecotourism Development : 5 sites 2) Establishment of Community Reserves/ Heritage Sites: 5 sites
Community/Tribal Development including Capacity Building of VSSs	Entry Point Activities Income Generation Activities Livelihood Improvement Formation of 2,275 VSSs and 4,550 SHGs
Supporting Activities	Preparatory works Strengthening of Executing Body Infrastructure Development Forest Research Publicity and Communication Monitoring and Evaluation Phase-out/Phase-in Activities
Consulting Service	International: 42 M/M Local: 0181 M/M <i>Attachment 2: Detailed Scope of Work</i> <i>Attachment 3: Terms of Reference, M/M Schedule, and Cost Breakdown of Consulting Services</i>

2-2 Implementation Schedule

Table 2-2-1

Items	Original
Restoration of Degraded Forests (Forest Management under JFM & Non-JFM Mode & Farm Forestry)	Year 2 to 7
Coastal Plantation	Year 3 to 7
Biodiversity Management	Year 3 to 7
Community/Tribal Development including Capacity Building of VSSs	Year 1 to 7
Supporting Activities (Preparatory works, Strengthening of Executing Body, Infrastructure Development, Forest Research, Publicity and Communication, Monitoring and Evaluation, Phase-out/Phase-in Activities)	Year 1 to 7
Consulting Service	Year 1 to 4
Project Completion Date*	End of March 2013 <i>Attachment 4: Detailed Implementation Schedule</i>

*Project Completion was defined as completion of afforestation and disbursements.

2-3 Project Cost

2-3-1

Table 2-3-1a

Unit: (JPY Rs. mil)

Breakdown of Cost	Original								
	Foreign Currency Portion			Local Currency Portion			Total		
	Total	JBIC Portion	Others (GOO)	Total	JBIC Portion	Others (GOO)	Total	JBIC Portion	Others (GOO)
Restoration of degraded forests	0.0	0.0	0.0	6,476.6	6,476.6	0.0	6,476.6	6,476.6	0.0
Coastal plantation	0.0	0.0	0.0	319.9	319.9	0.0	319.9	319.9	0.0
Biodiversity management	0.0	0.0	0.0	314.6	314.6	0.0	314.6	314.6	0.0
Community/ tribal development incl. capacity building of VSSs	0.0	0.0	0.0	3,055.0	3,055.0	0.0	3,055.0	3,055.0	0.0
Supporting activities	0.0	0.0	0.0	1,742.3	1,742.3	0.0	1,742.3	1,742.3	0.0
Price escalation	0.0	0.0	0.0	460.0	460.0	0.0	460.0	460.0	0.0
Physical Contingency	0.0	0.0	0.0	618.4	618.4	0.0	618.4	618.4	0.0
Consulting services	164.3	164.3	0.0	351.9	351.9	0.0	516.2	516.2	0.0
Administra- tion	0.0	0.0	0.0	2,025.5	0.0	2,025.5	2,025.5	0.0	2,025.5
Tax & Duties	0.0	0.0	0.0	266.8	0.0	466.8	466.8	0.0	466.8
Total	164.3	164.3	0.0	15,831.1	13,338.9	2,492.2	15,995.4	13,503.2	2,492.2
Interest during construction	433.3	433.3	0.0	0.0	0.0	0.0	433.3	433.3	0.0
Grand Total	597.6	597.6	0.0	15,831.1	13,338.9	2,492.2	16,428.7	13,936.5	2,492.2

(Note) Exchange Rate: US\$1=Rs.43.7 =¥109 (Rs.LC1=¥2.49)

Base Year for Cost Estimation: July 2005

Table 2-3-1b

*Fiscal Year starting in 2006 April and ending in March 2012

Unit: (Rs.JPY mil)

Breakdown of Cost	JBIC Portion	Others	Total
Year	()	()	()
2006	719	129	848
2007	1,501	293	1,794
2008	3,751	631	4,382
2009	3,502	590	4,092
2010	2,922	500	3,422
2011	932	201	1,133
2012	610	148	758
Total	13,937	2,492	16,429

Note: Exchange Rate used: Rs1=JPY 2.49 (as of July 2005)*Attachment 5: Detailed Annual Fund Requirement***2-4 Organizations for Implementation****2-4-1 Executing Agency:**

- Organization's role, financial position, capacity, cost recovery etc,
- Organization Chart including the unit in charge of the implementation and number of employees.

Executing Agency
Orissa Forest and Environment Department (OFD)

Organization's Role

OFD takes responsibility for all the activities in the Project. Project Management Unit (PMU) will be established at the headquarters in Orissa for the smooth implementation and coordination under the Project. Specific functions includes overall project coordination, procurement management, financial management including checking of all accounts and preparation of disbursement requests to JBIC, arrangement of audit, monitoring and evaluation, and preparation of reports such as Progress Reports and Project Completion Report in line with PSR format. PMU consists of 36 staff headed by an Additional Principal Chief Conservator of Forests (APCCF). In addition, DMU and FMU consist of 154 and 1,207 employees respectively.

Attachment 6: Organization Chart for Implementation

2-4-2 Contractor(s)/ Supplier(s), and Consultant(s) and Their Performance:

2-4-2-1 Procurement and Consultant

Table 2-4-2: Procurement of Contractor(s)/Supplier(s) and Consultant(s)

Contract Package	Selection Method
Contractor(s)	Most of works are implemented by VSS based on MOU. Others are procured by local competitive bidding or price quotation. NGOs are selected by DMU to assist the execution of works by VSS
Supplier(s)	Local competitive bidding or price quotation. Contracts will be mainly from local firms.
Consultant(s)- Project Management Consultant	<p>Short-list method for selecting a(n) national or international general consultant 2 other specific consultants for the following purposes will also be selected either by short-list method or direct contract basis.</p> <p>1) Preparation of Micro Plan guidelines and VSS management manual 2) Preparation of Operational Manual</p> <p><i>Attachment 7: Details of Procurement Method</i></p>

2-5 Precautions (Measures To Be Adopted/Points Which Require Special Attention)

- Risks and issues, if any, which may affect the project implementation and planned countermeasures to be adapted, in terms of physical, environmental or social aspects.(e.g., land acquisition, resettlement, HIV awareness and prevention program, gender consideration and EIA clearance)
- Environmental Checklist or report of monitoring indicator (if applicable)

Issues and Countermeasure(s)
<p>No land acquisition and resettlement will be necessary as the project will be implemented in forest land under control of OFD of Govt. of Orissa</p> <p>Neither preparation of an Environment Impact Assessment report nor obtaining an Environmental Clearance for the Project is necessary under the Notification of January 1994, by the Ministry of Environment and Forests. However, since the Project includes construction and rehabilitation of roads, OFD is required to monitor the impact of the works on the environment.</p> <p>Maintenance after the Project completion is important for sustainability of the Project. Therefore, adequate and prompt supply of funds from OFD and concerned authorities of Government of India needs to be secured.</p> <p><i>Attachment 8: Environmental Checklist</i></p>

3: Benefit Derived from the Project (Effectiveness)

3-1 Operational and physical condition of each facility developed/supplied by the project.

3-2 Precautions (Measures To Be Adopted/Points Which Require Special Attention)

- Risks and issues, if any, which may affect the project outcome and planned countermeasures to be adapted, in terms of physical, environmental or social aspects.
- Environmental Checklist or report of monitoring indicator (if applicable)

Issues and Countermeasure(s)

Delay in PMU formation will affect the implementation of the Project. Therefore, PMU members would be identified and PMU formed before March 2006, i.e. before the signing of the Loan Agreement.

PMU independent from OFD could take quick decisions, including obtaining budget from finance department, more smoothly than PMU within OFD, once an operation manual is formulated.

Considering the importance of timely formulation of an operation manual, the OFD committed to take necessary measures in accordance with the Action Plan as shown in Attachment 9.

Attachment 9: Action Plan

3-3 Environmental and Social Impacts

- Major environmental and social impacts have occurred during project implementation (e.g. involuntary resettlement, poverty reduction, natural environment)

3-4 Qualitative and Quantitative Data of Monitoring Indicators

- Operation and Effect Indicator, EIRR and/or FIRR
- Supporting data for computing EIRR and/or FIRR.

Indicators	Target (Yr 2014)
1. Afforestation Area (ha)	199,460
2. Quantity of Planting (numbers)	244 million
3. Survival Rate (%)	Afforestation 1 st year: 90% Afforestation 2 nd year: 90% with casualty replacement of 10% Afforestation 3 rd year: 70% Afforestation 4 th year: 65% Afforestation 5 th year: 60%
4. Quantity of Complementary Planting (numbers)	294.4 million

5. Rate of Forest Cover (%)	Scrub (<forest & tree cover: 10%) to be Open Forest (forest & tree cover: 10 to 40%) Open Forest (10 to 40%) to be Dense Forest
6. Activity of Community	VSS – 2,275, SHG – 4,550
7. Amount of Products Volume (m3), Monetary Value (\$)	2012-13: Rs 8.5 million 2013-14: Rs 21.2 million 2014-15: Rs 430.0 million
8. Annual income increase percentage per household regarding Benefited Forest Owners (\$)	10% for HH
9. Employees (man-day)	22 million
10. Trainees (numbers)	33,500
11. FIRR/EIRR (%)	FIRR: 12.0%, EIRR: 15.1%
<i>Attachment 10: Details of Calculation of FIRR/EIRR</i>	

3-5 Monitoring Plan for the indicators

- Monitoring methods, section(s)/department(s) in charge of monitoring, frequency, the term and so forth.

(1) Monitoring by DMU	Monthly
(2) Monitoring by CF	Bi monthly
(3) Monitoring by PMU	Quarterly
(4) Monitoring by -outside agency	Yearly
(5) Monitoring by Donor agency	First after 4 years.
(6) Mid term evaluation	Second after 6 years.

4: Operation and Maintenance (O&M) (Sustainability)

4-1 O&M and Management

- Organization chart of O&M
- Operational and maintenance system (structure and the number ,qualification and skill of staff or other conditions necessary to maintain the outputs and benefits of the project soundly, such as manuals, facilities and equipment for maintenance, and spare part stocks etc)

14 DFOs and 71 Range Forest Officers (RFOs) will implement O&M and management of the assets and plantations created through the project implementation. To secure the continued O&M and management after the completion of the Project, the followings will be considered;

- Officers are skillful and available in sufficient numbers
- Facilities in form of surveying, computers, network & mobility needs enhancement
- Equipments for research and training etc will be purchased
- Accommodation facilities will be developed
- Empowerment of VSS/SHG in maintenance of assets created will be undertaken

Attachment II: O&M and management structure

4-2 O&M Cost and Budget

- The actual annual O&M cost for the duration of the project up to today, as well as the annual O&M budget.

5: Evaluation

5-1 JBIC and Borrower/Executing Agency Performance

Please evaluate the performance of the two bodies.

5-2 Overall evaluation

Please describe your evaluation on the overall outcome of the project.

5-3 Lessons Learnt and Recommendations

Please raise any lessons learned from the project experience, which might be valuable for the future JBIC assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

Main Points Discussed

I. General

Budgetary Appropriations

1. It has been confirmed that OFD would take all necessary measures to secure the funds required for smooth implementation of the Project, and that there would be no delay in implementation due to insufficient budgetary appropriation on the Project cost, not covered by JBIC Loan.

Implementation of the Project

2. OFD confirmed to take all necessary measures, required from time to time, in a timely and efficient manner and be fully responsible for the Project. After completion of the Project, OFD would continue to be responsible for the efficient operation and maintenance of the assets created through the Project.

II. Implementation Issues

Minimize Transfer of Senior Staff

3. Since JBIC has experienced that frequent transfers of staff increases difficulty in effective and timely implementation of the Project components, the JBIC Mission reiterated the necessity for keeping the same core staff during the Project period for smooth implementation of the Project and for accumulation of institutional memory of project experience. The JBIC mission requested OFD to minimize transfer of the staff in the core positions under the Project. OFD agreed to it.

Executing Agency

4. OFD and JBIC agreed the following implementation structures.

- a) Project Management Unit (PMU) shall be established in OFD for smooth implementation of the Project.
- b) High Power Committee (HPC) chaired by the Chief Secretary, Governing Body chaired by Agricultural Production Commissioner cum Additional Chief Secretary, PMU at the State level, Divisional Management Unit (DMU) at the Division level, and Field Management Unit (FMU) at the Range level will implement the Project.

Organizational Structure of the Executing Body, and members and role of each Committee/Units are shown in **Attachment 12**.

In order to secure sufficient number of field level staffs and smooth commencement of the Project, OFD and JBIC confirmed to appoint one animator for every 3 VSSs. In addition, three specialists, which consist of two Village Forest Workers (VFW) and one NGO shall be provided in each FMU during the Project period. Their performances and activities shall be monitored and coordinated by the Head officer of the FMU.

The JBIC mission expressed its concern on possible delay in PMU formation. OFD explained that PMU members would be identified and formed before March 2006, i.e. before the signing of the Loan Agreement. PMU

would also be promptly registered under Society Registration Act. OFD also explained that once an operation manual is formulated, a PMU independent from OFD could be more advantageous than a PMU created within the OFD in view of the autonomy of taking quick decisions, including obtaining budget sanctions from the finance department more smoothly. Considering the importance of timely preparation of an operation manual, the OFD committed to take necessary measures in accordance with the Action Plan as per **Attachment 9**.

JBIC stated that in order to increase the developmental impact of the project activities in the project villages, inter-sectoral linkages are imperative. In this regard, a formal mechanism needs to be established so that dovetailing of other Government departments/ agencies schemes are smoothly materialized. JBIC suggested that a Committee at the district level under the Chairmanship of the District Collector with Divisional Forest Officer being the Member Secretary and other district level officials of various other departments being other members could be formed. The task of this Committee will be to explore the inter-sectoral linkages specifically in the JBIC project villages.

Orissa Forest Sector Vision 2020

5. OFD stated that under the Orissa Forest Sector Vision 2020, which was prepared with the assistance of DFID, pilot projects on the identified theme areas are in various stages of being developed and are expected to be supported by DFID for implementation. OFD further stated that it will make sure that the proposed areas under JBIC project do not overlap with DFID pilot project areas.

In this regard, JBIC suggested that while the areas of the two projects may overlap, it should be ensured that there is no duplication of activities in the same area. Furthermore, JBIC also suggested that during the fourth year (2009-10) of the JBIC project, or even before that, OFD and JBIC may discuss lessons learnt under the DFID pilot projects so as to, as far as feasible, consider incorporation of the same under the relevant components of the JBIC project. OFD agreed to it.

Joint Forest Management

6. JBIC inquired as to what is the status of the issuance of the amendment to the 1993 JFM Resolution. OFD stated that the same is currently under the scrutiny of the State Government and is likely to be issued in the near future. OFD shall make efforts to expedite the issuance by the State Government and shall submit a copy of the same to JBIC.

JBIC further reiterated that in order to strengthen JFM in the state, OFD must consider providing legal status to the VSS by amending the Orissa Forest Act appropriately. In this regard, JBIC cited examples of other states like Uttar Pradesh, where JFM has been given legal status through similar method. OFD agreed to examine the processes followed by Uttar Pradesh and other states in the country and shall revert to JBIC in this regard by January 31, 2006.

Selection of JFM Villages

7. OFD and JBIC confirmed that the OFSDP will focus project implementation by JFM Model and VSS shall be formed in phases starting from the second Project year. JBIC express concern about the large total number of VSS to be formed under the Project and suggested OFD to reconsider the total target number of 2,275 or to divide the implementation phases into four years so as to decrease the number of target per year. OFD explained that they have VSSs already existing in the target area which can be simply reactivated. Furthermore, OFD shall appoint sufficient number of staff to cover activities for all the VSSs and the work load for each staff would not increase significantly. Both side agreed that the total number of target villages is 2,275 and VSS shall be formed in three phases by implementing one third of the total target each year.

It was confirmed that village for JFM activities would be selected based on the “Selection Criteria of Priority Village for JFM” sheet shown in **Attachment 13**. In addition, it has also been agreed that if there are no villages adjacent to the forest land, villages that fall within maximum 3 km from the plantation site would be considered in view of smooth implementation of the Project.

Micro Planning

8. JBIC stated that Micro Planning should be considered as one of the core pivotal activities on which the effectiveness, success and sustainability of the project depend. Therefore unless a Micro Plan is prepared through the appropriate mechanism, to be set under the project, no project activity shall be permitted in the concerned VSS. Accordingly, JBIC emphasized that Micro Plan for each VSS should be prepared through adequate RRA/ PRA methods over a period of 4-6 months. Several interactions with VSS members on different occasions must be held so as to invite maximum participation of the VSS members in order to incorporate their ideas and aspirations. Micro Plan should not only be forestry activities focused but should be comprehensive so as to include, among other things, developmental activities that may be taken up by other government departments and agencies. Subsequently, the Micro Plan can be shared with other government departments and agencies for dovetailing their activities in the project villages thus facilitating inter-sectoral linkages.

OFD explained that the Micro Plans will be prepared at the level of each VSS by the VSS members in facilitation by the respective FMUs. The process of preparation of Micro Plans is shown below. General interval necessary for each step and the deadline for each step specifically for the first year is summarized in **Attachment 14**.

- Preliminary consultation with the members on their needs and priorities
- Technical survey
- Transect walk along with the VSS members over the project area
- Base line survey within the VSS village and the forest area
- Training need assessment within VSS on the project priorities and strategy
- Preparation of base line information for the micro-plan and Compilation of data
- Designing of the structures and plantations and the cost estimation thereof
- Preparation of initial draft and discussion with the members of VSS after presenting the same in the general body
- Finalization of micro plan document and acceptance by the general body of VSS for recommending the same to DFO concerned.

JBIC also suggested that Micro Planning should not be a one time exercise. On the contrary, Micro Plan should be revisited at the end of each financial year and changes, if any at the request of VSS members, should be considered appropriately. Moreover, each Micro Plan should have a provision for recording the progress made by each VSS in one financial year. This will encourage greater transparency and will also serve as a good monitoring tool with regard to the performance of each VSS. OFD agreed to it.

In the likelihood of the planting activities under the project commencing from 2008-09, JBIC suggested that Micro Planning should necessarily start during the last quarter of 2006-07. However, before commencing Micro

Planning, the concerned staff should be necessarily trained well in advance either through the services of some professional institutes or through trained NGOs. OFD agreed to it.

In addition to above, JBIC suggested that services of experts in Micro Planning should be utilized for preparing a Manual for carrying out Micro Planning which should also include a standard Micro Planning format. OFD agreed to the suggestion and both parties confirmed to appoint an expert for Micro Plan guidelines and VSS management manual preparation for prompt commencing of Micro Plan and VSS formation.

Incentive Schemes for the VSS

9. Entry Point Activities (EPA), in other words Community Development Works (CDW), and Income Generation Activities (IGA) shall be introduced under the Project as incentive schemes in order to increase villagers' participation. Providing immediate incentive schemes to develop small community infrastructures such as water tanks, rural roads and/or community halls desired by villagers shall attract people's attention to the forestry development activities and Income Generation Activities which will take a longer period for the benefits to realize.

Community Development Works (CDW)

10. CDW shall be selected based on the Rapid Rural Appraisal (RRA)/Participatory Rural Appraisal (PRA) activities and incorporated in the Micro Plan prepared by VSS. Forest and/or water conservation related activities as well as non forest activities can be selected for CDW based on the needs of each VSS. Each VSS shall receive Rs.1,400/ha and the fund should solely be utilized for CDW listed in Micro Plan. The Implementation should start soon after the Plan is prepared, preferably before the plantation and other activities take place, and be completed well within the project period. OFD explained that to require mandatory contributions from the villagers either in cash form or any kind would not suitable for the conditions in Orissa, and therefore OFD suggested to introduce user's fee for the asset provided by CDW and the money collected be saved in the Village Forest Development Fund (VFDF) account for the future maintenance purposes.

Village Forest Development Fund (VFDF)

11. JBIC stressed that a financial establishment is essential for VSS activities to be sustainable. OFD explained that the Project will provide budget for CDW, revolving fund for the Income Generation Activities, and revolving fund for establishment cost of nursery for the Farm Forestry. In addition to those, VSS will contribute to a Village Forest Development Fund by raising money from user fees for the asset created by the CDW, penalty for illegal actions, interest from bank savings, and sales from the forest products. OFD stated that those budget provided by OFD for CDW, IGA, and Farm Forestry should be utilized only for the original designed objectives while VFDF could be flexibly used according to the needs of the VSS. JBIC suggested that at least 50 percent of the savings in the VFDF should be allocated for maintenance of the forest area after the Project completion. OFD agreed to it.

JBIC suggested that VSS account should be annually audited since it would receive money from various sources and the fund should be utilized in a transparent and proper manner. OFD agreed to the point and decided to provide auditing cost for four years per VSS for mandatory auditing. However, from the 5th year onwards, the cost should be born by the VSS.

Income Generation Activities (IGA)

12. JBIC stated that Income Generation Activities (IGA) shall be identified at the Micro Planning stage. However, FMU/ NGOs shall be required to provide inputs with regard to the marketability potential of the goods before the IGA are finalized and stated in the Micro Plan. It is confirmed that IGA are not restricted to only forest related activities but any potential IGA are to be encouraged.

Since the revolving fund is newly introduced to OFD, both parties agreed to include extensive training programs on accounting matters for VSS and SHG members based on IGA Guideline so that they can manage the allocated amount as required. OFD and JBIC agreed that IGA guideline, training manual, and monitoring format shall be produced by general consultants.

The Guideline shall incorporate information of Mission Shakti and feedback from SHG members, and should include the following contents;

- SHG should attend training for SHG management and practice saving and meeting for six month. Performance of the SHG shall be monitored and evaluated by the VSS and FMU before they become eligible to receive loans from the VSS.
- Priority shall be given to the Group-based activities. Individual activities through SHG are given less priority.
- If SHG receive loan from the VSS it is eligible to receive a fresh loan only after the repayment is completed.
- Maximum loan amount for individual activities through SHG is Rs.5,000.
- VSS should carefully evaluate the SHG's performance, poverty conditions, repayment capacity, business potential prior to sanctioning a loan provision.
- SHG should evaluate the member's performance, poverty conditions, repayment capacity, business potential prior to sanctioning a loan provision.
- Each VSS shall decide the term and conditions of the microfinance to SHGs.
- In case of default of a SHG in the repayment, the penalty shall be decided by the management committee of the VSS in advance.
- In case of default of a member in a SHG, the penalty shall be decided by the SHG in advance
- In case of default of a member in a SHG, SHG as a group will cover the repayment to the VSS.

Other items to be incorporated will be considered by OFD, and the guideline will be enacted after the approval of JBIC New Delhi office.

OFD explained that the monitoring of the IGA activities including the status of the revolving fund shall be evaluated by FMU staffs and NGO, and monitoring report shall be provide quarterly to FMU, each six month to DMU and PMU. JBIC agreed to it and requested OFD to submit a copy of the same semi-annually to JBIC.

Self Help Groups (SHGs)

13. JBIC and OFD confirmed that an amount of Rs.100,000/- per project village shall be allocated for SHG lending, which will be transferred to the VSS account. This amount shall be provided to the VSS in two installments; Rs.50,000 for the first year and the balance in the second year and shall be kept on a "revolving" basis in the VSS account. Accordingly, the funds lent to an SHG by VSS shall be fully recovered with some interest (to be decided by VSS) and shall be further lent to other SHGs under the same VSS. However, only in case, if where no other SHGs are available, the funds can be provided to the same SHG again. Also, those existing SHGs which have received financial assistance through other sources shall be given lower priority than the newly formed ones.

OFD stated that it plans to form at least 2 SHGs in each VSS. The number can be increased depending on the willingness of the VSS members. A maximum assistance up to Rs. 25,000/- shall be provided to each SHG by the OFD through VSS account. A formal agreement in this regard shall be signed between OFD and the concerned SHG. However, before extending the financial assistance, OFD shall examine the track record of operations of the SHG for at least preceding 6 months, through a screening procedure (to be finalized subsequently). Draft SHG guidelines are shown in **Attachment 15** and it shall be reviewed by a consultant and finalized before Micro Plan preparation.

JBIC suggested if revolving fund for IGA were not utilized by SHGs by the end of the third year, the unutilized amount should be transferred to the VFDF and utilized for JFM activities. JBIC also suggested that the amount defined as utilized in the revolving fund should be calculated based on the number of SHGs; e.g. If there are only three SHGs, Rs. 75,000 should be reserved for the revolving fund while Rs. 25,000 should be transferred to the VFDF as the unutilized amount. OFD agreed to it.

Farm Forestry

14. OFD stated that out of the total 1140 decentralized nurseries, 380 shall be chosen specially for the purpose of raising seedlings for Farm Forestry. The Project shall provide Rs. 28,000/- (for raising 10,000 seedlings) to each of the 380 farm forestry nurseries only. Thereafter, each nursery shall revolve the proceeds of the sale of 10,000 seedlings for raising seedlings for the next year and so on. Accounts with regard to the nursery management (along with other VSS accounts) shall be audited by pre-selected Chartered Accountants, on the panel of State Accountant General, on an annual basis as per State Government policy.

Coastal Plantation

15. The JBIC mission and OFD confirmed that the coastal plantation is essential in Orissa in order to minimize the adverse effect by natural calamities and that OFD would consider the proposals such as 1) to diversify tree species and structure, 2) to reinforce the structure of fore dune, 3) to develop density control technology, 4) to allocate regeneration zones systematically, 5) to develop non-linear utility roads, which were implemented in Akita Prefecture of Japan, and were introduced in the presentation at the SAPROF Workshop held on August 2, 2005 in Bhubaneswar.

Training

16. OFD and JBIC agreed on the framework of domestic and international training to be conducted under the Project as shown in Attachment. Details of initial training modules are to be prepared by the general consultants by October 2006 and approved by JBIC New Delhi Office. JBIC stressed that initial training for the field level officers, NGO and animators should contain objective, background and scope of the Project so that they have clear understanding on the Project and play major role in the implementation.

At the very beginning of the Project, training of trainers (TOT) for OFD management staffs, animators and NGOs should be conducted on priority. Afterwards, the participants shall become trainers for the FMU level training program which are targeted for the VSS members, contents shall be revised and updated TOT shall be conducted whenever necessary. JBIC emphasized that training for those Foresters and VSS members who are to prepare a Micro Plan in year 2007-08 should be given priority. OFD agreed to it. JBIC also explained the need to include an orientation to all the concerned staff including animators and NGOs regarding the Project objective, scope, implementation strategy to develop a better understanding of each person's role and responsibility in the Project. OFD agreed to include this program as one of the mandatory subjects in the initial training programs. Training programme is shown in **Attachment 16**.

As per Overseas Training, OFD explained that overseas training are necessary to improve the project quality in the area of Monitoring & Evaluation, Impact Assessment, International Trade, Costal Management and Sustainable Development. JBIC agreed with the overseas training on the basis of following conditions and OFD agreed to it.

Conditions

- a) Only those officers engaged in the implementation of the Project (DMU and PMU level officers) are eligible.
- b) All officers who participate in overseas training are required to serve for the Project minimum one year prior to the training.
- c) Participants to the overseas training should specialize in the field of the training.
- d) Participants must submit a report to JBIC New Delhi Office and PMU upon completion of training within one month and would also be required to serve the Project for a minimum period of two years upon return from training. Participants also have to submit action plan for the project.
- e) Overseas training shall be undertaken during second half of second year or third year of the Project. Overseas training shall be undertaken only after obtaining necessary approval of the State and Central Government and JBIC New Delhi Office.

Baseline Survey

17. In order to evaluate the project impacts on social, economical and environmental aspects, OFD and JBIC agreed that OFD shall conduct baseline survey in all the project villages before VSS activities are conducted.

Operational Guideline

18. OFD and JBIC confirmed that operational guidelines especially on OFSDP shall be developed by experts by August 2006. The guidelines shall contain specific aspects on JBIC operation, new concepts such as IGA and livelihood development, and various points discussed during the appraisal mission.

Selection of NGO

19. OFD explained that NGO team will consist of team leader, micro finance officer and VSS/SHG development officer. It was also explained that one NGO can be assigned for more than one FMU and be utilized to form VSSs, conduct training/capacity building activities and provide support for exploring market access. NGOs will be invited through an advertisement by DMUs. The selection schedule of NGOs including facilitators will be discussed with JBIC by the time of L/A.

OFD assured that it will collaborate closely with local NGOs in the Project and NGOs will supplement the work of OFD by facilitating VSS's activities and implementing livelihood programmes. It is confirmed that one NGO for the PMU level in the High Power Committee, one NGO for each District Advisory Committee (DAC) for 14 DMU level, one NGO for each FMU shall be appointed. Details of members and role of DAC are shown in **Attachment 17**.

OFD and JBIC confirmed the basic selection criterion of the NGOs are (i) service orientation and proven track record in community services, (ii) having working experience with forest dependents and their exposure to the problems related to forestry, and (iii) having working experience in the same region for at least 2 years, (iv) producing annual report and auditing report for the past two years.

Gender Consideration

20. JBIC pointed out that women's participation into to the project is still limited in Orissa due to cultural constraints and suggested OFD to appoint its female staff at each FMU so that women may feel easier to communicate with them and participate more actively in the Project. OFD agreed to arrange their staff accordingly as much as possible and also give priority to female animators and NGO workers at the FMU where female staff was not available.

To ensure the women's participation in the Project, OFD and JBIC agreed to the following based on the draft of the forthcoming "Joint Forest Management Resolution 2005".

- a) All adults both women and men of the village who are eligible election voter shall be members of the VSS.
- b) Within the Executive Committee (EC) consists of 11 elected representatives from the VSS of which at least 5 shall be women members.
- c) Either the Chairperson or Vice-chairperson of the VSS shall be a woman
- d) The quorum for General Body meeting shall be at least 30 percent of members of VSS out of which 50 percent should be women.
- e) The quorum for any meeting of the EC shall be 50 percent of its members out of which at least two should be women.

JBIC stressed that actual women's participation is necessary in JFM and the Project should ensure their participation by providing specific consideration on women's needs and conditions, eg. meeting schedule, and by continuous monitoring in the project site. OFD agreed to it and committed to ensure women's participation in JFM.

Uniform

21. JBIC agreed that Khaki uniforms are useful in identifying a forest staff among the people and protecting them against wild animals in the forests. Despite understanding these advantages, JBIC pointed out that in order to facilitate the communication with the villagers, it is effective for the Ranger/Forester/Forest Guards to wear plain clothes when participating in discussions at RRA/PRA meetings at the villages. OFD agreed that they will try to promote this practice as to the extent possible.

III. Implementation and Monitoring Organization

Required Documents

22. Submission of the following documents is required during project implementation.
 - Quarterly Progress Reports (QPR), in such a form and in such details as JBIC may reasonably request
 - Project Completion Report (PCR), not later than 6 months after completion of the Project and in such a form and in such details as JBIC may reasonably request

IV. Procurement and Disbursement

Consulting Services

23. It has been agreed that a general consultant would be hired for the purpose of providing support in project implementation by OFD and activity for each component would be coordinated by the selected general consultant in the Project. Under this sub-component, both sides agreed that OFD will employ two experts for (a) Micro Plan guidelines and VSS management manual and (b) Operational Manual prior to appointment of general consultants. TORs for the experts are as per Attachment.

Procurement Methods

24. Procurement of goods and services, except consulting services, covered by JBIC loan should be implemented in accordance with “Guidelines for Procurement under JBIC ODA Loans”, dated October 1999. Employment of consultants should be implemented in accordance with “Guidelines for Employment of Consultants under JBIC ODA Loans”, dated October 1999.

Environmental Checklist

25. OFD confirmed that the environmental and social considerations made for the Project were as summarized in the Environmental Checklist, attached as **Attachment 8**.

V. Impact of the Project

Economic and/or Financial Analysis

26. It was confirmed that economic internal rate of return (EIRR) and financial internal rate of return of the Project are estimated to be 15.1% and 12.0% respectively. Details of the calculation are shown in **Attachment 10**.

Evaluation of Performance

27. JBIC will evaluate the performance of the Project periodically during the implementation of the Project. At that point of time, OFD is requested to submit performance evaluation result including Operation and Effect Indicators, economic internal rate of return, and those data used for its calculation. PMU will be responsible for this matter during the Project with other divisions of OFD.

Evaluation of performance will also be carried out after the completion of the Project, normally 2 years after the completion. Chief Conservator of Forest, Project Evaluation and Monitoring, in the office of PCCF, will be responsible for it.

In case restructuring program is adopted by the State Government which leads to organizational structure changes and/or the OFD no longer exists, then the relevant departments will be responsible for undertaking this task. Smooth taking over of the data shall be done in order to maintain institutional memory/ records for the purpose of continuous monitoring and evaluation of the Project.

Maintenance after the Project

28. JBIC expressed its concern about maintenance of assets created under the Project, such as buildings for the OFD and plantation after the completion of the Project. OFD shall play a major role in maintenance and transfer

knowledge and skills to VSSs for three years after the plantation. VSS shall effectively participate in maintenance from 5th year onwards and the bear the cost for the maintenance by utilizing VFDS. It was confirmed that OFD would ensure operation and maintenance of those assets by providing sufficient allocation of maintenance cost, i.e. Rs.28.2 million per year.

VI. Other Issues

The Publication of the Ex-Ante Project Evaluation Report

29. The JBIC mission and OFD confirmed that JBIC would publish the “Ex-Ante Project Evaluation Report” soon after the signing of a Loan Agreement for the appraised Project. The Report, prepared based on the information collected through JBIC’s appraisal and fact-finding, consists of eight major items: a) project name, b) necessity and justification of the JBIC loan, c) objectives of the project, d) project description, e) performance indicators (operation and effect indicators), f) risks due to external factors, g) evaluation results of past similar projects and lessons learned, and h) evaluation plan.

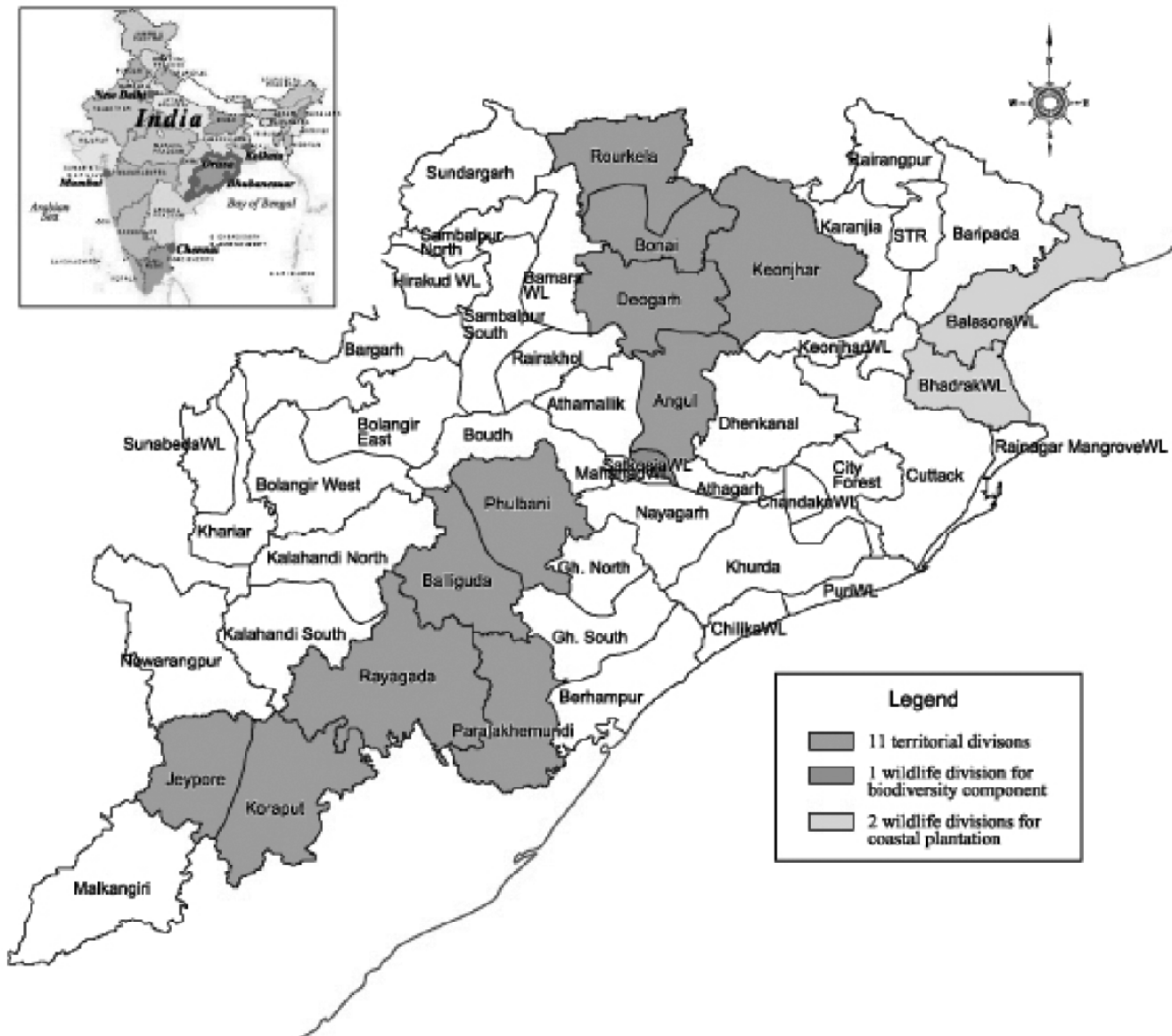
Public Relations

30. The JBIC mission and OFD agreed that OFD shall inform the general public through appropriate means that the Project is funded by the Japan’s ODA Loan through JBIC at all appropriate occasions through mass media (TV and Press, etc.). In this regard, both sides agreed that, under the Project, OFD would prepare publicity material such as brochures, video, and photographs on the Project, which would be distributed to the stakeholders and general public in India and Japan. In addition, OFD agreed to publicize adequately at appropriate occasions such as the inauguration and completion of the Project. On such occasions, OFD would announce accurate information of the Japanese assistance by referring to the Government of Japan and JBIC. OFD also agreed to invite officials from the Japanese Embassy and JBIC staff to the opening and completion ceremonies. OFD confirmed that it would provide board on each plantation site, which shows relevant information such as planting year, size of plantation, species, logo of OFD and JBIC and Japanese ODA.

SAPROF Study

31. The detail data and information related to OFSDP are shown in SAPROF reports. In the event that any discrepancy arises between the terms and conditions of this Minutes of Discussions and SAPROF report, those of this Minutes of Discussions shall prevail.

Location Map of Orissa State & Selected Divisions for OFSDP



Detailed Scope of Work

1. Restoration of Degraded Forests

1.1 Forest Management under JFM Mode

1.1.1 Nursery establishment

Planting stocks will be produced in permanent and decentralized temporal nurseries. Decentralized nurseries will be established in VSS villages and managed by the VSSs. It is assumed that one for every two to three VSSs would be willing to establish a decentralized nursery. Decentralized nurseries will be discussed among the VSS members with the facilitation of FMU staff members during the community organizing and VSS revitalization period. The selection criteria for nursery sites are distance to plantation sites, water availability during the dry season and willingness of the VSS general body. The responsibilities and rights of nursery management would be completely vested to the VSS concerned after it acquires necessary skills and techniques for managing the nursery and producing required numbers of planting stock.

The OFD staff of permanent nurseries will provide a series of technical trainings on how to manage the nursery and produce planting stocks to 3-4 persons from each VSS for managing decentralised nurseries. The Project will provide the facilities for the nurseries including irrigation well, nursery equipment, fencing, quality seeds, cuttings, etc.

1.1.2 Forest-type Improvement

VSS members will identify forest areas inside their JFM area and conduct silvicultural operations to improve the structure of forest stands and promote natural regeneration. The possible operations include climber cutting, pruning, removal of dead and dried trees and enrichment planting by indigenous species. The removed dead and dried trees will be properly distributed to the VSS members concerned and utilized as fuel wood or others.

1.1.3 Rehabilitation of Degraded Forests

- a) Soil and moisture conservation measures: Possible soil and moisture conservation measures under the Project are gully plugging, contour bunding, staggered contour trench, saucer pits with trench ridge/trench mound. Contour bunding and contour trenches will be established at sites for soil conservation depending upon slope categories. Gully plugging work would consist of: i) gully head protection work to prevent further development of the gully head; and ii) a series of check dams to moderate slopes of the gully and eventually to mitigate scouring from the gully slopes.
- b) Assisted natural regeneration (ANR): ANR is used to artificially facilitate natural regeneration provided on degraded forests where rootstocks are still available. It will include singling coppice shoots, removal of high stumps and climbers and tree planting in blank areas. In order to augment incentives of the VSS members concerned, species raising economic benefits in the early years (NTFP and medicinal plants) may be suggested so far as site conditions allow.
- c) Block plantation¹: The block plantation aims to produce specific timber/NTFP products and/or maintain vegetal cover for soil and water conservation. The productive plantation conceivable for the Project have

¹Reforestation provided on a massed open space in a JFM area is referred to as "block plantation" under the Project.

options of: i) economic plantation consisting of timber species; ii) fuel wood and fodder plantation with fast growing species; iii) bamboo plantation; and iv) NTFP plantations. Saucer pits and half moon trench ridges will be made at planting sites in order to maintain moisture for the plants.

1.1.4 Fire protection

VSS members are expected to protect forest blocks within their JFM area from forest fire. The fire protection will be carried out in two ways: i) construction and maintenance of fire lines; and ii) regular watching and patrolling. The VSS members will be paid for the construction of fire lines as well as patrolling bamboo and NTFP plantation during the Project period. Fire lines will be constructed in January before the dry season along the plantation sites, while watching and patrolling will be conducted during the hot summer dry season. The VSS which did not experience forest fires or successfully extinguished them during the dry season, will be awarded with a “no fire bonus (monetary incentives)”.

1.2 Forest Management under Non-JFM Mode

1.2.1 Consolidation and Demarcation of Forest Boundaries

The boundaries of forest blocks including reserve forests, demarcated protected forests, village forests and sanctuaries will be demarcated on the ground on a priority basis to prevent further encroachment. This work will include demarcation, surveying and mapping of forest blocks. Geo-referencing based on GPS techniques will be utilized for the survey. The result of the survey will be delineated on the existing maps such as topographic maps at a scale of 1:25,000 or 1:50,000 produced by the Survey of India. The block boundaries will be cleared using a 5 m wide strip and cairn pillars will be installed or maintained at a visible distance along with the boundaries.

1.2.2 Construction and Improvement of Permanent Nursery

Existing permanent nurseries within the Project area will be upgraded by providing irrigation facilities (deep well, pumping facilities, pipeline, etc.), working sheds, and shed nets in accordance with the site specific requirement. New permanent nurseries will be constructed for divisions that do not have sufficient planting stock production capacity. A mist chamber (10 m x 10 m) will be introduced for each of the selected permanent nurseries to produce planting stocks by clonal propagation.

1.2.3 Forest-type Improvement

In order to improve the standing stock and stand structure as well as augment the biodiversity of forest blocks, silvicultural operations will be carried out in Reserve Forest blocks that have sufficient standing stock. The silvicultural operations including annual operation areas, thinning (only for plantation), artificial regeneration and post thinning operations will be planned and implemented in the blocks in the divisions where valid working plan is available.

In addition to the ordinary silvicultural operation, enrichment planting will be carried out for certain forest blocks to increase the biodiversity of the existing high forests.

1.2.4 Artificial Regeneration

In forest blocks outside the JFM areas, intensively managed teak plantation will be established in open forest of more than 100 ha mass. This will be undertaken by DMUs/FMUs. The sites for plantation will be selected strategically in view of: i) distance from market; ii) accessibility to the sites; iii) topographic conditions suitable for forest operation such as plantation, maintenance and harvesting; iv) soil conditions suitable for teak plantation. This plantation will be conducted only the forest blocks with valid working plan.

1.2.5 Fire Protection

Fire lines will be cleared to protect teak plantation established by DMUs/FMUs concerned. They will be constructed in January before the dry season.

1.3 Farm Forestry

1.3.1 Planting Stock Production and Distribution at Cost

Producing good quality planting stock as per the needs of the local people is a challenge for the Project. It could, however, be made at the VSS level to produce and supply planting stock to farmers.

As discussed in the previous section, approximately one decentralized nursery for every two VSSs (around 1,200-1,300 decentralised nurseries) is expected to be established for the ANR and block plantations. In addition to its requirement for ANR and block plantation, a number of nurseries would be selected to produce planting stock for sale for horticulture, NTFP, medicinal and vegetable species for sale to public institutions such as Gram Panchayat, schools, SHG, youth clubs as well as farmers or residents in urban areas.

Obviously not all decentralized nursery can be feasible for planting stock production for sale: only those that are located at strategic places (near major roads or close to township) may be feasible for this component. For the selection of nursery to enter into farm forestry business, a feasibility study will be conducted by groups of experts. The study will assess the needs of the farmers and public institutions and prepare a list of species and number of seedlings to be raised. With assistance from FMU, the VSS concerned will plan the farm forestry activities, and the selling price of the planting stock will be determined to recover production costs and management costs for producing and selling. Revenue from the selling will provide the source for funds for the planting stock production and selling in the subsequent year. Records would be maintained at the nursery level on the sale of seedlings.

1.3.2 Demonstration Centre

For information dissemination on farm forestry, model farms will be established both by selected NGOs and willing farmers. Through the forest research, farm forestry models will be developed for different farm sizes and locations in each DMU based on the analysis of existing agro-forestry systems, land use pattern and socio-economic conditions of the division.

A set of NGOs will be selected and contracted by DMU, and the NGOs will establish and manage average two model farms per DMU based on the farm forestry models developed through the forest research. The NGOs will be provided with technical support, funds and other inputs by DMU and FMU. These model farms may function as a technical guide station for proving information on different farm forestry models, cost benefit analysis, market information etc.

At the same time, a group of willing and capable farmers will establish model farms in their villages. At least two such farmers would be selected for one FMU and dedicate their land (0.5 to 1 acre). DMU and FMU will select such farmers with criteria such as availability of land, personality, ready to invest time and other resources. FMU will provide technical assistance and fund for such farmers. The farmers, who will be trained for this purpose, will specify an appropriate agro-forestry model based on the results of forest research and the discussion with DMU/FMU staff. Practical training and orientation for other farmers will be organised on the model farm that are established and managed by NGOs. They can be taken on exposure to the nearest model farms, when already available.

1.3.3 Extension Service

FMU will provide regular extension service to the VSSs, institutions in general and the farmers in particular on farm forestry and agro-forestry. IEC materials that will be prepared based on the results of model development will be made available at the DMU and FMU levels for distribution to NGOs, SHGs, VSSs and farmers. At each model farm managed by NGOs or willing farmers, all these IEC materials will be available, and these model farms will provide the extension service to general public who would be the buyers of planting stocks produced by the farm forestry nurseries under VSS. Topics of IEC materials would include the methodologies for the decision on appropriate agro-forestry models, cost benefit analysis, access to high quality planting materials, maintenance of farm, live fencing, and market situation. Through the extension work, people would be educated on growing tree crops, NTFP, fodder, fruit and medicinal crops in the home gardens/backyards and the right combination of different species.

2. Coastal Plantation

2.1 Mangrove Plantation on Coastal Zone

- a) Socioeconomic condition survey: At the initial stage, the utilization of mangrove and other natural resources will be surveyed. According to the outcome of the survey, compensatory measures such as fuel and fodder plantation may need to be implemented before the mangrove plantation is started. These will mitigate the pressure on mangrove area by cattle grazing and local people, which is inevitable to raise the plantation successfully in the densely populated coastal area.
- b) Land preparation: For mangrove plantation, fish-bone canal systems will be developed to introduce sea water where the tidal flow is disturbed due to topographic conditions. The mangrove species will be planted on the slope of the canals.
- c) Plantation establishment: By selecting appropriate species based on the frequency of tidal inundation, plantation activity can be achieved. The plantation will be started from the area closer to the low tide line where the regular inundation is assured. The plantation will be done using either potted seedlings or hypocotyls (or propagules).

Ground-Level	Potential Mangrove Species	Planting Method
Low	<i>Rhizophora</i> spp., <i>Kandelia candel</i> , Etc	hypocotyls
	<i>Sonneratia</i> spp., <i>Avicennia</i> spp., Etc	potted
Medium	<i>Avicennia</i> spp., <i>Bruguiera</i> spp. , Etc	potted
	<i>Ceriops</i> spp, <i>Aegiceras</i> spp., Etc	hypocotyls/potted
High	<i>Excoecaria agallocha</i> , <i>Phoenix paludosa</i> , <i>Thespesia</i> spp., Etc	potted

In addition, the result of the silvicultural research will be utilized to raise plantation in the higher ground area with diversified mangrove species and non-mangrove species.

- d) Fencing: Both physical and social fencing will be provided to protect mangrove forest from the pressure by the local people and cattle. The social fencing by the VSSs concerned will be prioritized, together with live fence introduction. If too much pressure occurs due to the surroundings, physical fencing using the iron wire will be provided.

2.2 Casuarina Plantation on Coastal Zone

- a) Land preparation: In the area facing to the sea, palisades will be placed parallel to the coastline to arrest the sand drift and to form sand dunes. The sand dune will be formed not only as the protection for planted seedlings, but also to act as a breakwater against tidal waves. The sand dune will be maintained at one meter high or more before stabilized by creepers.

The plantation block will also be enclosed and sheltered by the palisade against sand and wind if necessary. It will be constructed using the branches and the poles from the thinning operation.

To enhance the function of the coastal shelterbelt plantation, it is suggested that the road in the plantation area near the settlement be designed to be winding so that the wind and tsunami cannot pass through without being disturbed.

- b) Plantation establishment: In order to strengthen the function of the plantation to diminish tidal waves by cyclones and tsunamis, mixed plantation will be promoted. In between the casuarina, species like *Pandanus* spp., *Prosopis* spp. will be planted to develop the multi-layered and multi-species forest, which is more resistant against the damage by wind, diseases and insects than the current mono cultured casuarina forest. Cashew trees will be also promoted to augment the incentive for the VSS to manage and patrol the area.

Thinning operations will be done to increase the girth of and to raise the benefits from the plantation. This will also allows the other species to grow with more light in the forest.

- c) Regeneration operation: To keep the casuarina forest healthy, the matured casuarina plantation which reaches up to 15m in height and/or over 20 years age would be regenerated. It is suggested assuming a working belt for forestry operation area of 200m in forest width, 20m of the matured working belt reaching 15 m high will be cut every two years and replanted on the cut-over area. Replanting will be done in the manner of plantation establishment, aiming at developing multi-layered and multi-species forest.

3. Biodiversity Management

3.1 Ecotourism Development

This subcomponent envisages to develop tourism destinations based on available natural and wildlife resources. It aims to improve the economy of the people who were hitherto dependant on these forests for their livelihood and provide wholesome recreation, while creating awareness regarding conservation of biological diversity without putting the forests to consumptive uses.

- a) Destination development: Destination development will be made in two stages. The first stage of development would include construction/development of a day-visitor center, nature trails with wooden bridges and signage, a watch tower, a camping site, and access pathes to the visitor centre and camping site in accordance with potential and requirement of the destination. A few years after the first stage development, a feasibility of further development would be examined if it is deemed appropriate. It is expected that the destination be improved using the revenue that would be accrued from the first stage development. The improvement would cover development/construction of huts for accommodation, an information center and gift shops, etc.

The day-visitor center will function as a relief station for visitors and a mini- information center for the same. It would be equipped with pictures, signage and informative brochures/literature.

The facilities at the destination site will be developed/constructed, maintained and managed by a group from a nearby VSS.

A thorough feasibility study will be conducted to examine the potentiality and financial viability / sustainability of the destination sites. The sites should be selected and developed only after confirmation of its financial viability.

- b) Community organizations: In order to provide maximum economic benefit to the local community, the destinations will be managed by the VSS. For this, selected members of the VSS will be exposed to a suitable short training programme on handling tourists, prevention of site degradation by visitors and guiding tourists. In addition, exposure visits to other well-managed eco- tourism sites would be organized for selected VSS members.
- c) Building marketing linkage: These destinations cannot be marketed without establishing proper linkages. They can be linked to the Tourism Department, OTDC, tour operators and other established eco-tourism destinations. To facilitate this, good informative brochures would be developed, and advertising undertaken in print/ electronic media and a website.

3.2 Mitigating Man-Animal Conflict

Depredation of wild animals like elephants, wild boar, sloth bear, gaur, tiger and leopard in human habitats is common in parts of the Project areas. Among the wild animals, the elephant depredation has assumed alarming proportions in most divisions. The situation is worse in divisions of Keonjhar and Angul. It is therefore proposed to improve the condition of their natural habitat and to minimize the losses due to such depredation by taking other suitable measures. To mitigate such conflict, the following measures will be implemented at the strategic sites to be identified.

- a) Habitat management: Availability of water and food are considered as main steps for improving the habitat conditions of wild animals, particularly elephants, and to confine them to their own habitat. Hence, it is proposed to dig game tanks, train the hill streams through a series of check dams, and renovate old and derelict game tanks. Similarly fodder availability will be improved by planting suitable fodder and fruit bearing species and grasses in their existing habitats.
- b) Fire protection in protected areas (PA) and fringe dense forests: The forests of Project areas are susceptible to forest fire. This adversely affects the animal habitat and biodiversity adversely. Hence action needs to be taken to prevent such fire through clearance of fire lines.
- c) Provision of corridors for elephant movement: Elephants are long ranging animals and move from one forest to the other for food and follow a fixed path. In many areas such movement paths have been fragmented due to biotic interference and habitation. It is felt necessary to restore such corridors through planting of suitable fodder species and provision of guiding barriers like, solar, trench or rubble walls depending on suitability. Digging of small ponds will augment water availability along these corridors. Annual maintenance will be provided for all the structures.
- d) Formation of anti-depredation squads: Despite all measures suggested above, still depredation would not be completely ruled out. Hence this has to be contained to prevent loss of human life and property. It is therefore proposed to form anti-depredation squads with VSS members with proper training and equipment to handle such depredations whenever they occur.

3.3 Eco-Development on Peripheries of PA

Numbers of villages are lying on the periphery or inside the PA. These villages do influence the sanctuaries to a high degree due to their dependence on the ecosystem. They need be provided with alternate livelihood means to eliminate their dependence. Their skill levels of the villagers have to be enhanced through training, financial support and marketing assistance. Items like improvement of irrigation, growing of good quality vegetable, cottage industries, creation of self-help groups, sericulture, bee keeping, poultry, small business enterprises and development of market linkages are some examples. This subcomponent will be integrated into both Capacity Building of VSS and Community/Tribal Development components.

3.4 Establishment of Community Reserves and Heritage Sites

There are potentially rich biodiversity areas within the Project areas worthy of paying attention to preserve their flora and fauna. These areas will be identified and notified as Conservation or Community reserves under the recently amended Wildlife (Protection) Act 1972, and as Heritage site under the Biodiversity Act. Based on field survey, management plan will be prepared, and the sites will be managed under the plan. Site development activities would be undertaken under the Project, depending on the conditions and needs of the sites to be identified during the project.

4. Community/Tribal Development including Capacity Building of VSSs

4.1 Community/Tribal Development

4.1.1 Organizational and Technical Support for VSS

NGOs will be hired for services on a contract basis for a period of approximately three years during the initial stage of the Project. They will facilitate overall process of capacity building of VSSs, entry point activities (EPA), income generating activities (IGA) and livelihood improvement.

The selection of NGO will be completed through an appropriate local bidding process by DMU, which will be assisted by the Project consultants. A group of local NGOs may form a consortium headed by the large, financially capable NGO. A set of indicative NGO selection criteria is: i) history; ii) financial capability; iii) physical assets; iv) human resources/networks; v) accomplishments; vi) local presence; vii) rapport to local banks; and iiiiv) reputation/references of donors/funding organizations.

Over the course of three-year services of NGO, social mobilisation and livelihood support skills of FMU staff, village forest workers (VFWs) in particular, will be enhanced through supervising/monitoring the services of NGO and work together in some activities. By the time of NGO withdrawal from the Project work, the FMU will be fully prepared to pursue required services for the VSSs concerned.

The NGOs will be requested to assign at least three personnel, including one Team Leader (micro enterprise specialist) and two Development Agents (one micro finance officer and one community/SHG development officer).

The NGO will request each of the VSSs concerned to select an animator, possibly a VSS leader or an educated youth, who will work as an extension worker after receiving on-the-job training by the NGO. They will receive a fixed honorarium from the Project for his/her services on a monthly basis. The animators will provide necessary assistance to their respective VSSs and SHGs in organizing meetings, coordinating with FMU and other agencies, record keeping, maintenance of accounts and other VSS/SHG management matters.

4.1.2 Entry Point Activities (EPA)

EPAs are part of the community mobilisation process taken up in the respective villages at the initial stage of Project implementation. There will be a time lag between first contact with the community and actual works/ investment following the sanction of the micro plan. In order to generate interest among community members and to provide them certain elementary benefits, and even to gain the confidence of the community, EPA will be undertaken.

Proper selection and effective implementation of the EPA is important to lay a firm foundation for future interaction with the community. The process of EPA selection will be facilitated by the NGO stated above. The FMU concerned will also be closely associated in the process and supervise the NGO organising community meetings for selection and planning of EPA. EPA will be selected in a well-facilitated participatory manner. The samples for EPA are shown below:

Popular EPA Items at Other Projects

Renovation of school/temple	Cement platform under a tree for meeting
Water harvesting pond	Cement platform/soak pit around a well x 4
Communal fish pond	Solar light
Tube well	Compost pit x 20
A set of farming tools	Bathing ghat (staircase for a pond)

The design and cost estimate of the selected EPA will be made by the FMU concerned, with technical assistance from DMU, when needed.

Interest in the Project generated through the process of selection and implementation of the EPA will be effectively harnessed, and sustained through processes that are woven into community's interest with other development activities.

4.1.3 Support for Income Generating Activities (IGA)

To mature a micro enterprise for a community institution, a package of services including support in the form of information, training, capital, and facilitation of processes will be provided to SHG jointly by FMU, NGO and consultants. These will be engaged specifically to conduct market research.

- a) **Market Research:** Prior to beginning IGAs, a market research will be undertaken by a group of specialists from specialized market research organization(s). It will look at a macro level market environment and state level market scenario, as well as field level situations in close collaboration with the NGOs assigned for the community. A final shortlist of potential options of Project areas based IGAs for forest dependent and other poor communities will be then available.
- b) **Identification, formation and strengthening of Self Help Groups (SHG):** IGAs under the Project will be group-based activities. NGO will identify existing SHGs in the VSSs involved in the Project or assist VSS members to form new SHGs as needed. On an average, two SHGs are assumed to be formed per VSS, each SHG will be comprised of 10 to 20 VSS members, mostly women. The SHGs are expected to start generating income through NTFP trading activities and others, function as a community-based micro enterprise, and be self-reliant financially and organizationally at the end.

The SHGs will start with “rotational savings and credit activities (ROSCA)²”, which will be facilitated by the NGO and its animator. Capacity building of the SHGs for group and funds management (including record keeping) will be undertaken by the NGO on-the-job. When the SHG successfully continues ROSCA for six months, it is regarded as a group that has evolved, stabilized with a certain level of solidarity, and identified common interest. This is also a minimum conditions prescribed by NABARD. With such a condition, it can receive further assistance from the Project.

- c) Micro enterprise development and business planning: Using the result of market research prepared by the specialists, the NGO will assist the SHG in preparing plans for a micro enterprise development. This will include: i) review of results of market research and interpretation in the local context; ii) identification of possible IGAs; iii) study of technical and financial feasibility of the IGA as an enterprise at the scale planned, and iv) preparation of a business plan. Subsequently, identified individuals from the SHGs will be provided with training specific to the micro enterprise to be established. The NGO will facilitate organising the training, with assistance from other agencies active in the area of promotion of micro-enterprises (e.g. District Industries Center, Khadi and Village Industries Corporation, District Supply and Marketing Society, Orissa Khadi and Village Industries Board, Orissa Mahila Vikas Sambaya Nigam or the Orissa Women’s Development Corporation).

Based on the IGS plan of each SHG, the Project will provide the SHGs with grant aid assistance as a micro enterprise establishment fund to meet costs of product development, purchase of equipment, and other enterprise establishment costs. Working capital (running cost) required will be met through internal savings among the SHG members and micro credit from financial institutions that provide micro finance services (such as NABARD, rural banks, cooperatives, commercial banks and NGO). The NGO together with FMU are expected to approach to the local banks and microfinance institutions and promote the business plan of the SHG. The NGO is also expected to assist the application for loans from the financial institutions.

For a larger scale enterprise, the SHGs may federate and pool their resources, as per the demands of the situation.

- d) Market linkage support: Demand assessment, price fixation, product promotion, and marketing and sales will be undertaken by a specialized agency which conducted market research at the state and DMU levels. The Project will assist the SHGs in entrepreneurship development with an emphasis on building marketing skills. Selected individuals from the SHGs will be provided with necessary information and skills for promotion of the products and services specific to the area. The SHGs will be provided with assistance by NGO for registration of the enterprise and obtaining necessary government clearances.

The Project will assist in gaining SHG’s economies of scale through wide area coverage. The formation of federated bodies of SHG/VSS at different levels will be promoted by NGO, DMU and PMU. The need and objective for federating, the institutional form of the federation and its operational mechanisms will be worked out depending on the field situation and needs. Some federations may even act as financial intermediaries between their member-SHG, or between financial institutions and the SHGs; others may perform as a fund channeling entity or institution for technical assistance, acting as a Self Help Promoting Institution (SHPI).

² Individuals, in many cases poor women, form a group and agree to contribute a regular fixed amount (usually a small amount) every week or month. Members then take turns receiving the full amount collected until all members have had a turn to receive funds. The group functions as a intermediary of saving and credit in a village where the access to formal financial services is limited. ROSCA is practiced in many parts of the world, and the group is called Self-Help Group (SHG) in India.

4.1.4 Livelihood improvement

Livelihood improvement aims at: i) the fulfillment of basic human needs to make the local people capable for participating in OFSDP; ii) the provision of incentives to local people to participate in OFSDP; and iii) the information dissemination on OFSDP environmental protection. Livelihood improvement will be carried out by four major stakeholders: i) OFD; ii) NGO; iii) external agencies; and iv) local people.

Summary of Roles and Responsibilities for Livelihood improvement

	OFD	NGO/Local animator	External agencies	Local people
Medical and health camps	<ul style="list-style-type: none"> • Provide funds to PHC or gov't hospitals for medicine, vaccine and laboratory tests 	<ul style="list-style-type: none"> • Make plan and ask PHC/gov't hospitals to organize camps • Assist VSS on fund raising 	<ul style="list-style-type: none"> • PHC/gov't hospitals provide medicines, medical check ups and awareness raising lecture 	<ul style="list-style-type: none"> • Participate in camps • Share costs (from 3rd year) • Ask PRI to support in raising funds
Prevention of water born diseases		<ul style="list-style-type: none"> • Make plan and ask Dept. of Health/PHC/gov't hospitals to organize awareness camps • Assist VSS on fund raising 	<ul style="list-style-type: none"> • Dept. of Health/PHC/gov't hospitals provide raw material for chlorination and awareness raising seminar 	<ul style="list-style-type: none"> • Participate in camps • Raise fund for multi-layer water filtration or lining of wells
Re-productive and child health	<ul style="list-style-type: none"> • Produce seeds for kitchen gardens and sell them to VSS members at low price 	<ul style="list-style-type: none"> • Organize meetings on reproductive/child health or ask Dept of Health or others to organize meetings • Promote kitchen gardens 	<ul style="list-style-type: none"> • Organize meetings on reproductive/child health, if asked by NGO 	<ul style="list-style-type: none"> • Participate in the meetings • Establish back-yard kitchen gardens
Non-formal education	<ul style="list-style-type: none"> • Contract and supervise the specialist • Purchase education materials • Pay incentives to village instructors 	<ul style="list-style-type: none"> • Train village instructors and give technical assistance • Promote the education and organize classes • Monitor the activities 	<ul style="list-style-type: none"> • Specialists develop program and modules 	<ul style="list-style-type: none"> • Identify instructors within or nearby village • Participate in classes
Promotion of fuel-efficient devises	<ul style="list-style-type: none"> • Purchase fuel-efficient devises and distribute them to VSS members 	<ul style="list-style-type: none"> • Ask OREDA to train VSS members to produce and maintain <i>chulla</i> 	<ul style="list-style-type: none"> • OREDA trains VSS members 	<ul style="list-style-type: none"> • Identify the types of devises they prefer • Produce and maintain <i>chulla</i> • Reduce fuelwood consumption

NGO will be contracted and engaged in above activities for three years from the second year of the Project, and FMU will take over all the responsibilities of the NGO after its withdrawal. FMU should be able to gain skills and knowledge while supervising NGO's work.

- a) Medical and healthcare camps: To take healthcare services to areas that are not adequately covered by the existing Primary Health Centres (PHC), or that the poor find difficult to access, the Project will organise a series of health camps on a half-yearly basis in each VSS. The camp will provide with diagnostic, prescriptive and referral services for common diseases and epidemics, such as Malaria, tuberculosis tetanus, rubies, etc; only those medicines and vaccines that are available from government hospitals (including PHC or Drug Distribution Centre (DDC) supply) will be distributed free of cost during the first two years. In the third year, the cost will be shared equally between the VSS and the Project, and subsequently shouldered entirely by the VSS or Gram Panchayat.

The organisation of such camps is expected to start early in the Project period as it serves as a good means to reach out to the community and meet their basic medical emergencies, particularly of women. The responsibility for liaising with doctors at the PHC or other government hospitals in the region will be with the NGO

- b) Prevention of water borne diseases: A number of ailments commonly found in rural areas are caused by and spread through consumption of contaminated water, which can be prevented through adoption of hygienic water and sanitation practices, including such activities as chlorination of water tanks and wells, lining of wells, simple filtration and so forth. The NGO and FMU (after the withdrawal of NGO) will ask the Department of Health, government hospitals or PHC to organise awareness camps every six months and impart the know-how to the community for adoption of simple and effective practices that will prevent spread of water-borne diseases. As the basic raw material for chlorination is expected to be supplied free of cost through the Department of Health, government hospitals or PHC, the NGO is only expected to establish the linkage for regular supply of bleaching powder/ chlorine tablets to the VSSs.

For other interventions such as multi-layer water filtration or lining of wells, the VSS should mobilize resources from the community – this may be done after starting regular Project activities that generate employment in the village.

- c) Reproductive and child health: High rates of infant and maternal mortality, prevalence of widespread malnutrition and incidence of sexually transmitted diseases including HIV, may be checked through raising awareness on issues related to reproductive and child health.

Women's meetings will be organised during SHGs meetings and other occasions; men's meeting will be organised during the executive committee meeting or general body meeting. The NGOs may either conduct the meetings themselves, or invite external resource persons from government departments (Integrated Child Development Scheme (ICDS), or the Health Department), or volunteers from the society to talk on issues pertaining to reproductive health, childcare, consumption of balanced diet. The activity will be carried out in all VSSs on an on-going basis. Regular follow-ups may be done during the half-yearly health camps mentioned above.

With regard to balanced diet, NGO, with technical assistance from FMU, will promote establishment of kitchen gardens on homestead plots, and provide quality planting material, including improved seed varieties of vegetables, to the VSS members on a cost basis.

- d) Innovative non-formal education: One of the means of increasing incomes of the rural poor is by preventing exploitation at the hands of traders and moneylenders, who adopt unfair practices of weighing and cost

calculation, which cannot be recognized or challenged by the illiterates. As literacy rates among the rural poor are abysmally low, particularly among women, the Project will start non-formal literacy education to those who are interested in learning.

A group of literacy education specialists will be hired to develop the literacy program and modules, with a list of necessary materials to be purchased by DMU. The responsibility to generate interest in learning will lie with the NGO, which is expected to devise innovative means of education (literacy), using musical instruments, local folklore, prevailing dialect and other means that will be accepted by the community.

Classes would be held in the evening for about 1-2 hours regularly. Other than the initial cost of musical instruments and a nominal recurring cost, one educated youth from the village will be engaged for the activity as an instructor with an incentive, which is expected to be provided at project cost for two and a half years. The cost of training of the village youth in non-formal education will be included in the contract amount of the NGO, which will also monitor his/her services.

- e) Promotion of fuel-efficient devices: The dependence of fuel wood may be reduced through the introduction of fuel efficient devices, such as an improved *chulla* (cooking stove). To conserve biomass resources and thus contribute to meeting the Project objective, the Project will provide a grant for construction and maintenance of fuel-efficient devices in all VSSs. The primary responsibility for initiation and implementation of this sub-component will be laid to the NGO, which will also seek technical assistance from FMU and Orissa Renewable Energy Development Agency (OREDA).

The basic training for construction of the improved *chulla* will be provided to some selected village women by OREDA or FMU. The trained women will construct the *chullas*, for which they will be paid for construction and maintenance fee of the *chullas*.

4.2 Capacity Building of VSS

4.2.1 VSS Management Manual Development

To enable VSSs to manage their respective JFM areas, organizations and forests, a standard VSS management manual for the Project will be prepared at the PMU level. It will be customised at filed level to meet the respective VSSs and JFM areas. Both the standard and customised manuals will be revised periodically based on lessons learned from the field during the Project period. The standard guidelines will be written in both English and Oriya, while customised ones will be produced in Oriya.

Thematic areas to be covered under the manual are:

- a) Maintenance and submission of records, reports and bills to FMU at the VSS level;
- b) Financial management and budgeting, book keeping;
- c) How to conduct meetings, reach agreements, write proceedings, etc.;
- d) Duties and responsibilities of General Body, Executive Committee, President, Secretary, Treasurer, Bookkeeper, working group leaders, SHGs, Gram Panchayat, etc.;
- e) Conflict resolution mechanisms;
- f) Forest protection and management arrangements/options;
- g) Sustainable harvesting practices for different forest products;
- h) Benefit-sharing arrangements within the community;

- i) Alliance building and interface with different agencies/institutions; and
- j) Resource mobilisation/fund raising, interface with financial institutions.

4.2.2 Community Organisation and Revitalisation of VSS

There is a need for either organizing new VSSs or reorganising/reorienting the existing VSSs to establish the necessary solidarity, cohesiveness and group mechanism in line with the vision and mission of the Project, so as to prepare them to participate in the organization.

The following are steps that may be taken up in this direction.

- a) Orientation of DMU and FMU staff: This will be a part of induction training for PMU, DMUs and FMUs.
- b) Orientation of stakeholders of the Project: Concerned Panchayat Raj Institutions, representatives of influential local NGOs and community-based organizations (CBOs) such as federations of SHGs and federations of youth clubs will be informed of the Project.
- c) Orientation of VSSs/communities: During the identification of potential JFM sites, a FMU will request the concerned Gram Panchayat to organize a village assembly meeting. With assistance of the contracted NGO, the Gram Panchayat will mobilise community members for the meeting. Members of the FMU and the Forester concerned will explain the following subjects:
 - JFM – purpose, guidelines, programmes, practices, benefits and responsibilities;
 - Structure and functions of VSS, by-laws and VSS policies based on the VSS Management Guideline to be developed;
 - Duties and responsibilities of VSS members and Executive Body; and
 - About the Project.

Following the explanation, it will be decided through the discussion on whether or not the VSS would join the Project, or a community to form VSS and participate in JFM under the same. Through the process stated above the target VSSs /communities will be selected.

- d) Formation of new VSSs: Leaders of the selected community along with representatives from Gram Panchayat, and the FMU in association with the NGO would conduct several meetings with all forest dependants in the community. This would form a VSS, constitute a general body and elect the Executive Committee members, prepare by-laws and enter into a Memorandum of Understanding (MOU) with OFD concerned. Non-forest dependents in the community will be excluded from the membership. The VSS will be registered as a Society to ensure its legitimacy as an organization.
- e) Re-Orientation to existing VSSs: In case existing “dormant” VSSs are involved in the JFM under the Project, they need to be revitalized to gain the necessary organizational identity and unity.

With the assistance from the contracted NGO, FMU will carry out discussions with the Gram Panchayat leaders and functionaries on the activities concerning the existing VSS. Sarapanch and Naib Sarapanch will be ensured by the FMU in the orientation camps at the VSS level. The Ward Member(s) from the VSS is expected to take a leading role in the VSS in organising the meetings. At least three rounds of such meetings are expected to be held.

The meeting will include: i) collective analysis of history of the VSS; ii) identification of “what went right and wrong” possibilities; and iii) developing an action plan of the VSS. Reorganisation / re-election of the Executive Committee members, formation / revision of by-laws or MoU and formation of VSS policies based on the VSS Management Guideline should be pursued, if required. Non-members who are utilizing forest resources will be identified and encouraged to join the VSS. If the VSS is not yet registered as a Society, it will start processing the application for the registration.

4.2.3 Formulation of Micro Plan

A micro plan is a comprehensive document to guide the VSS in pursuing all forest management for its JFM area, community development and institutional development and other Project intervention.

The VSS will be responsible for formulation of their micro plan, which will be assisted by the contracted NGOs/experts and the FMU concerned. PRA for resource assessment and analysis will be conducted for this purpose. A map of each JFM area at a scale of 1:5,000 would provide indispensable scientific information for the formulation of the appropriate micro plan.

4.2.4 Training, Coaching and Information Dissemination at the VSS Level

Training and information dissemination are ongoing practices rather than events under the Project. The Project will focus more on learning by doing and experience sharing rather than structured/formal classroom training programmes. Participatory learning and sharing will form the core of the capacity building programme.

- a) Training needs analysis (TNA): TNA will be done by the NGO³ under the close monitoring of FMU during meetings of VSS and during preparation of the micro plan.
- b) Developing training design/modules: Based on the TNA, modules for the training programme will be developed possibly at the PMU or DMU level by training specialists who would be hired for the training or by the OFD officers. The training specialists could be the resource person for the training session. The training specialist or resource person will prepare new training material or utilize existing material.
- c) Conducting training programme at the VSS level: The training will be conducted on different subjects developed at the above process. Major training methods to be followed will be interactive and on-the-job training. Since daily “learning by doing” is emphasized, the structured training will be limited to those absolutely necessary. In three years, 12 such training programmes will be conducted.

4.2.5 Conducting training programmes at FMU/DMU Level

At the FMU or DMU level, training programmes will be organised for representatives/leaders of VSSs as required. The subjects of the training will be mostly related to management of programmes and VSS.

4.2.6 Advanced training programme at the DMU level

In each DMU one programme will be organised on advanced silviculture and forest management, forest law enforcement and forest fire management. Representatives will be selected from the VSSs concerned following a set of selection criteria. After training these people should train their VSS members. The resource people will be sought at the forest department, particularly from the office of the silviculturist and forest training schools.

³ The same NGO with the one contracted for Community/Tribal Development.

4.2.7 Exposure trip/exchange visit

DMU will create scope for regular exchange visits for VSS members within their Forest Division so that they can interact with each other and promote mutual learning. DMU will prepare a list of outstanding VSSs and help the FMUs concerned to send their VSSs to these sites. The FMU will develop a detailed plan for such visits so that all the VSSs in its area can be exposed to good practices. DMU will organize a small team from selected VSSs and send them to other VSS/VSSs in the neighbouring Forest Divisions or other parts of the state that have been doing excellent work in forest management and conservation.

4.2.8 Improvement of VSS Facility and Equipment

- a) Provision of a multipurpose building for each VSS: Each VSS will construct a low cost multipurpose building and meeting facility. The built-up area will be around 40 m², consisting of a room of around 15 m² and a meeting space without walls of about 25 m². FMU and VSS will work together to design the building based on prototypes.

The land for the building will be sought by the concerned VSS from communal land, for which consultation may be required with Gram Panchayat and also revenue authorities for use of land and construction of the building as well. The VSS members will contribute labour for construction of such office space.

- b) Office Equipment: Each VSS will be provided with essential office equipment/furniture such as chairs, tables, mats, cabinets, almirah/shelf, petromax light and a typewriter.

4.2.9 Empowerment of VSS, Networking and Resource Mobilisation

- a) VSS management fund: Executive Committee members of the VSS, especially the leaders, would have to shoulder a larger workload than previously. The time and effort used to be devoted for their livelihood, should be compensated. Otherwise, true and sustainable JFM may not materialize. For this, VSS members who receive job opportunities and wages from their VSS for the Project would be requested to contribute to VSS management cost recovery. Such contributions will be pooled in as part of a VSS management fund to be used for compensatory payment.

The mechanism of collecting contributions and providing compensation to the leaders will be discussed and decided based on consensus at a general body meeting of the VSS. A fixed monthly amount or Rs. 2.50 contribution for every Rs. 52.50 daily wage, might be an option. The FMU and NGO concerned will closely monitor operation of the fund to avoid mismanagement. The fund, when it grows a few years after its establishment, could be used for other village development activities to benefit the majority, if not all, VSS members who contributed to the fund.

- b) Delegation of responsibilities and rights of VSS on JFM area management: VSS need official recognition and adequate authority to manage their forest. For this, the financial and penal powers/ responsibilities to be vested in VSS will be elaborated in a clear cut manner and in detail as an attachment to the MoU for JFM.
- c) Networking and alliance building: The process of bringing all the VSSs to a common platform will be initiated. FMU needs to create scope for interaction across the VSSs so that they could aspire to mutual help and cooperation. Periodic meetings will be organised to discuss issues of forest protection and management in the area and how to address these issues collectively. Such forums would evolve to a federation of the VSSs, which would function as technical and managerial assisting body of the member VSSs.

- d) Fund raising: VSS will be helped by the concerned FMU and the NGO to develop small project proposals and submit them to different government departments and external institutions for mobilising resources. The VSS is expected to work closely with the Gram Panchayat concerned to access available resources of the different departments of the state and national government.

4.2.10 Sample Schedule of VSS Formation

As VSS officers and members are farmers and engaged in regular livelihood activities, their time for unpaid/underpaid project works (such as meetings, monitoring work and trainings) is limited. Therefore, the community organizing activities should not be too intensive and spread over a period of time. The following table summarizes the sample schedule of VSS formation for a typical target village.

Sample Schedule of VSS Formation for a Typical Target Village

Month I	Orientation among DMU/FMU staff	2 days
	Orientation for PRI, civil society orgs, CBOs, etc.	1 day
	Orientation for village people	1 day x 3 times
Month II	Selection of target village	1 day x 2 times
Month III	Training on micro planning	2 days
Month IV	Formation of new VSS / Re-vitalization of existing VSS	1 day x 2 times
Month V	Formation of micro plan (PRA, data gathering)	1 day x 3 times
Month VI	Ditto	1 day x 2 times
Month VII	Formation of micro plan (planning)	1 day x 3 times
Month VIII	Approval of micro plan by VSS general body	1 day
	Approval of micro plan by PRI and OFD	Certain periods

5. Supporting Activities

5.1 Preparatory Works

Preparatory works will include: i) establishment of an executing body (EB); ii) site selection and site demarcation for JFM; and iii) preparatory work for micro plan formulation for selected JFM sites.

5.1.1 Establishment of Executing Body (EB)

An Executing Body (EB), consisting of a Project Management Unit (PMU) at the state level, 14 Divisional Management Units (DMUs) at the Divisional Forest Office level and 71 Field Management Units (FMUs) at the Range Office level, will be established promptly with appropriate support from the Government of Orissa and proper legal status. The EB will have its own by-laws and the PMU will be registered as an autonomous Society under the Society Registration Act. It will be the sole and exclusive organization responsible for the implementation of the Project. In concurrence with the by-laws an Operation Manual will be prepared as a code of financial, technical and administrative management of the EB.

The Operation Manual, along with the VSS Management Manual to be formulated at the beginning of OFSDP, will ensure the appropriate application of JFM concept and approach to the implementation of OFSDP.

5.1.2 JFM Area Selection and Demarcation

Preparation of current vegetation / land use map (1:50,000): This map will be prepared with GIS technology using satellite imagery, a base map at a scale of 1:50,000 (topographic maps produced by the Survey of India), Forest Division/Range boundaries, etc. by an external organization such as ORSAC on a contract basis. This map will be the technical basis for the selection of JFM sites where Project activities will be extended.

Selection of JFM areas: The selection of JFM areas for the Project will be carried out in three steps, i.e. prioritizing by the EB, confirming community will, and finalizing.

Prioritizing candidate villages for the JFM area selection will be done mainly by the EB based on the vegetation/land use maps stated above and other data and information collected from the field by the field staff of the EB. A master list of villages being situated on fringe areas of the candidate degraded forest blocks will be prepared. Using the maps, data/information and the master list, the priority villages will be identified with a set of minimum requirements, criteria and a rating mechanism. As much as possible a cluster approach will be applied for the site selection.

After the prioritizing the villages for the JFM area selection, community organization activities will follow. During the community orientation, community will to participate in JFM in the prioritized area will be confirmed through a process of community resolution signed by all VSS members.

For the final selection of JFM area, the VSS concerned will be examined to determine if the following conditions are satisfied:

- VSS / community members are cooperative to the JFM area demarcation activities.
- VSS has been properly organized and established with executive committee members elected through democratic election, executive officers and working group members, and by-laws and necessary VSS policies.
- VSS is registered as a Society.
- More than 80% of households utilizing forest resources in the community have become VSS members.

Should those conditions not be met within six months of entering into community organization / revitalization of VSS, the project activities to the VSS/community concerned will be suspended.

The number of target villages /JFM areas to be selected for a target year in respective Divisions will be thus determined.

5.1.3 Preparatory Works for Micro Plan – Survey and Mapping of JFM Area

For the JFM sites selected for the Project, a simplified ground survey will be conducted using an appropriate instrument concerning vegetation / land use, crown density, standing stock, slope category, and other important information required for formulation of micro plan such as sites where soil conservation work are required. Mapping of the surveyed information will be made at a scale of 1:5,000, which will be utilized as basic information for micro plan formulation and future monitoring.

5.2 Strengthening of Executing Body (EB)

Strengthening of EB will include: i) improvement of office infrastructure; ii) facility/equipment improvement; iii) mobility improvement to facilitate supervision of and technical guidance for the Project implementation; and iv) capacity building.

5.2.1 Improvement of Office Infrastructure

- a) Extension of OFD building for PMU office: To secure office space for PMU, one storey (1,000 m²) will be built out on the top floor of the existing OFD office building (Aranya Bhawan).
- b) Renovation of the existing SFTRI building: Part of the existing Social Forestry Training and Research Institute (SFTRI) building will be renovated for use in conferences, seminars, workshops and training under the Project. Renovation of some 200 m² of floor area is required.
- c) Extension of DFO Buildings: The existing DFO buildings concerned will be extended by a maximum of 75 m² to accommodate the respective DMU offices. No land acquisition will be required for the extension.
- d) Extension of Range Office Buildings: All the existing Range office buildings concerned will be extended by a maximum of 78m² to accommodate respective FMU offices including a floor space to gather VSS members. Available government lots will be sought for the FMU office building.

5.2.2 Facility/Equipment Improvement

- a) Computerized management / monitoring system at PMU: A local area network (LAN) will be established with a number of computers, a server, appropriate printer and other facilities. A GIS cell will be established to utilize the GIS database to be developed by an external specialized agency for project planning and monitoring. The existing equipment such as workstation and software, possibly ArcGIS, ArcView, etc., in the existing GIS cell will be upgraded. Staff members of the GIS cell will undergo intensive training at a specialized training institution.
- b) Computerized management / monitoring system at DMUs/FMUs: Appropriate numbers of computers and other accessories will be provided. For effective project implementation, computer education for DMU/FMU officers will be provided. For this a training programme will be prepared for them as part of the “Establishment of MIS” sub-component.
- c) Procurement of office equipment and furniture: Necessary office equipment will be provided to the offices of PMU, DMUs and FMUs.
- d) Procurement of wireless telecommunication facilities: For timely and close communications among the DMU/FMU offices, existing wireless telecommunication facilities, such as a VFH radio set and antenna tower of the DFO and Range offices concerned will be renewed, as the existing facilities are obsolete, have malfunctioned or are out of order.
- e) Procurement of survey equipment: Survey and mapping are the basic activities to define the boundaries of forest areas and conditions therein. The Project will provide survey tools such as GPS and accurate compasses to DMUs/FMUs.

5.2.3 Mobility Improvement

To execute field inspection, technical assistance, monitoring, attending meetings and other Project purposes in a timely manner, appropriate numbers of four-wheel drive type vehicles and motorcycles will be provided for PMU/DMUs and for FMU, respectively.

5.2.4 Capacity Development

For the staff to understand the project and obtain knowledge/skills required for smooth Project implementation, training, study tours (field visits), and annual review meetings will be held during the Project.

- a) **Training:** The training programme will be designed based on the Training Needs Analysis (TNA) so that contents, modules and training curriculums correctly meet the needs of the trainee concerned. Resource persons can be hired by PMU for the training sessions. For a certain training topics, the concept of Trainer's Training (TOT) will be adopted. In such approaches, a group of trained officers of PMU or DMU will act as resource persons for their fellow officers.
- b) **Study tour (field visit) for DMU/FUM staff:** Study tours for selected DMU/FMU staff members will be conducted a few times during the Project period. These tours will be planned and undertaken under the initiatives of PMU and the concerned DMUs. They will have the options to visit other DMUs/FMUs or other sachems relevant to the Project within the state to share experiences and learn any relevant lessons.
- c) **Annual review meeting:** The purposes of the annual meeting among the key personnel within the Project are to: i) review progress of the Project; ii) exchange views among the staff members from PMU, DMUs and FMUs; iii) identify technical, social and managerial issues/problems hampering proper implementation of the Project; iv) study best practice cases; and v) provide feed back on appropriate countermeasures to the issues/problems and lessons learned to the following year's Project management.

Preparatory meetings will first be conducted at each DMU office where representatives from the FMUs concerned will gather to report their activities, progress, and issues/problems encountered. A general meeting at the state level will then be attended by all PMU staff and representatives from DMU/FMU offices. This will be held at Bhubaneswar. After the meeting, a report will be produced by PMU as one of the references for the field personnel who would not have been able to attend the meeting.

5.3 Infrastructure Development

5.3.1 Forest Roads Development

- a) **Improvement/rehabilitation of existing forest roads:** It is proposed to improve the roads badly needing improvement, which may include: i) widening strategic stretches to 4.5 m wide earthen formations and 3.5 m gravel sub-base from the existing formation of between some 2.5 m to 3.0 m; ii) strengthening of one side of the shoulder using a 150mm thick layer of 10 cm to 15 cm locally available soling stone over a hard shoulder width of 0.50 m; and iii) 150 mm thick gravel sub-base.
- b) **New road construction:** In order to improve connectivity, in particular to economic plantation sites and protected areas, new forest roads with a formation width of the carriageway of 3.5 m with 0.50 m hard shoulders will be constructed as a the priority basis. Related structures like hume pipe culverts, causeways, guard walls, and retaining walls will be provided as required in the field.

5.3.2 Linking Road Development / Improvement

- a) **New link road construction:** Aiming at the economic development and livelihood of target community under the Project, it is proposed to have link roads for connecting a village or a cluster of villages to the nearby main road.
- b) **Improvement of existing link roads:** It has been observed that in villages, only track roads exist, which are disrupted as a result of the first rain showers. Thus the villagers are deprived of their essential needs. It is therefore proposed to construct gravel roads with ordinary compaction. The gravel sub-base will be 150 mm thick for a formation/carriageway width of 3.5 m with ordinary compaction.

5.4 Forest Research

Forest research component is included to provide appropriate information, data and new technologies to the Project. The topics and scope of research will be selected to be useful for the implementation of the Project. Specific research topics and areas will be identified in the course of Project implementation. Different researches can be undertaken through universities, NGOs and research organizations. The results of researches would be disseminated through the annual review meeting among EB members, publications and other means. The results will be utilized by EB members and VSS for the execution of their works, as well general public when interested. Websites have become a powerful tool for the promotion of research results. Some indicative insights are provided in the following sections.

5.4.1 Biodiversity and Wildlife Study

- a) Movement and habitat requirements of elephants;
- b) Assessment of biodiversity locality;
- c) Feasibility study of potential eco-tourism sites;
- d) Ecosystem assessment at pre/post Project;
- e) Pilot study to assess the impact of PA declaration on nature and level of livelihood.

5.4.2 Tree Improvement and Silvicultural Research

- a) Survey of high quality seed sources for major NTFP and medicinal plants;
- b) Propagation and planting techniques for NTFP and major medicinal plants;
- c) Analysis of growth and productivities of NTFP and major medicinal plants at experimental plantations;
- d) Tree breeding and genetic improvement of NTFP and major medicinal plants
- e) Diversion of mangrove species in the higher ground area; and
- f) Introduction of non-mangrove species in the higher ground area.

5.4.3 Socio-Economic Research

In order to further develop the potential areas with regard to livelihood and use/process of existing NTFP/ medicinal plants through the implementation of the project, the Project may support research on socio-economic surveys in rural societies. The research topic will be the various application models of JFM concept and approach, gender mainstreaming throughout the Project, development of local knowledge database regarding demands/use of medicinal plants at tribal communities, utilization of less known NTFP/medicinal plants and the improvement of processing techniques.

5.5 Publicity and Communication

Under the Project, “Publicity and Communication” is viewed as a means of extensive collaboration with effective internal/external communications, and as an educational tool for public awareness on various issues on JFM and educational campaigns for VSS.

5.5.1 Information Dissemination

To disseminate information at field level to create awareness amongst VSS and other stakeholder, PMU will be equipped with a campaign van with a TV and DVD player that would function as a mobile theater to show

various publication videos and films. DMU and FMU staff members will hold a series of seminars during VSS meetings to promote information dissemination using field publicity equipment comprising a laptop computer, multi-media projector and video camera which will be deployed at DMU offices.

Based on both visual and written records, publications as well as multi-media educational contents will be compiled in PMU, which will be shared amongst various FMUs for information dissemination to all target VSSs.

5.5.2 Public Awareness

Specialized contents such as forest fire protection and impact of shifting cultivation will also be compiled at PMU and publicized through radio and TV programs, newspapers, formal education for children and other government publications. Through the wide public awareness campaign and advertisements, people would become more aware of the environment and the Project.

5.5.3 Publication

Publication of newsletters, leaflets, leaflets, and brochures will be administered at PMU based on the information collected through filed level publicity activities. Newsletters outlining the Project activities would be issued quarterly. Leaflets to be issued monthly will discuss issues such as forestry technologies, forestry species, farm forestry, NTFP, marketing, income generating activities, etc. Since these publications will be distributed to VSSs and village level, they will be prepared both in English and Oriya. Brochures will be prepared annually mainly to publicize the Project activities and progress.

Multi-media CDs highlighting the activities of various VSSs will also be prepared in local language with the participation of VSS members. Recording of the contents will be undertaken by FMU staff, then, editing and compilation of the CDs will be done at PMU level with the help of professional editors and producers. Contents of these CDs will be disseminated to the VSS members and other villagers through field publicity activities by FMU staff members.

5.5.4 Website Development

The Project website will be developed as a collaborative environment in Oriya and English languages, utilizing a template driven “Content Management System (CMS)” which is a simple to use application for publishing content on the website. The system will allow the content to be input either online or offline, with editing and uploading to the website via user friendly administration or backend interface to minimize any technical difficulties.

The website will have image gallery, articles and submissions system, BLOG, drawing applet, banners, featured links, comments, forums, polls, FAQs, surveys, newsletters, web-mail, and newsreader as usual features.

5.6 Monitoring and Evaluation

5.6.1 Establishment of Data Base

- a) Baseline survey: Baseline data of beneficiary households needed to be established at the beginning of project to provide a benchmark to assess Project impacts. To this end, a household survey using a questionnaire and the individual interviews will be conducted. Prior to the execution of the household survey, a master list of target villages will be developed for the sampling, and the required questionnaire and guidelines will be prepared by Project consultant.

Assuming the number of target villages would be 2,500, at least 334 villages will be randomly selected to ensure statistical accuracy. In addition, 20 control villages (villages without the Project) will be selected and surveyed.

Questionnaire interviews of all households in the sample villages will be undertaken by a group of interviewers selected from among the community people and trained by the Project consultants. The consultants will supervise the field interviews, compilation of data and data processing. The consultants are responsible for statistical analysis of household survey also.

- b) Collection of secondary data: In addition to the data from the household survey, PRA during the micro planning and GIS data outlined in the following sections, any available secondary data will be collected, organized and compiled in a format that is useful for the Project, particularly with regard to the monitoring and evaluation. Such data would include, but not limited to: i) census, ii) BPL census. iii) forestry statistics, iv) human development index, v) data on natural disasters, and vi) data on meteorology.
- c) Developing GIS data base: In order that the Project can interpret its project areas, is able to plan appropriately and to scientifically evaluate the physical progress and impact, a proper GIS data base for the Project will be developed.

5.6.2 Establishment of Management Information System (MIS)

MIS implementation under OFSDP is proposed in two phases:

In the first phase (spread over 3 months), simple to use and quick to deploy MIS application at PMU/DMU level will be developed and deployed to compile and consolidate the data in a prescribed format. Data entry modules for collection and processing of socio-economic data from the baseline survey will be created in the first phase for use in the PMU. This database will form the basis for mid-term, and post- completion impact studies.

In the second phase (spread over 6 months), FMU level MIS will be initiated in due course. The FMU level MIS will be designed to store data and produce reports relating to the FMU level operations such as micro plan, project site descriptions, plantation history, harvest and disposal of produce, village level information, and accounting module for expenditure accounting under different budget headlines. The second phase on the MIS project possibly envisages the integration of GIS with MIS.

5.6.3 Progress Monitoring and Evaluation

- a) Regular monthly monitoring by PMU: All FMUs and NGOs will prepare a monthly progress report in accordance with standardized formats. The report from FMU and NGOs will consist mainly of information on physical progress in all on-going components as well as the accounting (fund disbursement statement). All members of FMU will undergo a training session on report writing, monitoring and evaluation.

All DMUs will prepare their monthly progress report by consolidating the reports from the FMUs and NGOs, which will be verified by DMU staff members through field inspections and report review meetings. The contents of reports from FMUs and NGOs will be validated by the DMU Chief (DFO) through an appropriate procedure. The monthly progress report of the DMU will contain not only the compiled information from the FMU but also narrative descriptions of field activities, problem encountered, actions taken, lessons learned and the future plan.

PMU will prepare its Project monthly progress report by compiling DMU level progress reports and will submit to the Governing Body of the EB. Based on the data compiled and information analyzed, PMU will implement feedback actions.

- b) Regular quarterly monitoring: Based on the monthly progress report, PMU will prepare quarterly reports in which all major activities, results, findings, analysis and future plan will be illustrated. This report will be submitted to JBIC and the Governing Body as well as each District Advisory Committee.

- c) Bi-Annual project review: Based on the quarterly report, the bi-Annual report will be prepared by PMU and endorsed by the Governing Body before submission to the High Power Committee (HPC). It will clearly illustrate the comparison between the physical targets and actual achievements, as well as the situation of fund disbursement, problems and countermeasures. Based on the report, HPC will make decisions for future actions. In addition to the bi-annual report, PMU is also responsible for producing the annual report, which would be open to the public.

5.6.4 Impact Assessment and Monitoring

- a) Physical impact assessment: It is expected that interventions under both JFM and non-JFM modes would improve inherent function of forest/watershed such as mitigating soil erosion from the intervention areas, mitigating peak flood discharge and prolonging/augmenting baseflow by improving water-holding capacity, improving water quality. During the Project period, impacts on mitigation of soil erosion and seasonal water regime would be investigated by a research institute on a contractual basis.

In addition, impacts on the ecosystem by biodiversity intervention will be assessed by comparing pre and post-Project conditions.

- b) Socio-economic impact assessment: Since the ultimate goal of the Project is to bring about a positive change in the livelihood of forest dependents, the baseline data will be collected and household surveys will be undertaken at the mid-term and towards the end of OFSDP to measure the socio-economic impact of project.

For the socio-economic impact survey, the same sample villages used for the baseline survey will be targeted, and the same questionnaire will be used to measure the changes. In addition to the quantitative analysis based on the household survey, a qualitative survey and analysis will also be carried out. For this, the results of PRA during the micro planning and all periodical reports produced by the project will be reviewed. A key informant interview will also be executed with staff members and members of contractors (i.e. NGOs). Impact evaluation meetings and activities will be organized at the village level, possibly using some of the participatory evaluation tools and methodologies.

As in the case of the baseline survey, the consultants are responsible for the assessment, and selected community people will undertake the interviewers for the field questionnaire survey. It is recommended that an impact assessment be undertaken after the completion of the Project.

5.6.5 Project Completion Evaluation

In order to monitor and evaluate the progress of work and achievements, logical frameworks and operation and effect indicators has been developed. Verifiable indicators will be predetermined to measure the progress and achievements of overall goals, purpose and outputs of the Project. The specific target should be determined after the database establishment activities, and the logical framework should be reviewed and revised periodically.

5.7 Phase-Out/Phase-In Activities

5.7.1 Project Completion Certificate

Upon completion of the proposed intervention to a JFM area and the VSS concerned, PMU will issue a completion certificate to the VSS based on field verification conducted jointly by and among the VSS and the DMU/FMU concerned. As an attachment to the certificate all the recorded activities undertaken by the VSS will be compiled in a predetermined format. The attachment will also describe status and capability of the VSS evaluated by the FMU concerned with necessary post-Project activities.

5.7.2 Conversion of PMU to a Training / Research Institute

As the Project ends, the PMU as an independent society will lose its Project management purpose. The majority of staff members would return to their own departments and positions from which they were seconded. However, during the course of the Project the PMU would develop infrastructure, knowledge and human resources that should be utilized for the further progress of larger goals. The PMU might retain a number of key staff members, and continue albeit with different purposes and objectives.

PMU after the Project would function as a GIS laboratory for forest development and protection. It can also function as a library and knowledge bank on JFM and forestry-related livelihood development, providing seminars, training programme, consulting services and research assistance to the departments and other interested groups. It can also become a secretariat of the central federation of VSSs and tribal SHGs.

A series of meetings and workshops with stakeholders will be organized for the PMU to determine its function and purpose after the Project is over. Based on the agreed basic direction, PMU will formulate a specific action plan for its transformation and undertake appropriate legal procedures to legitimize its status.

5.7.3 Preparation of Phase-Out / Phase-In Plan of VSS

Ideally, VSSs should be self-sustaining financially and organizationally. The Project would make a significant investment during its implementation period to the VSSs, which are expected to develop adequate financial, physical, human and social capitals allowing them to carry out the activities and grow further. For the VSSs to become operational without intensive external assistance and interventions, they should prepare a plan in which the proper utilization of accumulated capital in the future would be specified. Also, resource mobilization and fund raising without the Project should be thought out during the planning process.

This Phase-Out / Phase-In planning would be facilitated by either FMU or local NGOs when available and appropriate and undertaken in a participatory manner so that the majority of VSS members could be aware of their new roles for the post-project phase of JFM activities.

5.7.4 Preparation of Phase-Out / Phase-In Plan of SHG

The SHG development and IGA component of the Project are designed to make the SHG a financially self-sustaining micro enterprise from the outset. However, those SHGs or micro enterprises would receive intensive technical assistance and market support from the Project. The SHG should prepare their operations without such assistance after the Project. For this to occur, a series of workshops and meetings should be organized among the SHG members to discuss their weaknesses and plan for further growth.

During this stage, the initial attempt to federate the SHGs under the Project should be seriously considered, and a long-term, viable and practical plan for the strengthening of such a federation should be formulated under the Project by the key leaders among SHG communities.

6. Consulting Services

6.1 Scope of Work and TOR

A Project consultant is expected to provide the EB with overall consulting services on technical and managerial aspects and policy initiatives relating to Project implementation. Its tentative main tasks would cover, but subject to further discussion, the following area.

Objectives: The objective of the technical assistance is to assist EB in the improvement of processes and procedures for project implementation at the state, division and field levels.

Scope of the Technical Assistance: The tentative scope of the services of the Project consultant is as follows:

Project Management

The consultant is expected to provide services for overall Project management, in particular including:

- a) Assisting EB in formulation of the VSS Management Guideline (manual).
- b) Assisting EB in procurement of contractors.
- c) Assisting EB in annual planning and report preparation.
- d) Assisting EB in fund management.
- e) Assisting EB in establishing a fast, efficient and reliable system of reporting of financial and physical accomplishments from the field and disbursement of funds to the field.
- f) Reviewing, analyzing and recommending improvements in existing related policies and guidelines.

Project Implementation at the Field Level

- a) Validate the needs and technical feasibility of plantation design, infrastructure design, designs of other related facilities (e.g. nursery) and biodiversity- related work
- b) Provide technical assistance to DMU and FMU in survey and mapping, community organizing, community/ tribal development, training, MIS, research and other activities of EB.
- c) Monitor the performance of NGO contractors, survey and mapping contractors, infrastructure development contractors, contractors for training and other contractors
- d) Estimate the work volume and cost to be compiled in an annual plan. Provide technical assistance for supervision and management of work.

Terms of Reference, Man-Month Schedule and Cost Break Down of Consulting Services

BROAD TOR FOR CONSULTING SERVICES

A project Consultant (Consulting firm) will be providing the EB with overall consulting services on technical and managerial aspects and policy initiatives relating to programme implementation. International consultant will guide the national consultants and EB.

Required Man-Month Input:

International Consultant:

Position	Man-month
Community Development Specialist	18
Biodiversity specialist	6
Mangrove/ Coastal management expert	6
Monitoring and evaluation expert	14
Total MM	44

National/ Local Consultant:

Position	Man-month
Team leader & Community Development Specialist	40
<i>Capacity Development Specialist</i>	36
<i>Livelihood Improvement Specialist</i>	36
<i>Biodiversity Specialist</i>	6
<i>GIS Specialist</i>	28
<i>M&E, MIS Specialist</i>	30
<i>Total MM</i>	176

Supporting Staff:

Position	Man-month
Office Manager	40
<i>Personal Assistant</i>	40
<i>Office Assistant</i>	40
<i>Computer Assistant</i>	40
<i>Driver 1</i>	40
<i>Driver 2</i>	40
<i>Security</i>	40
<i>Field Level Expert</i>	252
<i>Total MM</i>	532

Objectives:

1. To provide technical assistance to assist EB in process improvement, specifying procedures for project implementation at PMU, DMU, FMU and VSS levels.
2. The firm will procure required individual experts in different fields specified above under approval of PMU.
3. To provide assistance to EB in organizing State/ National level and international training, exposure visit of EB members.
4. To procure and provide requisite accessories such as equipments, vehicle required for project implementation

Scope of the Technical Assistance:

The tentative scope of the services of the project consultant is as follows;

A. Project Management

The consultant is expected to provide services for overall project management, in particular including:

- A.1 Provide support in preparation of the Project Procurement Procedures Manual based on the Project's established procurement parameters and the JBIC's procurement rules and guidelines. Assisting EB in monitoring and management of VSS and SHG.
- A.2 Develop a database of service providers in the areas of bio-diversity, institutional development, M&E, livelihood, etc procurement process for the bids, and provide support in the selection of the short lists and pre-qualification of suppliers (staff, consultant, hardware, etc.) where necessary.
- A.3 Assisting EB in procurement of contractors, individual experts. Provide support in preparation of JBIC's customized Bidding Documents and Request for Proposals (RFP) including standardized Forms to be used for local contracts in Orissa
- A.4 Assisting EB in designing Annual planning schedule, Reliable system of Reporting formats for monitoring financial and physical accomplishment from the field and disbursements of fund to the field.
- A.5. Designing a computerised project management system providing for a breakdown of project tasks according to various participating agencies, scheduling of tasks on annual basis, determining milestones for project tasks, identifying bottlenecks in implementation and assisting EB to overcome it.
- A.6. Installing the CPM and MIS in all programme districts and training programme staffs to implement the system
- A.7. Designing a participatory evaluation (M&E) methods which enable participants to assess their progress, track the impact of their actions and revise their strategies accordingly.
- A.8. Designing a list of indicators for performance monitoring consistent with programme objectives. The methodology and tools to measure each indicator are to be developed.
- A.9. Assisting EB in undertaking periodical and mid term evaluation and reviews.
- A.10. Viewing analyzing, and recommending improvements in existing related policies and guidelines.
- A.11. Assist EB in designing training schedule for stakeholders

B. Project implementation at the field level

- B.1. Assist DMU and FMU in establishing baseline data and GIS base data
- B.2. Provide technical assistance to DMU and FMU in survey and mapping, community organizing, community development, MIS and other related activity of EB.
- B.3. Provide assistance and guidance to DMU/FMU/NGO in community development and microenterprise development.
- B.4. Assisting EB in Monitoring the performance of NGO, contractors, survey and mapping contractors, contractors for training and other services
- B.5. Provide technical assistance for supervision and management of work.
- B.6. Assist in designing capacity building modules, procedure and process with necessary software for CB for different stakeholders.

C. Procurement of Vehicles, GIS, other equipments

The consultant will procure requisite accessories such as vehicles, equipment with approval of PMU.

D. National and International Training

The consultant will plan and organize State/National and international training for MU/DMU/FMU staffs in consultation with PMU.

Terms of reference for developing micro plan preparation guideline and VSS management manual

Orissa Forestry Sector Development Project (OFSDP) require consultancy for developing micro plan preparation guideline, base line survey guide lines covering socio- economic parameters and VSS management manual. The organizations of National repute having expertise in the field may file their bid for consideration.

Objective: Producing a document giving details methods and procedures of VSS management, base line survey in project villages and micro-plan preparation including formats, monitoring tools, performance indicators, evaluation criteria, training need of OFD members, VSS members, and NGOs.

Scope:

1. Preparation of first draft manual and guide lines
2. Discussion and receipt of feed back at Range/ Division/ Circle level
3. Preparing final draft manual and guidelines
4. Discussion in State level workshop
5. Submission of Final document in 5 hard and one soft copy.

Time period: 4 MM from May 2006 to August 2006.

Terms of reference for developing Operational Manual

Orissa Forestry Sector Development Project (OFSDP) require consultancy for developing Operational Manual for implementing OFSDP. The organizations of National repute having expertise in the field may file their bid for consideration.

Objective: Producing a document giving details of rules and procedures pertaining and relevant to state of Orissa including formats for implementation of the project including role, responsibilities and functions of OFD members, VSS members, and NGOs.

Scope:

Preparation of first draft manual

Discussion and receipt of feed back at Range/ Division/ Circle level/State level

Preparing final draft manual and guidelines

Submission of Final document in 5 hard and one soft copy.

Time period: 3 MM from May 2006 to August 2006.

Cost Breakdown of Consulting Services

Description	Unit	Unit Price	Total Quantity	2005		2006		2007		2008		2009		2010		2011		2012		2013		
				Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity
I Foreign Cost																						
1 Remuneration for Professional A																						
1 Community Development Specialist	NMA	2,500,000	13	32,500,000	0	15,000,000	3	7,500,000	6	15,000,000	0	0	0	0	0	0	0	0	0	0	0	
2 Advisory Specialist	NMA	2,500,000	9	22,500,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 R&A Specialist	NMA	2,500,000	15	37,500,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4 Manager/Casual Specialist	NMA	2,500,000	6	15,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Direct Cost																						
1 Accommoda.	ex	1,100,000	1,320	1,452,000	0	990,000	240	2,640,000	450	4,950,000	420	4,620,000	0	0	0	0	0	0	0	0	0	
2 Overseas Per Diem Allowance	ex	3,500	1,320	4,620,000	0	315,000	240	840,000	450	1,575,000	420	1,470,000	0	0	0	0	0	0	0	0	0	
3 International Travel																						
1 Air Fares (Tokyo to Rabothenes)	R.T	36,000	12	432,000	0	262,000	2	72,400	4	1,448,000	0	0	0	0	0	0	0	0	0	0	0	
2 Visa, Vaccination & Insurance	R.T	20,000	12	240,000	0	20,000	2	40,000	4	80,000	0	0	0	0	0	0	0	0	0	0	0	
3 Local Expenses	R.T	64,000	12	768,000	0	54,000	2	648,000	4	2,520,000	0	0	0	0	0	0	0	0	0	0	0	
4 Remuneration, Transportation and Passage	month	50,000	3	1,500,000	0	300,000	3	1,500,000	6	3,000,000	0	0	0	0	0	0	0	0	0	0	0	
5 Repatriation Flight																						
1 Annual Study Report	L.S	400,000	1	400,000	0	100,000	1	100,000	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total																						
				136,442,000		171,511,000		24,872,000		38,363,000		43,424,000		6,386,000		6,386,000					6,386,000	
II Local Cost																						
1 Remuneration for Professional B																						
1 Senior Lecturer & Community Development Specialist	NMA	100,000	200	20,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Senior Lecturer & Specialist	NMA	160,000	300	48,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 Value of Imported Equipment	NMA	160,000	300	48,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4 University Specialist	NMA	160,000	300	48,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5 R&A Specialist	NMA	160,000	300	48,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6 R&A Specialist	NMA	160,000	300	48,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7 Project Management Consultant	NMA	160,000	300	48,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8 Senior Lecturer & Specialist	NMA	160,000	300	48,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total																						
				Rs		Rs		Rs		Rs		Rs		Rs		Rs					Rs	
1 Preparation for Supporting Staffs																						
1 Office Manager	NMA	80,000	40	3,200,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Office Assistant	NMA	80,000	40	3,200,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 Computer Assiant	NMA	80,000	40	3,200,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4 Driver 1	NMA	30,000	60	1,800,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5 Driver 2	NMA	30,000	60	1,800,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6 Ability Man	NMA	15,000	40	600,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7 Security	NMA	20,000	40	800,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8 Field level Expert (including mobility and logistic)	NMA	80,000	25	2,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total																						
				0		0		0		0		0		0		0					0	
3 Direct Cost																						
1 Office Rental and cover etc.	M	50,000	40	2,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Office Supply Unit cost	M	40,000	40	1,600,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 Telephone	M	12,500	40	500,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4 Vehicle Purchase Cost (Equipment and Furniture)	M	700,000	2	1,400,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5 Vehicle Purchase Tax (to be Purchase by P/O)	M	45,000	2	90,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6 Motor Cost for Vehicle	M	80,000	40	3,200,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7 Communication Cost	M	50,000	40	2,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8 Printing Cost (L.S)	M	50,000	40	2,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Overseas Training																						
1 Per Diem & Subsistence Allowance																						
a) Per Diem & Subsistence Allowance																						
b) International Air Fare																						
c) Traveling Cost of Study Tour																						
d) Accommodation																						
e) Course Fee																						
f) Miscellaneous																						
g) National Training																						
h) Per Diem & Subsistence Allowance																						
i) Air Fare																						
j) Traveling Cost of Study Tour																						
k) Accommodation																						
l) Course Fee																						
m) Miscellaneous																						
Total (FC)																						
				20,430,000		0		6,310,000		13,620,000		13,620,000		0		0					0	
Total (LC)																						
				130,240,000		0		9,502,500		31,200,000		37,460,000		31,900,000		18,712,500		800,000				0
Total of Local Cost																						
				348,972,000		23,885,325		85,143,000		106,805,000		70,655,100		46,606,575		1,092,000						0
Total (FC)																						
				56,872,000		0		31,823,000		51,833,000		43,424,000		6,386,000		0						0
Total (LC)																						
				130,240,000		0		9,502,500		37,460,000		37,460,000		31,900,000		18,712,500		800,000				0
Grand Total																						
				425,411,600		0		41,855,325		145,158,100		123,079,100		46,606,575		8,578,000						0

Detailed Implementation Schedule

	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6				Year 7				Year 8						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3
I Preparatory Work																																			
1 Establishment of EB, Operational Manual																																			
2 procurement of project Consultant																																			
3 JFM Site Selection																																			
4 Preparatory Work for Micro Plan Formulation, survey etc																																			
II Strengthening of Executing Body																																			
1 Improvement of Infrastructures for PMU																																			
2 Renovation/Extension of DMU Office Buildings																																			
3 Renovation/Extension of FMU Office Buildings																																			
4 Facility/Equipment Improvement																																			
5 Mobility Improvement																																			
6 Capacity Development (incl. TOT)																																			
III Capacity Building of VSSs																																			
1 Community Organizing																																			
2 VSS Management & Microplan Prep. Guideline Development																																			
3 Preparation of Micro Plan																																			
4 Training, Coaching and Information Dissemination																																			
5 Exposure Trips																																			
6 Improvement of VSS Facilities and Equipment																																			
7 Empowerment of VSSs																																			
8 Special training for selected VSS members at DMU																																			
IV Community/Tribal Development																																			
1 Entry Point Activities (Small-scale village infrastructure development)																																			
2 Supporting for Income Generating Activities																																			
3 Livelihood Improvement																																			
V Biodiversity Conservation																																			
1 Ecotourism Development																																			
2 Mitigating Man-Animal Conflicts																																			
3 Establishment of Community Reserves/Heritage Sites (For 5-year)																																			
VI Forest Management under JFM Mode																																			
1 Establishment of Decentralized Nursery																																			
2 Forest Type Improvement																																			
3 Rehabilitation of Degraded Forest																																			
4 Fire Protection																																			
5 Coastal Plantation Establishment																																			
VII Forest Management under Non-JFM Mode																																			
1 Consolidation and Demarcation of Forest Boundaries																																			
2 Construction/Improvement of Permanent Nursery																																			
3 Forest Type Improvement																																			
4 Artificial Regeneration																																			
5 Fire Protection																																			
6 Prevention of Illicit Felling																																			
VIII Farm Forestry Development																																			
1 Planting stock production and distribution																																			
2 Demonstration Centre																																			
3 Extension Services																																			
IX Infrastructure Development																																			
1 Forest Road Construction/Improvement/Rehabilitation																																			
2 Link Road Construction/Improvement/Rehabilitation																																			
X Forest Researches																																			
XI Publicity and Communication																																			
XII Monitoring and Evaluation																																			
XIII Phase-out and Phase-In Activities																																			
XIV Consulting Services																																			

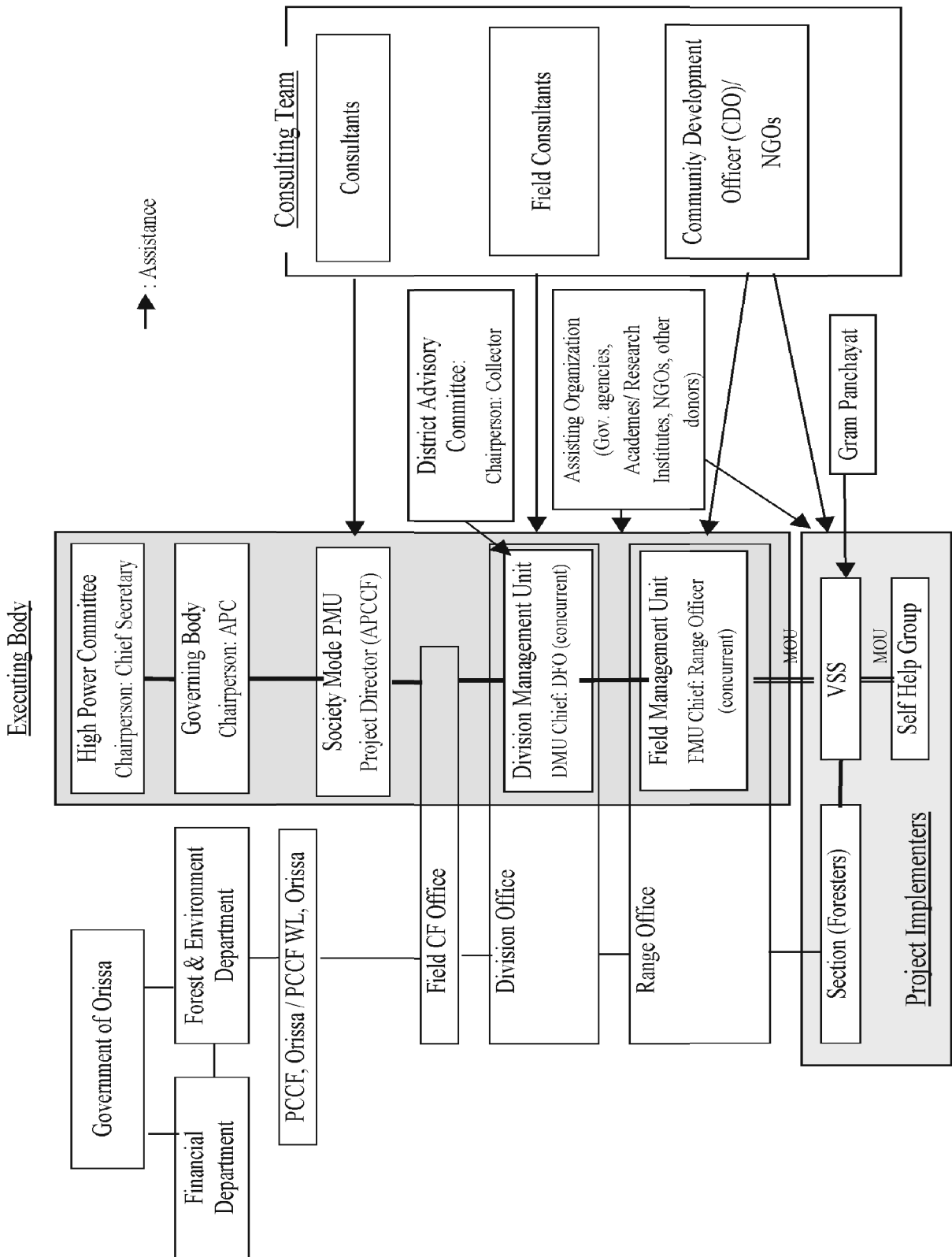
Detailed Annual Fund Requirement

Base Year For Cost Estimator: Sep. 2005
 Exchange Rates: Rs = yen 2.49
 Price Escalation: FC: 1.3% LC: 1.0%
 Physical Contingency: 5%
 Physical Contingency for Consultant: 5%

FC & Total: million JPY
 LC : million Rs

Item	Total		2005		2006		2007		2008		2009		2010		2011		2012										
	FC	LC	FC	LC	FC	LC	FC	LC	FC	LC	FC	LC	FC	LC	FC	LC	FC	LC									
A. ELIGIBLE PORTION																											
1) Procurement / Construction	0	5,216	0	0	0	269	670	0	548	1,366	0	1,324	3,296	0	1,116	2,778	0	331	823	0	203	805					
Restoration of degraded forests	0	2,601	0	0	0	0	0	0	51	127	0	680	1,632	0	753	1,874	0	207	516	0	134	934					
Coastal plantation	0	128	0	0	0	0	0	0	0	0	0	37	91	0	44	110	0	7	18	0	2	6					
Biodiversity management	0	126	0	0	0	0	0	0	0	0	0	30	75	0	49	122	0	5	13	0	5	13					
Community / tribal development incb.	0	1,227	0	0	0	0	0	0	288	592	0	471	1,174	0	329	819	0	44	109	0	27	68					
Capacity building of VSSs	0	700	0	0	0	0	254	632	0	223	566	0	100	248	0	37	91	0	33	83	0	11	28				
Supporting activities																											
Base cost for JIBC financing	0	4,783	0	0	0	0	254	632	0	512	1,275	0	1,317	3,230	0	1,211	3,017	0	297	738	0	180	449				
Price escalation	0	156	0	0	0	0	3	6	0	10	26	0	40	99	0	49	122	0	18	45	0	13	32				
Physical contingency	0	248	0	0	0	0	13	32	0	26	65	0	68	169	0	63	157	0	16	39	0	10	24				
2) Consulting services	164	141	0	0	0	18	10	44	34	119	57	41	158	48	35	135	0	21	51	7	1	9	0				
Base cost	157	131	0	0	0	17	10	41	32	111	52	37	145	43	32	123	0	19	47	6	1	8	0				
Price escalation	7	4	0	0	0	0	0	1	1	2	2	1	5	2	1	6	0	1	2	1	0	1	0				
Physical contingency	8	7	0	0	0	1	0	2	2	6	3	2	8	2	2	6	0	1	2	0	0	0	0				
Total (1 +II)	172	5,357	0	0	0	18	279	714	34	582	1,484	57	1,466	3,706	48	1,359	3,431	0	1,136	2,830	7	331	832	0	203	806	
B. NON ELIGIBLE PORTION																											
a Land Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Base cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Price escalation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Physical contingency	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
b Administration cost	0	814	0	0	0	0	43	107	0	89	223	0	223	556	0	207	515	0	170	424	0	50	126	0	30	76	
c VAT	0	37	0	0	0	0	1	2	0	6	15	0	6	16	0	6	16	0	6	16	0	6	16	0	5	13	
d Service Tax	0	150	0	0	0	0	8	20	0	22	56	0	24	59	0	24	60	0	24	60	0	24	60	0	24	60	
Total (a+b+c+d)	0	1,001	0	0	0	0	52	129	0	118	293	0	253	631	0	237	590	0	201	500	0	81	201	0	60	148	
TOTAL (A+B)	172	6,359	0	0	0	18	331	842	34	700	1,778	57	1,719	4,337	48	1,596	4,021	0	1,337	3,330	7	412	1,033	0	263	654	
C. Interest during Construction	433	0	433	0	0	0	5	0	5	17	0	17	45	0	45	70	0	70	92	0	92	100	0	100	104	0	104
GRAND TOTAL (A+B+C)	605	6,359	433	0	0	0	24	331	848	51	700	1,794	101	1,719	4,332	119	1,596	4,092	92	1,337	3,422	107	412	1,132	104	268	758

Organization Chart for Implementation



Details of Procurement Method

Item	Implementation		
	Proponent/ Owner	Executor/ Contractor	Method
I. Preparatory Works			
1 Establishment of EB			
1.1 Formation of EB and preparation of operation manual	OFD	OFD/Expert	Force Account
1.2 Training needs analysis	PMU	Experts	Individual Contract
1.3 Developing training programme	PMU	Experts	Individual Contract
2 Site Selection			
2.1 Preparation of Vegetation/Land Use Map (1/50,000)	PMU	ORSAC	Price Quotation
2.2 Preparation of Site Selection Criteria	PMU	PMU	Force Account
2.3 Selection of priority area for JFM	DMU	FMU	Force Account
2.4 Selection of target communities/VSS (exist.)	DMU	FMU/VSS	Force Account
2.5 Demarcation of JFM Area per new VSS	PMU	Mapping Firm	Local Bidding
3 Preparatory Work for Micro Plan Formulation			
3.1 Preparation of micro planning guideline	PMU	Consultant	Force Account
3.2 Ground survey and mapping for JFM areas	PMU	Mapping Firm	Local Bidding
II. Strengthening of Executing Body (EB)			
1 Improvement of Infrastructures for PMU			
1.1 Plan, Design & Cost Estimate	PMU	Consultant	Local Bidding
1.2 Extension of PMU Office/Building	PMU	CEC	Local Bidding
2 Extension of DMU Office Buildings			
2.1 Plan, Design & Cost Estimate	DMU	DMU	Force Account
2.2 Extension of DMU Office/Building	DMU	CEC	Local Bidding
3 Extension of FMU Office Buildings			
3.1 Plan, Design & Cost Estimate	DMU	FMU	Force Account
3.2 Extension of the Existing Office	DMU	CEC	Local Bidding
4 Facility/Equipment Improvement			
4.1 Procurement of computers and accessories	PMU	Dealer	Price Quotation
4.2 Procurement of Office Equipment and Furniture	PMU/DMU	Dealer	Price Quotation
4.3 Procurement of Wireless telecommunication Facilities	PMU	Dealer	Price Quotation
4.4 Procurement of Survey Equipment and Instruments	PMU	Dealer	Price Quotation
5 Mobility Improvement			
5.1 Procurement of 4-WD Type Vehicles (DMUs)	PMU	Dealer	Price Quotation
5.2 Procurement of Motorcycles (FMUs)	DMU	Dealer	Price Quotation
6 Capacity Development			
6.1 Training for PMU/DMU/FMU Staff	PMU	Expert	Individual Contract
6.2 Fostering GIS and MIS Experts (PMU)	PMU	Expert	Individual Contract
6.3 Study Tour for DMU/FMUs Staff	PMU	Expert	Individual Contract
6.4 Annual Review Seminar	PMU	PMU/DMU	Price Quotation

Orissa Forestry Sector Development Project

Item	Implementation		
	Proponent/ Owner	Executor/ Contractor	Method
III. Capacity Building of VSS			
1 Community Organizing			
1.1 First 3 years	DMU	NGO	Local Bidding
1.2 After 4th years	DMU	FMU	Force Account
1.3 Formulation of VSS Management Manual	PMU	Consultant	Force Account
2 Preparation of Micro Plan			
2.1 First 3 years	DMU	NGO	Local Bidding
2.2 After 4th years	DMU	FMU	Force Account
3 Training, Coaching and Information Dissemination			
3.1 First 3 years	DMU	NGO	Local Bidding
3.2 After 4th years	DMU	FMU	Force Account
4 Exposure Trips	DMU	FMU	Force Account
5 Improvement of VSS Facilities and Equipment			
5.1 Design and Cost Estimate	DMU	FMU	Force Account
5.2 Construction	DMU/FMU	VSS	MOU
IV. Community/Tribal Development			
1 Entry Point Activities			
1.1 Selection of EPA			
1.1.1 First 3 years	DMU	NGO	Local Bidding
1.1.2 After 4th years	DMU	FMU	Force Account
1.2 Design and Cost Estimate of the selected EPA	DMU	DMU	Force Account
1.3 Implementation of the designed EPA	DMU/FMU	VSS	MOU
2 Supporting for Income Generating Activities			
2.1 Formation/Identification of SHG			
2.1.1 First 3 years	DMU	NGO	Local Bidding
2.1.2 After 4th years	DMU	FMU	Force Account
2.2 Market Research	PMU	Research Institute	Local Bidding
2.3 Capacity Building of the SHGs concerned			
2.3.1 First 3 years	DMU	NGO	Local Bidding
2.3.2 After 4th years	DMU	FMU	Force Account
2.4 Market Linkage Support	PMU	Research Institute	Local Bidding
2.5 Support for IGA operation	DMU	Dealer/SHG	Price Quotation
3 Livelihood Improvement			
3.1 Technical support (First 3 years)	DMU	NGO	Local Bidding
3.2 Technical support (After 4th years)	DMU	FMU	Force Account
3.3 Procurement of medicines, payment for medical testing, payment for fuel-efficient devises	DMU	DMU	Force Account

Item	Implementation		
	Proponent/ Owner	Executor/ Contractor	Method
V. Biodiversity Conservation			
1 Ecotourism Development			
1.1 Destination Development			
1.1.1 Detailed Design for Destination Development	PMU	Consultant	International Bidding
1.1.2 Implementation of Destination Development	DMU/FMU	VSS	MOU
1.2 Training	PMU	Expert	Individual Contract
1.3 Building marketing linkage	PMU	Ad Agency	Local Bidding
2 Mitigating Man-Animal Conflicts			
2.1 Habitat Management			
2.1.1 Plan and Design	DMU	DMU	Force Account
2.1.2 Implementation	DMU	FMU/VSS	F. Account/MOU
2.2 Fire protection			
2.2.1 Design	DMU	DMU	Force Account
2.2.2 Implementation	DMU	FMU/VSS	F. Account/MOU
2.3 Provision of Corridors for Elephant Movement	DMU	FMU/VSS	F. Account/MOU
2.4 Provision of Physical Barriers for Corridors	DMU	FMU/VSS	F. Account/MOU
2.5 Formation of anti-depredation squads			
2.5.1 Provision of equipment	DMU	Dealer (fire fighting equipment)	Price Quotation
2.5.2 Training squad members	DMU	FMU	Force Account
3 Eco-development on the Peripheries of PAs			
3.1 First 3 years	DMU	NGO	Local Bidding
3.2 After 4th years	DMU	FMU	Force Account
4 Establishment of Community Reserves and Heritage Sites			
4.1 Developing Site Selection Criteria	PMU	DMU	Force Account
4.2 Area Identification and Demarcation	PMU	Mapping Firm	Local Bidding
4.3 Declaration of the Sites	PMU	OFD	Force Account
4.4 Developing Management Plan and Manual	PMU	DMU	Force Account
4.5 Management of the Sites	DMU/FMU	VSS	MOU
VI. Forest Management under JFM Mode			
1 Decentralized Nursery Establishment			
1.1 Selection of VSSs for Decentralized Nursery Development	DMU	FMU/VSS	Force Account
1.2 Establishment of Decentralized Nurseries	DMU/FMU	VSS	MOU
2 Rehabilitation of Degraded Forest			
2.1 Soil and Moisture Conservation	DMU/FMU	VSS	MOU
2.2 Assisted Natural Regeneration	DMU/FMU	VSS	MOU
2.3 Block Plantation	DMU/FMU	VSS	MOU
3 Fire Protection	DMU/FMU	VSS	MOU
4 Coastal Plantation Establishment			
4.1 Mangrove Species Plantation	DMU/FMU	VSS	MOU
4.2 Non-mangrove Species Plantation Establishment	DMU/FMU	VSS	MOU

Orissa Forestry Sector Development Project

Item	Implementation		
	Proponent/ Owner	Executor/ Contractor	Method
VII. Forest Management under Non JFM Mode			
1 Reinforcement of Exist. Permanent Nurseries	DMU	FMU	Force Account
2 Consolidation and Demarcation of Forest Boundaries	DMU	FMU	Force Account
3 Forest Type Improvement	DMU	FMU	Force Account
4 Artificial Regeneration	DMU	FMU	Force Account
VIII. Farm Forestry			
1 Planting Stock Production and Distribution	DMU/FMU	VSS	MOU
2 Demonstration Centre			
2.1 Design of model firm	DMU	Expert	Individual Contract
2.2 Model firm establishment	DMU	NGO	Local Bidding
3 Model Farms by Farmers	DMU/FMU	Individual farmer	MOU
4 Training and technical guidance	DMU	FMU	Force Account
IX. Infrastructure Development			
1 Forest Road Construction/Improvement/Rehabilitation			
1.1 Plan and Design	PMU	Consultant	Local Bidding
1.2 Construction of New Roads	DMU	CEC	Local Bidding
1.3 Improvement/Rehabilitation of Existing Forest Roads	DMU	CEC	Local Bidding
2 Link Road Construction/Improvement/Rehabilitation			
2.1 Plan and Design	PMU	Consultant	Local Bidding
2.2 New Construction	DMU	CEC	Local Bidding
2.3 Improvement/Rehabilitation of Existing Forest Roads	DMU	CEC	Local Bidding
X. Forest Research			
1 Biodiversity/Wildlife Studies/Surveys	PMU	PMU/OFD	Force Account
	PMU	(partly) Expert	Individual Contract
2 Tree Improvement Studies	PMU	PMU/OFD	Force Account
	PMU	(partly) Expert	Individual Contract
3 Silvicultural Researches	PMU	PMU/OFD	Force Account
	PMU	(partly) Expert	Individual Contract
4 Socio-economic Researches	PMU	PMU/OFD	Force Account
	PMU	(partly) Expert	Individual Contract
XI. Publicity and Communication			
1 Information Dissemination			
1.1 Provision of Publicity Equipment			
1.1.1 Publicity van	PMU	Dealer	Price Quotation
1.1.2 Field level publicity unit	PMU	Dealer	Price Quotation
2 Public Awareness	PMU	Mass Media, etc	Force Account
3 Publication	PMU	Local Bidding	
4 Website Development and Maintenance	Printing Press	Expert	Individual Consultant

Item	Implementation		
	Proponent/ Owner	Executor/ Contractor	Method
XII. Monitoring and Evaluation			
1 Establishment of Data Base for PME			
1.1 Baseline Survey	PMU	Consultant	Local Bidding
1.2 Collection of Secondary Data Available	PMU	DMU/FMU	Force Account
1.3 Developing GIS Data Base	PMU	PMU	Force Account
1.4 Developing Non-GIS Data Base	PMU	PMU	Force Account
2 Establishment of MIS	PMU	Expert	Individual Contract
3 Progress M&E			
2.1 Regular Progress M&E	PMU	DMU/FMU	Force Account
2.2 Periodical Progress M&E	EB	EB	Force Account
4 Project Completion Evaluation	PMU	DMU/FMU	Force Account
5 Project Impact Assessment			
5.1 Physical Impact Assessment	PMU	Expert	Individual Contract
5.2 Socio-economic Impact Assessment	PMU	Expert	Individual Contract
XII. Phase Out / Phase In Works			
1 Phase out work for BE			
1.1 Project Completion Certificate	PMU	PMU/DMU	Force Account
1.2 Conversion of PMU to a Training/Research Institute	OFD	PMU	Force Account
2 Phase in work for VSSs/SHGs			
2.1 Preparation of management plan for VSSs	DMU	FMU/VSS	Force Account
2.2 Preparation of management plan for IGA	DMU	FMU/SHG	Force Account

CEC=Civil Engineering Contractor

Environmental Checklist: 24. Forestry Projects (1)

Category	Environmental Item	Main Check Items	Confirmation of Environmental Considerations
1 Permits and Explanation	(1) EIA and Environmental Permits	(1) Have EIA reports been officially completed? (2) Have EIA reports been approved by authorities of the host country's government? (3) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied? (4) In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government?	<i>Orissa Forestry Sector Development Project (OFSDP) is aimed at improvement of the forests and watersheds of the State. All the activities to be carried out under the project will have a positive impact on the environment. Main activities include afforestation/reforestation of degraded lands and support activities leading to building up of the capacity of the community and the forest department to manage and use forests in a sustainable manner. EIA is not required for this project and the project has been approved by the Department of Forest and Environment, Govt. of Orissa</i>
		(1) Are contents of the project and the potential impacts adequately explained to the public based on appropriate procedures, including information disclosure? Is understanding obtained from the public? (2) Are proper responses made to comments from the public and regulatory authorities?	<i>The community will be actively involved in the implementation of the project. Most of the activities in the project will be carried out through the community.</i>
2 Mitigation Measures	(1) Air Quality	(1) Do air pollutants, such as dust, soot and dust, sulfur oxides (SOx), nitrogen oxides (NOx), and organic chemical substances emitted from various sources, such as logging operations, forest products manufacturing processes, and incinerators comply with the country's emission standards and ambient air quality standards?	<i>There will be improvement in the quality of air as a result of implementation of the OFSDP. No logging operations or large scale manufacturing processes are envisaged in the project.</i>
	(2) Water Quality	(1) Is there a possibility that the use of chemicals, such as fertilizers, and agrochemicals will cause water pollution? (2) Where facilities, such as forest products manufacturing facilities are installed, do effluents from the facilities comply with the country's effluent standards and ambient water quality standards?	<i>1. There is no possibility that the small quantity of fertilisers which will be used in the project will cause water pollution. 2. No forest products manufacturing facilities are to be installed through this project.</i>
	(3) Wastes	(1) Are wastes properly treated and disposed of in accordance with the country's standards?	<i>Yes</i>
3 Natural Environment Areas	(4) Soil Contamination	(1) Are adequate measures taken to prevent contamination of soil and groundwater by use of chemicals, such as agrochemicals?	<i>Yes</i>
	(1) Protected Areas	(1) Is the project site located in protected areas designated by the country's laws or international treaties and conventions? Is there a possibility that the project will affect the protected areas?	<i>Some of the project activities are planned on the fringes of the protected wildlife areas of the State. These activities will be taken up by the Wildlife wing of the State and these activities are planned to have a positive impact on the wildlife and biodiversity of the State.</i>

Environmental Checklist: 24. Forestry Projects (2)

Category	Environmental Item	Main Check Items	Confirmation of Environmental Considerations
3 Natural Environment		<p>(1) Does the project site encompass primeval forests, tropical rain forests, ecologically valuable habitats (e.g., coral reefs, mangroves, or tidal flats)?</p> <p>(2) Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions?</p> <p>(3) Is there a possibility that changes in localized micro-meteorological conditions, such as solar radiation, temperature, and humidity due to a large-scale timber harvesting will affect the surrounding vegetation?</p> <p>(4) Is there a possibility that a large-scale timber harvesting will result in loss of breeding and feeding grounds for wildlife?</p> <p>(5) In the case of reforestation projects, is there a possibility that mono-species plantations will adversely affect wildlife habitats? Is there a possibility that mono-species plantations will cause outbreaks of pests?</p> <p>(6) If significant ecological impacts are anticipated, are adequate protection measures taken to reduce the impacts on the ecosystem?</p>	<p>1. Project activities will be taken up in different types of forest areas of the State including mangroves. The project activities are aimed at protecting and restoring the quality of the ecologically valuable habitat.</p> <p>2. No timber harvesting is planned during the implementation of the project.</p> <p>3. The afforestation activities planned in the project will not adversely affect the wildlife. The afforestation activities will be carried as per prescriptions of the working plan.</p>
	(3) Hydrology	<p>(1) Is there a possibility that alteration of rainwater runoff and runoff characteristics due to a large-scale timber harvesting and access road construction will cause impacts on the hydrology of the surrounding areas?</p> <p>(2) Is there a possibility that decreased water retention capacity due to deforestation will affect the existing drainage patterns of the forest?</p>	<p>1. Forest roads are planned to be improved during the implementation of this project. These roads will be fair weather earthen roads with structure for smooth passage of water. Road construction will not impact the hydrology of the surrounding area.</p> <p>2. No harvesting of timber is planned so there will be no impact on the existing drainage pattern of the forest.</p>
	(4) Topography and Geology	<p>(1) Is there a possibility that loss of forest stability due to timber harvesting will cause slope failures or landslides?</p>	<p>There will be no timber harvesting during the implementation of the project.</p>
	(5) Management of Abandoned Sites	<p>(1) Are adequate restoration and revegetation plans considered for the harvested areas? In particular, are adequate measures taken to prevent soil runoff from the harvested areas?</p> <p>(2) Is a sustainable management system for the harvested areas established?</p> <p>(3) Are adequate financial provisions secured to manage the harvested areas?</p>	<p>1. The OFSP aims at restoring and revegetating the degraded forests of the State. No harvest of timber is to take place during the implementation of this project.</p> <p>2. OFDSP will promote the sustainable management of forests.</p>

Environmental Checklist: 24. Forestry Projects (3)

Category	Environmental Item	Main Check Items	Confirmation of Environmental Considerations
4 Social Environment	(1) Resettlement	(1) Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement? (2) Is adequate explanation on relocation and compensation given to affected persons prior to resettlement? (3) Is the resettlement plan, including proper compensation, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement? (4) Does the resettlement plan pay particular attention to vulnerable groups or persons, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples? (5) Are agreements with the affected persons obtained prior to resettlement? (6) Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan? (7) Is a plan developed to monitor the impacts of resettlement?	1. No resettlement of the people is envisaged in the implementation of the project.
	(2) Living and Livelihood	(1) Is there a possibility that the project will adversely affect the living conditions of inhabitants? Are adequate measures considered to reduce the impacts, if necessary? Is particular attention paid to the inhabitants whose livelihoods are based on primary industries, such as farming, raising livestock, or hunting and gathering in the forests? (2) Are adequate measures taken to prevent illegal entry into the forestry resource areas from the outside through newly constructed access roads?	1. The OFSP aims at improving the living conditions of the people living in the project area. The project aims at improving livelihoods of the forest fringe dwellers and building the capacity of the people to manage the forests in a sustainable manner. The assets developed by the project will be shared by the community in an equitable manner.
	(3) Heritage	(1) Is there a possibility that the project will damage the local archeological, historical, cultural, and religious heritage sites? Are adequate measures considered to protect these sites in accordance with the country's laws?	The project will not damage any archeological, historical, cultural or religious site.
	(4) Landscape	(1) Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken?	The project will help in improving the degraded landscape by afforestation and soil and moisture conservation activities.
	(5) Ethnic Minorities and Indigenous Peoples	(1) Does the project comply with the country's laws for rights of ethnic minorities and indigenous peoples? (2) Are considerations given to reduce the impacts on culture and lifestyle of ethnic minorities and indigenous peoples?	The project complies with the country's laws and rules and regulation for Tribal and indigenous people. The project aims at improving their living standards without impacting their cultural and lifestyle.

Environmental Checklist: 24. Forestry Projects (4)

Category	Environmental Item	Main Check Items	Confirmation of Environmental Considerations
5 Others	(1) Impacts during Construction	<p>(1) Are adequate measures considered to reduce impacts during construction (e.g., noise, vibrations, turbid water, dust, exhaust gases, and wastes)?</p> <p>(2) If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce impacts?</p> <p>(3) If construction activities adversely affect the social environment, are adequate measures considered to reduce impacts?</p> <p>(4) If necessary, is health and safety education (e.g., traffic safety, public health) provided for project personnel, including workers?</p>	<p><i>The project envisage very little of construction activity. All precautions will be taken to reduce impacts of noise and dust during the construction activity.</i></p>
	(2) Monitoring	<p>(1) Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts?</p> <p>(2) Are the items, methods and frequencies included in the monitoring program judged to be appropriate?</p> <p>(3) Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate budget to sustain the monitoring framework)?</p> <p>(4) Are any regulatory requirements pertaining to the monitoring report system identified, such as the format and frequency of reports from the proponent to the regulatory authorities?</p>	<p><i>None of the activities under the OFSDP will have a negative environmental impact so the case of monitoring of the impact does not arise.</i></p>
6 Note	Reference to Checklist of Other Sectors Note on Using Environmental Checklist	<p>(1) Where necessary, pertinent items described in the Agriculture and Livestock Projects, and Irrigation Projects checklists should also be checked.</p> <p>(1) If necessary, the impacts to transboundary or global issues should be confirmed (e.g., the project includes factors that may cause problems, such as transboundary waste treatment, acid rain, destruction of the ozone layer, or global warming).</p>	<p><i>Not applicable</i></p> <p><i>The OSFDP will not have any negative environmental impact inside the country, transboundary or globally.</i></p>

1) Regarding the term "Country's Standards" mentioned in the above table, in the event that environmental standards in the country where the project is located diverge significantly from international standards, appropriate environmental considerations are made, if necessary.
In cases where local environmental regulations are yet to be established in some areas, considerations should be made based on comparisons with appropriate standards of other countries (including Japan' experience).

2) Environmental checklist provides general environmental items to be checked. It may be necessary to add or delete an item taking into account the characteristics of the project and the particular circumstances of the country and locality in which it is located.

Action Plan

Sr. No	Activities to be pursued	Responsibility	Procedure	Time frame (in months)										
				1	2	3	4	5	6	7	8			
1	FORMATION OF PMU													
1.1	Drafting of Memorandum of Association (MoA) and By – Law for PMU	OFD	Setting up small team of senior officers under PCCF and also with the help of external Consultants											
1.2	Formation of Governing Body	OFD	Through Government Notification											
1.3	Approval of Finance Department on the MoA and By – Laws of PMU	OFD will pursue this with Finance Department	Initiating Government File in this regard											
1.4	Formation of HPC	OFD	Through Government Notification											
1.5	Registration of PMU as society	OFD	Submission of MoA & By-Law to Registrar, Registration of Societies											
1.6	Setting up of physical infrastructure for PMU office	OFD	Through standard procurement rules of OFD											
1.7	Deputation of staff to PMU by OFD	OFD	Through Government order internally within OFD											
1.8	Deputation of Government staff from other Department	PMU through OFD	Through Government Order											
1.9	Hiring of Contractual staff at PMU	PMU	Through Advertisement for sourcing from open market											
1.10	Issuance of Government orders for DMU and FMU to function	OFD	Government Orders											
2	DEVELOPMENT OF OPERATIONS MANUAL													
2.1	Drafting of Operations Manual	OFD/PMU	Hiring of external Consultants											
2.2	Validation of Operations Manual	PMU through OFD	Initiating Government File in this regard											
3	ESTABLISHMENT OF DMU & FMU													
3.1	Formation of DAC	PMU	Government Notification											
3.2	Setting up of DMU (physical infrastructure)	PMU	Through standard procurement rules of OFD											
3.3	Relocation of OFD staff at DMU & FMU level													
3.4	Hiring of Contractual staff at DMU	PMU												
3.5	Setting up of FMU (physical infrastructure)	PMU	Through standard procurement rules of OFD											
3.6	Hiring of Contractual staff at FMU level	PMU												

Details of Calculation of FIRR/EIRR

Economic Analysis of Orissa Forestry Sector Development Project

1) General

The purpose of the Project is to conserve the existing dense natural forests with their biodiversity and wildlife from degradation; restore the degraded forest and augment productivity of forests; protect forest and forest land from further degradation; and improve livelihood for and enhance capacity building of the local people who are dependent on forests.

The Project, therefore, consists mainly of 1) Strengthening of executing body, 2) Capacity building of VSSs, 3) Community and tribal development, 4) Biodiversity conservation, 5) Forest management, 6) Farm forestry development, and 7) Infrastructure development.

With this Project, it is expected to have 138,000 ha of Assisted natural regeneration under Joint forest management and 19,000ha of Artificial regeneration in national forest.

The Economic evaluation is based on the SAPROF report of September 2005 for this report. However, some adjustments are done during the appraisal in order to fit to the actual plan and condition of the region.

The financial internal rate of return (FIRR) of the Project is estimated to be 12.0%, which has been calculated using the base cost, physical contingency as investment cost of the Project, and forest products as benefit attributable to the investment. The economic internal rate of return (EIRR) of the Project is estimated to be 15.1%, which has been calculated using the economic cost and economic benefit which is accrued by the Project.

2) Financial internal rate of return

The FIRR of the Project is calculated on the basis of following assumptions.

- (1) Project Life: 40 years after the completion of the project
- (2) Price: All the prices used in the calculation of costs and benefits are based on September 2005.
- (3) Escalation, and Interest During Construction are excluded
- (4) Financial Costs
 - The investment activity is scheduled to be within initial 7 years
 - The investment cost applied for the evaluation is based on the Annual Fund Requirement
 - Maintenance cost as 0.05% of initial investment cost other than consulting service.
- (5) Financial Benefit
 - Financial benefit of the Project consists of the direct revenue accrued from 1) forest development activities, including timber and fuel wood production, 2) non timber forest products or agroforestry production, and income generation activities.
 - The benefit accrued is based on forest produce output pattern and annual investment pattern of the villages.

- Fuel wood is obtained in the specific area defined for fuel wood production. The plantation will be done in three shifts and for each plantation the harvest is expected to have in the year 8th, 14th and 20th and each of the harvest is assumed to have in two years respectively. As a whole the fuel wood production is expected to have in 18 consecutive years.
- For estimation of the benefit of non timber forest products or agroforestry production including minor forest products, it is used amla and tamarind as representing produce.
- For the estimation of the income generation activities, it is used production of oil seed as representing activity. It is estimated to increase the activity reaching 7,338 litres per self help group at the 21st year.

3) Economic Internal Rate of Return

The EIRR of the Project is calculated on the basis of following assumptions

- (1) Project Life: 30 years after the completion of the project
- (2) Economic Costs
 - The investment cost applied for the evaluation is based on the same figures applied to FIRR analysis, excluding escalation, tax and duties.
 - The Project cost excluding consulting services is converted to economic cost by applying conversion factor of 0.628 considering standard conversion factor 0.87, and with an estimation of 65% of the local investment cost as unskilled labor. The consulting services are converted to economic cost by using standard conversion factor.
- (3) Economic Benefit
 - The benefit consists of 1) benefit accrued as forest benefit, 2) non timber forest products / agroforestry production, 3) income generation activities, and 4) soil erosion protection benefit.
 - The first three benefits abovementioned is based on the estimation of FIRR.
 - With the aforestation soil conservation of the area is expected. This is estimated as saving benefit unless otherwise needed some check dams. However the annual savings effect is not ever increasing since the trees will be reduced by thinning and timber production soil may not be covered with canopies and forest dense will be decreased. Therefore, the savings effect is considered this aspect.

4) Other tangible benefits

In this Project, production of fuel wood is taken into accounted. However evaluated area it is only limited to 3,965ha, the area defined as fuel wood plantation and not included other areas where fuel wood could be obtained those area for timber and wood production. In addition, with aforestation forest can gain incremental water storage effect and more water can be captured, therefore people could consume more water and consequently living condition improves. In addition, with the water storage effect, water table rises and consequently agriculture production increases in downstream areas. These could be evaluated as benefits. In this analysis such benefits are not counted to be on the conservative side.

5) Other intangible benefits

Other intangible benefits could include CO2 sequestration effect and disaster prevention effect. CO2 sequestration should be analyzed taking into account reduction by timber fuel wood production. Disaster prevention effect should be analyzed with the avoided disaster cost with the disaster return period. These benefits are considered intangible benefits.

Financial Internal Rate of Return of Orissa Forestry Sector Development

	Cost			Benefit					NET BENEFIT (Rs. Million)
	Initial Investment	O & M	Total Cost	Wood and Timber Production	Agroforestry Production	Fuelwood	Income Generation Activities	Total Benefit	
1	335		335					0	-335
2	700		700				-66.4	-66	-767
3	1,691		1,691				-33.2	-33	-1,724
4	1,553		1,553				-16.6	-17	-1,570
5	1,274		1,274				14.9	15	-1,259
6	393		393				49.7	50	-343
7	247		247	8.5	2.8		87.8	99	-148
1		29	29	21.2	6.9		129.8	158	129
2		29	29	430.0	13.9		176.0	620	591
3		29	29	446.9	25.1	14.5	226.9	713	684
4		29	29	468.1	55.3	14.5	282.8	821	792
5		29	29	101.5	101.6	14.5	313.5	531	502
6		29	29	118.5	153.4	14.5	345.8	632	603
7		29	29	126.9	227.7	14.5	379.7	749	720
9		29	29	126.9	323.3	14.5	415.3	880	851
10		29	29	494.4	487.6	13.1	452.6	1,448	1,419
11		29	29	494.4	609.1	13.1	491.9	1,608	1,579
12		29	29	494.4	690.1	13.1	533.1	1,731	1,702
13		29	29	126.9	690.1	13.1	576.3	1,406	1,377
14		29	29	126.9	690.1	13.1	621.8	1,452	1,423
15		29	29	126.9	690.1	13.1	669.5	1,500	1,471
16		29	29	2607.1	690.1	11.6	669.5	3,978	3,949
17		29	29	2607.1	690.1	11.6	669.5	3,978	3,949
18		29	29	2607.1	690.1	11.6	669.5	3,978	3,949
19		29	29	126.9	690.1	11.6	669.5	1,498	1,469
20		29	29	126.9	690.1	11.6	669.5	1,498	1,469
21		29	29	126.9	690.1	11.6	669.5	1,498	1,469
22		29	29	126.9	690.1		669.5	1,487	1,458
23		29	29	126.9	690.1		669.5	1,487	1,458
24		29	29	126.9	690.1		669.5	1,487	1,458
25		29	29	126.9	690.1		669.5	1,487	1,458
26		29	29	126.9	690.1		669.5	1,487	1,458
27		29	29	126.9	690.1		669.5	1,487	1,458
28		29	29	126.9	690.1		669.5	1,487	1,458
29		29	29	126.9	690.1		669.5	1,487	1,458
30		29	29	126.9	690.1		669.5	1,487	1,458
31		29	29	126.9	690.1		669.5	1,487	1,458
32		29	29	126.9	690.1		669.5	1,487	1,458
33		29	29	126.9	690.1		669.5	1,487	1,458
34		29	29	126.9	690.1		669.5	1,487	1,458
35		29	29	126.9	690.1		669.5	1,487	1,458
36		29	29	3900.8	690.1		669.5	5,260	5,231
37		29	29	3900.8	690.1		669.5	5,260	5,231
38		29	29	3900.8	690.1		669.5	5,260	5,231
39		29	29	126.9	690.1		669.5	1,487	1,458
40		29	29	126.9	690.1		669.5	1,487	1,458
Total	6,193							70,291	

FIRR=	12.0%
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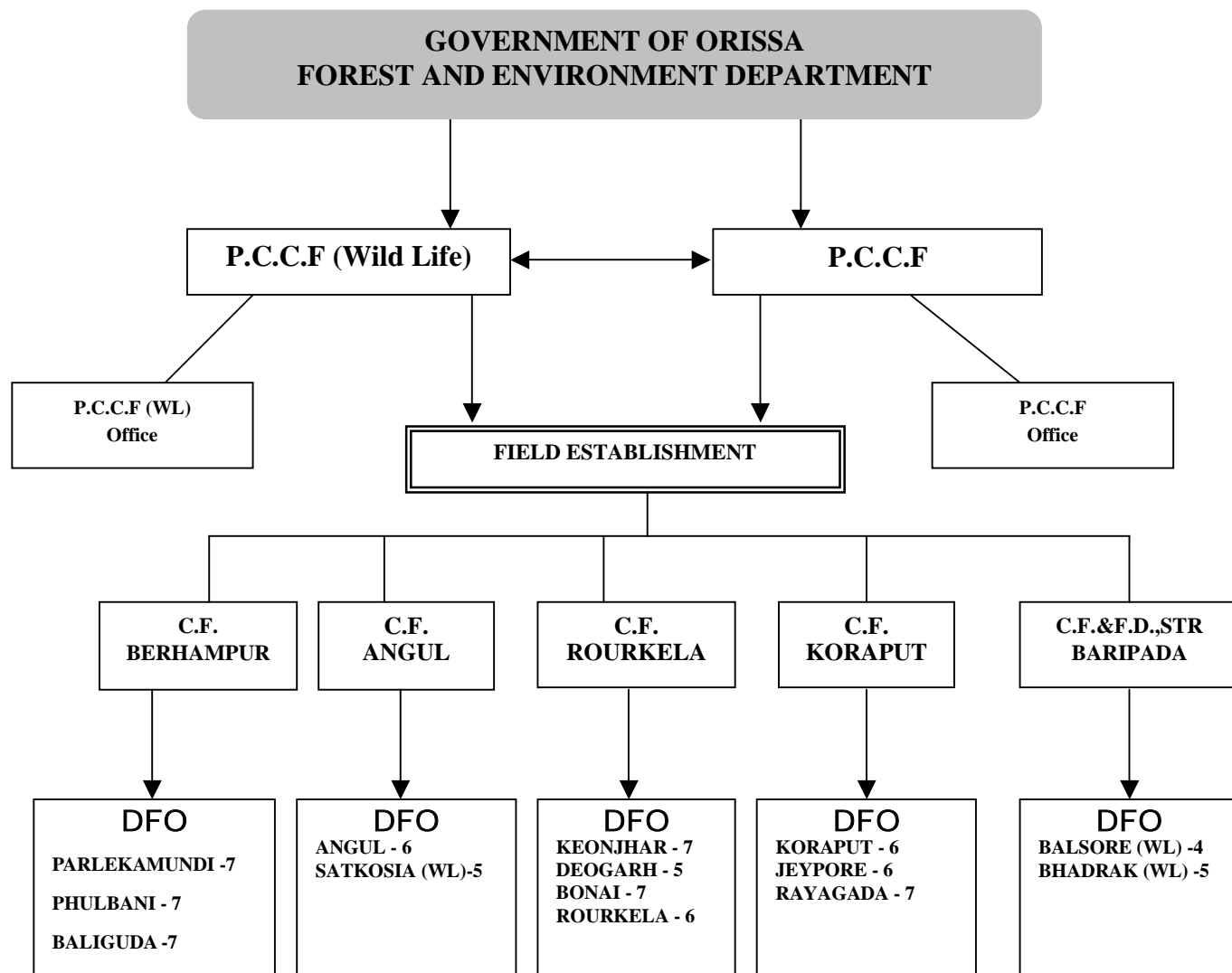
Economic Internal Rate of Return of Orissa Forestry Sector Development

	Cost			Benefit					NET BENEFIT Rs. Million	
	Initial Investment	O & M	Total Cost	Wood and Timber Production	Fuelwood	Agroforestry Production	Income Generation Activities	Soil Erosion		Total Benefit
1	210		210						0	-210
2	435		435				-57.8		-58	-493
3	1,061		1,061				-28.9		-29	-1,090
4	971		971				-14.4		-14	-986
5	786		786				13.0		13	-773
6	229		229				43.2		43	-185
7	137		137	7.4		2.4	76.4	3.0	89	-48
1		19	19	18.4		6.0	113.0	8.9	146	127
2		19	19	374.1		12.1	153.1	14.2	554	535
3		19	19	388.8	63.2	21.9	197.4	21.3	693	674
4		19	19	407.2	63.2	48.1	246.0	28.4	793	774
5		19	19	88.3	63.2	88.4	272.7	35.5	548	529
6		19	19	103.1	63.2	133.5	300.8	42.6	643	624
7		19	19	110.4	63.2	198.1	330.3	49.7	752	733
9		19	19	110.4	63.2	281.3	361.3	56.5	873	854
10		19	19	430.1	56.9	424.2	393.8	59.1	1,364	1,345
11		19	19	430.1	56.9	529.9	427.9	64.8	1,510	1,491
12		19	19	430.1	56.9	600.4	463.8	70.4	1,622	1,603
13		19	19	110.4	56.9	600.4	501.4	75.1	1,344	1,325
14		19	19	110.4	56.9	600.4	540.9	79.2	1,388	1,369
15		19	19	110.4	56.9	600.4	582.4	81.8	1,432	1,413
16		19	19	2268.2	50.6	600.4	582.4	78.2	3,580	3,561
17		19	19	2268.2	50.6	600.4	582.4	79.5	3,581	3,562
18		19	19	2268.2	50.6	600.4	582.4	80.7	3,582	3,563
19		19	19	110.4	50.6	600.4	582.4	81.9	1,426	1,407
20		19	19	110.4	50.6	600.4	582.4	83.2	1,427	1,408
21		19	19	110.4	50.6	600.4	582.4	84.4	1,428	1,409
22		19	19	110.4	0.0	600.4	582.4	85.7	1,379	1,360
23		19	19	110.4	0.0	600.4	582.4	86.9	1,380	1,361
24		19	19	110.4	0.0	600.4	582.4	88.1	1,381	1,362
25		19	19	110.4	0.0	600.4	582.4	89.4	1,383	1,364
26		19	19	110.4	0.0	600.4	582.4	90.6	1,384	1,365
27		19	19	110.4	0.0	600.4	582.4	91.8	1,385	1,366
28		19	19	110.4	0.0	600.4	582.4	93.1	1,386	1,367
29		19	19	110.4	0.0	600.4	582.4	94.3	1,388	1,369
30		19	19	110.4	0.0	600.4	582.4	95.7	1,389	1,370
31		19	19	110.4	0.0	600.4	582.4	96.6	1,390	1,371
32		19	19	110.4	0.0	600.4	582.4	97.2	1,390	1,371
33		19	19	110.4	0.0	600.4	582.4	97.2	1,390	1,371
34		19	19	110.4	0.0	600.4	582.4	97.2	1,390	1,371
35		19	19	110.4	0.0	600.4	582.4	97.2	1,390	1,371
36		19	19	3393.7	0.0	600.4	582.4	90.2	4,667	4,648
37		19	19	3393.7	0.0	600.4	582.4	90.2	4,667	4,648
38		19	19	3393.7	0.0	600.4	582.4	90.2	4,667	4,648
39		19	19	110.4	0.0	600.4	582.4	90.2	1,383	1,364
40		19	19	110.4	0.0	600.4	582.4	90.2	1,383	1,364

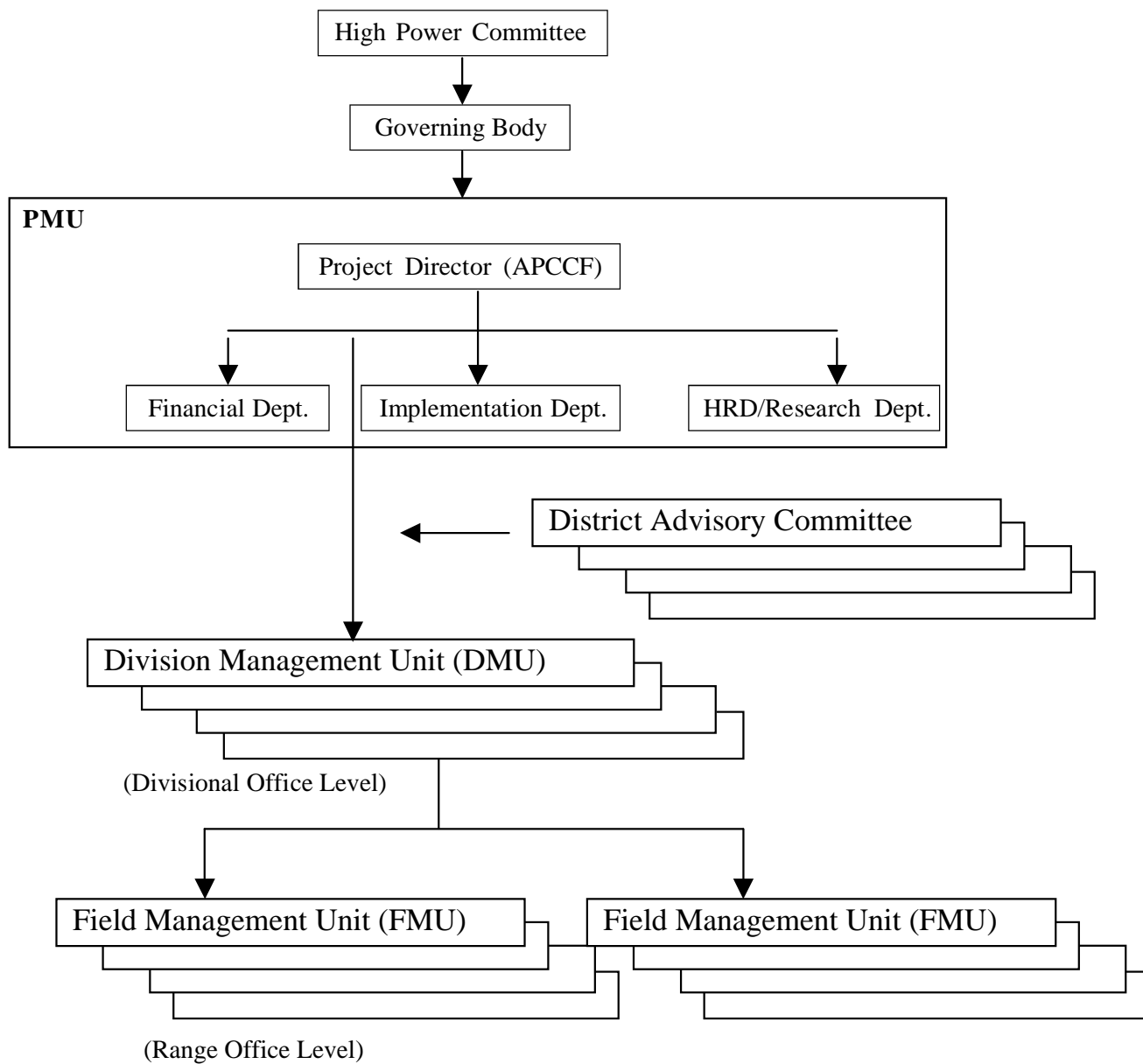
3.828

ERR= 15.1%

Organization Structure of Forest Department



Organizational Structure of the Executing Body (EB)



- a) **High Power Committee (HPC):** HPC will be responsible for facilitating inter-departmental and inter-program coordination for required synergy, convergence and for minimizing duplication of efforts. It will have authority to sanction the Operations Manual. The members of HPC will meet bi-annually or earlier. The composition of HPC will be as below.

Constitution of HPC	
Chairperson	Chief Secretary
Vice-chairman	Additional Chief Secretary cum APC (Agriculture Production Commissioner)
Member	Principal Secretary, DoF&E
Member	Principal Secretary, Finance Department
Member	Principal Secretary, Revenue Department
Member	Principal Secretary, Panchayati Raj Department
Member	Principal Secretary, ST/SC Development Department
Member	PCCF Orissa OFD
Member	Special Secretary, DoF&E
Member	Special Secretary, Planning and Coordination Department
Member Secretary	Project Director, OFSDP

- b) **Governing Body (GB):** Governing Body will be chaired by an Additional Chief Secretary cum Agriculture Production Commissioner (APC). The members of GB will meet quarterly or earlier. The composition of GB will be as below.

Constitution of Governing Body	
Chairperson	Additional Chief Secretary cum APC
Member	Principal Secretary, DoFE
Member	PCCF Orissa OFD
Member	PCCF Wildlife OFD
Member	Special Secretary, DoFE
Member	NGO representative (PD's nominee)
Member Secretary	Project Director, OFSDP

Its roles and responsibilities will be:

- Monitor financial and physical progress
- Monitor disbursement of loan proceeds
- Provide guidance to PMU in preparation of the Operations Manual
- Take initiative for the change of forest policy and rules based on lessons learned from OFSDP

- c) **Project Management Unit (PMU):** PMU will be headed by a Project Director (PD), who will be an Additional Principal Chief Conservator of Forests (APCCF). Under the PD, three Joint Project Directors (JPDs) will be posted to deal with Administration and Finance; Implementation, Monitoring & Evaluation; and HRD and Research. Officers at a rank of CF will be assigned to these positions. Eight Deputy Project Directors (DPDs) will be created to assist the JPDs. Those positions will be filled with: i) seconded personnel from other departments; and ii) reallocation of field DFOs (Deputy CFs).

Constitution of PMU		
Project Director	APCCF, Orissa	
Joint PD	Administration and Finance	CF
Deputy PD	Administration	Deputy CF
Deputy PD	Finance	Deputy CF
Joint PD	Implementation, M&E	CF
Deputy PD	Forest Technology/Management and Planning / M&E	Deputy CF
Deputy PD	Livelihood Improvement & VSS/ Community Development	Deputy CF or equivalent
Joint PD	HRD and Research	CF
Deputy PD	JFM / Socio-economy	Deputy CF or equivalent
Deputy PD	Publicity and Awareness	Deputy CF or equivalent
Deputy PD	Training	Deputy CF or equivalent
Deputy PD	Forest Technology	Deputy CF

The following table illustrates the roles and responsibilities of PMU.

(1) Project Director	
<ul style="list-style-type: none"> • Manage, control and supervise implementation of the OFSDP • Recruit major PMU and DMU staff members sanctioned by HPC 	
(2) Joint PD (Administration and Finance)	
Deputy PD (Administration)	<ul style="list-style-type: none"> • Manage administrative matters relating PMU, DMU and FMU • Draft Operations Manual
Deputy PD (Finance)	<ul style="list-style-type: none"> • Review and update annual disbursement schedule of OFSDP • Consolidate annual budget requirement for implementation of OFSDP • Consolidate annual action plan • Consolidate Statement of Expenditures (SOEs) and prepare necessary document for requesting reimbursement of expenditures • Pursue necessary fund request and transaction for DMU and FMU
(3) Joint PD (Implementation, Monitoring & Evaluation)	
Deputy PD(Forest Technology / Management and Planning/M&E)	<ul style="list-style-type: none"> • Assist updating of Divisional Working Plan • Prepare various project implementation manuals • Review and advice, from technical view point, on the proposed annual work plan submitted by DMUs • Review and consolidate annual work plan submitted by DMUs • Review and consolidate annual budget requirement proposed by DMUs • Review and consolidate annual action plan submitted by DMUs • Feedback on approved annual work plan, annual budget plan and annual action plan to DMU. • Prepare M & E guideline and disseminate the guideline to DMUs and FMUs • Consolidate progress report (physical and financial) submitted by DMUs • Establish GIS, develop data base for project planning and project monitoring, and develop thematic maps required for project planning and monitoring

Deputy PD(Livelihood Imp. & VSS/Com. Dev.)	<ul style="list-style-type: none"> • Scrutinize and assess the financial and technical feasibility of IGA proposed by SHGs through DMUs • Collect and disseminate information of resource based IGAs to DMUs and FMUs • Collect and disseminate information pertaining to marketing for IGA products to DMUs and FMUs • Develop community development guidelines for different types of communities
(4) Joint PD (HRD and Research)	
Deputy PD (Participatory Forest Management/Socio-economy)	<ul style="list-style-type: none"> • Conduct basic study on inherent culture, habitual lifestyle and livelihood for different types of communities depending on their main livelihood on forest resources • Conduct study on possibility of changing source of livelihood from shifting cultivation to alternative livelihood from sociological view point
Deputy PD (Publicity and Awareness)	<ul style="list-style-type: none"> • Conduct awareness building campaign for the project in and around OFSDP area • Produce and deliver regular “project newsletter” • Produce regular progress report for submitting to the HPC and JBIC • Set up and maintain website of OFSDP
Deputy PD (Training)	<ul style="list-style-type: none"> • Organize exposure trips for DMUs, FMUs, and VSSs • Organize necessary trainings, in collaboration with JPD (Implementation, Monitoring & Evaluation), for DMUs, FMUs and VSSs • Conduct post training evaluation
Deputy PD (Forest Technology)	<ul style="list-style-type: none"> • Conduct technical forestry research in the fields of ecology, biodiversity and tree improvement • Develop new technology applicable at field level concerning silviculture • Disseminate the developed technology

d) Division Management Unit (DMU): DMU will be headed by a DMU chief, an ex-officio DFO. There will be a DMU Assistant Chief, to which an ACF will be assigned to assist a DMU Chief. Under the DMU Chief and Assistant Chief, five sections will be set-up, namely; Administration Section, Micro Planning & Forest Tech Section, Infrastructure Development Section, Community Development Section, and IGA Section. Staff positions in these sections will be filled by either FEOs or Deputy Range Officers. Arrangement to transfer some of FEOs from other divisions to the DMUs will be made. If the number of FEOs is insufficient, contractual staff will be employed to fill the remaining vacancies. The composition of DMU will be such as below.

Constitution of DMU	
DMU Chief	DFO (Ex-officio)
DMU Assistant Chief	ACF
Administration Section	FEO or Deputy Range Officer
Micro Planning & Forest Tech. Section	FEO or Deputy Range Officer or equivalent
Infrastructure Development Section	FEO or Deputy Range Officer or equivalent
Community Development Section	FEO or Deputy Range Officer or equivalent
IGA Section	FEO or Deputy Range Officer or equivalent
Roles and Responsibilities of DM	
DMU Chief	<ul style="list-style-type: none"> • Manage, control and supervise implementation of the OFSDP at division level • Facilitate reporting, information flow, financial transactions regarding OFSDP • Provide technical assistances to FMUs
DMU Assistant Chief	<ul style="list-style-type: none"> • Assist DMU Chief to manage, control and supervise implementation of the OFSDP at division level

Administration Section	<ul style="list-style-type: none"> • Manage administrative matters relating to DMU • Assist and guide FMUs in administration and fund management • Consolidate accounting documents submitted by FMUs • Prepare financial and physical progress report
Micro Planning & Forest Tech. Section	<ul style="list-style-type: none"> • Assist and guide FMUs in forming VSS/SHG • Assist and guide FMUs in capacity building of VSS/SHG • Consolidate baseline survey data • Provide technical assistance in PRA • Review Micro Plans compiled at FMUs • Consolidate detailed annual work plan for all the VSSs concerned • Assist and guide FMUs in initiating participatory monitoring
Infrastructure Development Section	<ul style="list-style-type: none"> • Provide technical assistance on infrastructure development
Community Development Section	<ul style="list-style-type: none"> • Guide and assist VSSs in implementing livelihood development
IGA Section	<ul style="list-style-type: none"> • Prepare IGA plan

- e) **Field Management Unit (FMU):** FUM is headed by a FMU chief, an ex-officio Range Officer, under whom the administration section and micro planning & forest tech section will be set up. While one VFW (village forest worker) will be assigned to the administration section, the number of staff members in the micro planning & forest section will vary approximately from one to three depending on the numbers of VSSs to be covered by each FMU. These staff members will also be filled by VFWs, some of whom will be transferred from other divisions to the divisions under the Project.

Constitution of FMU	
FMU Chief	Range Officer (Ex-Officio)
Administration Section	VFW
Micro Planning & Forest Tech Section	VFW or equivalent
FMU Chief	<ul style="list-style-type: none"> • Manage, control and supervise implementation of the OFSDP at range level • Facilitate information flow and provide technical assistances to VSSs
Administration Section	<ul style="list-style-type: none"> • Manage administrative matters relating to FMU • Assist and guide VSSs in administration and account management • Consolidate and submit accounting document • Prepare and submit VSS-wise progress report
Micro Planning & Forest Tech Section	<ul style="list-style-type: none"> • Conduct baseline survey • Assist community in forming VSS/SHG • Facilitate PRA • Assist VSS in formulating Micro Plan and compile the Micro Plan • Evolve detailed annual work plan and cost estimate for each Micro Plan • Initiate participatory monitoring. • Capacity building of VSS/SHG.

Technical assistances for EPAs, IGAs, and livelihood improvement will be outsourced to local NGOs.

Selection Criteria of Priority Village for JFM

Minimum Requirements			
	<ul style="list-style-type: none"> - The village has not participated in NAP (FDA), RLTA, OTELP, WORP, National Food for Work Programme, compensatory afforestation or other major special projects.-The village is adjacent to forestland, and the forestland is degraded. - Majority of village household are dependent on forest resources. - The village is tribal dominant. - The village is a revenue village (not an illegal settlement) - There is no or marginal shifting cultivation areas within the forestlands. - There is no problems regarding law and order in the village 		
	Prioritized Parameter	Rating	
		Point	Awarded
1	Forest Degradation		
	Village is located at a severely degraded micro watershed identified through the vegetation / present land use map prepared under OFSDP.	10	
	Village is located at a fairly degraded micro watershed.	5	
	Only a small portion of village is located at a degraded micro watershed.	1	
2	Size of Forestland		
	The total size of forestland on which people are dependent is more than 150 ha	5	
	The total size of forestland is more than 80 ha but less than 150 ha	3	
	The total size of forestland is less than 80 ha	1	
3	Slope Category		
	More than 60% of forestland adjacent to the village is classified as steep (more than 30% of slope)	5	
	More than 20% but less than 60% of forestland is classified as steep	3	
	Less than 20% of forestland is classified as steep	1	
4	Existence of Headwater		
	Within or adjacent to the forestland, there are more than 3 headwaters that community people use for their daily lives.	4	
	There is a headwater that community people use.	2	
	There is not headwater that community people use.	0	
5	Shortage of Water		
	The village experience more than 6 months of water scares period in a normal year.	5	
	The village experience more than 4 months of water scares period.	3	
	The village experience less than 4 months of water scares period.	1	
6	Forest Product		
	The village produces more than 15 kinds of unprocessed and processed forest products.	4	
	The village produces more than 10 but less than 15 kinds of forest products.	2	
	The village produces less than 10 kinds of forest products.	0	
7	VSS		
	There is already VSS formed in the village	3	
	There is no VSS yet in the village	1	
8	Conflict		
	There is no boundary conflict with neighboring villages or other socio-political problems	4	
	There is certain conflict and socio-political problems	1	
	Total	Max 40	

Note: The above criteria should be finalized at the beginning of the Project by PMU, DMU and the Project consultant. The ratings of villages then will be compiled, and ranking of villages would be prepared based on the rating. Based on the ranking, the finalizing project sites would be completed as illustrated below.

Process and Timing of Micro Plan Preparation

	Item	Period	Duration
1	Preparation of Guidelines for VSS Management & Micro plan and training guideline for TOT	July to September 2006	6 months
2	Preparation of Operational Manual	July to September 2006	6 months
3	Technical survey, willingness of communities	July to December 2006	2-3 days per VSS for the survey
4	Training of Trainers (FMU, NGOs, animators)	November 2006 to March 2007	2 weeks per one training (initial training including micro plan preparation)
5	Selection of VSS	August 2006 to January 2007	
6	Base line survey	October 2006 to March 2007	2 months for each VSS
7	Training of VSS selected for 1 st year intervention through plantation activity	December 2006 to May 2007	2 weeks per one training (initial training including micro plan preparation)
8	Preparation of nursery (by OFS)	December 2006 to November 2007	
9	Micro Plan preparation	Janary to November 2007	4-6 months
10	Preparatory works for plantations & EPA	December 2007 to July 2008	8 months
11	Plantation work	July to August 2008	2 months

Guideline for Self-help Group (SHG) under the Orissa Forest Sector Development Project (Draft)

1. Purpose of SHGs

Improving those vulnerable people's lives is the key to achieve sustainable forest resource management. Effectiveness of Self-help Group (SHG) will generate alternate sources of income and thereby reduce poverty and unemployment. This will in turn reduce pressure on forest. More income to members of the *Vana Sanrakshan Samiti* (VSS) will rejuvenate the enthusiasm within the VSS. Therefore, the programme aims at achieving the followings through SHGs activities:

- Improvement of household economy of the poor forest dependents
- Providing alternative sources of income
- To enhance the participation of women and socially weaker group into the VSS decision making and its activities.

SHGs are a means to providing their members with economic, social and political empowerment and means to ensure equity in the Joint Forest Management (JFM). The prime function of an SHG is to manage thrift and credit and in the process of managing credit, develop abilities to involve in larger development interventions.

2. Role of SHGs in OFSDP

SHG members should play a pivotal role in the JFM by being active partner of VSS and sounding board for the concerns and voice of the vulnerable group in the project. The SHG members should attend the general body meeting regularly and participate in forest protection activities as well as community development activities.

3. Membership of SHGs and eligibility

The beneficiaries of income generation programme under the Orissa Forest Sector Development Project (OFSDP) are to be selected among the member of SHGs under the VSS. SHGs are small, informal group of 10 to 15 members. Estimate numbers of SHGs formed during 7 years of the project period are 4,500.

Eligibility of SHG membership is as follows:

- The person should be a member of VSS.
- The person should be below poverty line and the annual income to the household should be less than Rs.11,000 /- per annum as per the guidelines of Government of India.
- The person should belong to age group of 18 to 60 years. Person above 60 years can be a member if she/he is responsible for the family income.
- The SHG members should belong to same village/community
- The SHG members should be of similar economic homogeneity and have common interests

- The SHG members should have self interest, spirit of unity and enterprise
- Women, primary forest dependents, persons belong to scheduled caste, scheduled tribe, widows, destitute, physically handicapped persons, landless and marginal farmers should be given preference invariably

Membership to one SHG is limited to one person per family though other family members can take part in other SHGs. Artisans and men also can form SHGs if they fulfill above criteria, and SHGs can be of women's, men's, or mixed.

SHGs formed under other schemes and agencies in the project area can be recognized by VSS if such SHGs fulfill the above eligibility. In case there are several SHGs in the project area, VSS shall carefully analyze the followings before selecting SHGs.

- SHG having strong commitment on its activities and JFM are prioritized
- SHG organized by vulnerable members are prioritized
- SHG with stable financial performance are prioritized
- SHG with potential Income Generation Activities (IGA) are prioritized
- SHG having access to other financial resources are less prioritized.

4. Implementing Process

SHG formation

- Identify vulnerable families in the village during Participatory Rural Appraisal (PRA) and Rapid Rural Appraisal (RRA) exercise, baseline survey, and micro plan preparation
- VSS identify vulnerable families and groups who fulfill the SHG criteria within the community
- VSS, supporting NGO, and forest official spread the information about SHG in the VSS village, and encourage vulnerable families and groups to form/to take membership in SHG under VSS
- Hold formal or informal meeting with those families and groups that are eligible to form SHGs and explain and sensitize them about the purpose to form group
- NGO shall support SHG formation process in coordination with VSS and Forest and Environment Department of Orissa (OFD).

Support SHGs operations and activities

- Once a group of people agree to form a SHG, support NGO shall train and facilitate them to conduct monthly/weekly meetings regularly at a fixed time and place and maintain basic documents like the meeting minutes and passbook, cashbook. In case of SHGs formed by other agencies also shall be trained according to their experiences.
- NGO shall help the group to start regular savings, to decide the amount to be saved and the frequency of saving. SHG shall conduct regular fixed saving, meeting, book keeping, and credit rotation in the later stage.

- Each SHG should decide rule and regulation of the group including interest rate, repayment period, and penalty for default.
- SHG shall open a savings bank account in the name of the SHG. NGO shall support and train them for the maintenance.
- SHG member can borrow money from the revolving fund of VSS for income generation activities and emergency need and make repayment. SHG have to exchange agreement document prior to receiving loan from VSS.
- SHG shall follow rules and regulations decided by VSS in terms of receiving loan from VSS fund.
- SHG shall nominate beneficiary of the revolving fund among the members. VSS shall prepare a panel list of applicants and approve the beneficiary group and loan amount. The VSS shall also prepare a waiting list of eligible applicants in the event of shortage of funds at its disposal.
- Performance of SHG should be examined by VSS and Field Management Unit (FMU) based on the IGA guideline which is to be produced under OFSDP. In initial stage, performance including saving and attitude of the members shall be examined during and after 6 months. If the performance of the group is satisfactory, the SHG can receive revolving fund of VSS. Performance including loan repayment and income generation activities of the members shall be examined after they use revolving fund and the result shall be taken into consideration at the time of next borrowing.
- The money of the revolving fund of VSS is provided to the borrower only through SHG.

Training

- Members of SHG shall participate in the training programme for their capacity building in management of the group as well as skill training for income generating activities.
- NGO shall conduct skill training for SHGs to enhance income generation activities under the project. FMU shall seek linkage between Women and Child Development Department and *Mission Shakti* for further capacity building and income generation activities of SHGs.
- Training for supporting NGOs and FUM field staffs will be conducted during in the early stage of the project period to develop supporting and training skills.

Linkage building

- Supporting NGOs, FUM field staffs and District Management Unit (DMU) shall try to establish linkages with banks, other institutions and government resources and SHGs.
- Supporting NGOs, FUM field staffs and DMU shall try to find a linkage between SHG and commercial sector for the marketing collaboration.
- Supporting NGOs, FUM field staffs and DMU and OFD shall support SHGs to form federation to strengthen their financial foundation and IGA activities.

5. Rules

- SHG members should meet weekly and ensure at least 80 percent attendances in the meeting and regular saving and maintain required books.
- SHG are requested provide all the books and registers whenever they are requested by VSS and OFD.
- In case of default by SHG member penalty shall be decided by the SHG in advance.
- In case of default by SHG member, the SHG as a group will make repayment to the VSS.
- In case of default of SHG as a group, the penalty shall be decided by the management committee of the VSS in advance.

6. Monitoring

Every SHG should maintain following books and registers:

- Attendance register
- Minutes book
- Saving ledger
- Loan ledger
- Cash book
- General ledger
- Individual passbook
- Bank passbook
- Cheque book

With the support of FMU field officers, NGO appointed to FMU shall monitor the day-to-day activities of SHG, including book keeping, saving, beneficiaries of the credit, credit given, repayment made, item purchased/spend by the borrower, meeting held, and participation in the meeting. From time to time DMU and appointed consultants shall visit SHGs, meet beneficiaries, and examine the impacts by the income generation activities.

Training Programme

Attachment - 16

Trainee	Trainer	Content	Time	No of trainees	Duration	Place
Orientation Workshop						
Line department, OFD staff,	PMU	Orientation workshop to Inform stakeholders about project scope and objective	June, 2006	100	1 day	Bhubaneswar Circle level
Training of Trainers prior to Microplan						
Fr/VFW/FG, Animator, RO/Dy RO/FEO, NGO	Training Institute	Introduction to JFM, PRA, Micro Plan, Facilitation	Nov. 2006 to Mar. 2007	800	3 days	DMU level
Micro Plan preparatory training						
VSS president & Executive body, Other VSS members	Fr/VFW/FG, Animator, RO/Dy RO/FEO, NGO	Introduction to JFM and OFSDP, Micro Plan, Concept of village development	Dec. 2006 to 2009	1,500	2 days	FMU level
Technical and managerial Training						
CF/CCF	Training Agency, Experts	Project Management and Impact evaluation, Community development, Intersectoral linkage	2007-2008	20	1 Week	XIM Bhubaneswar National Institute
ACF/DCF	Training Agency, Trainers	Community development, Microplan, Microfinance, Project management	2007-2008	42	1 Week	SFTRI Bhubaneswar National level institutes
RO/Dy RO/FEO	Training Agency, Trainer	Microplan, Soil water conservation, Livelihood development, Microfinance	2007-2008	100	2 weeks	SFTRI Bhubaneswar FRC Angul
Fr/VFW/FG	Training Agency, Trainer	Community organization, Microplan, Soil water conservation, Livelihood development, Communication	2007-2008	230	2 weeks	FRC Angul and other places
VSS president & Executive body members	Facilitator, RO, FEO, NGO	VSS management, SHG management, Soil and water management, Conflict management, Participatory Action	2007-2009	11,375	1 week	FMU level
Other VSS members	Facilitator, RO, FEO, NGO	JFM, SHG and rural finance, Village development and schemes	2007-2009	11,375	1 week	FMU level
SHG members	WCD, OFD, NGO	Thrift, credit and Accounting procedure, Microenterprise, Marketing	2007-2010	13,650	2 week	DMU, FMU level
Animators	NGO, RO, FEO,	JFM/VSS, Livelihood, Village development, Development scheme, Communication, Conflict resolution	2007-2009	760	2 week	DMU, FMU level
NGOs	OFD staff & Trainers	IGA, Microfinance, Livelihood	2007-2009	150	1 week	SFTRI Bhubaneswar
Refresher courses						
ACF/DCF/CF	OFD staff & NGO	Training need as per midterm evaluation	2010	42	1 week	SFTRI Bhubaneswar
RO/Dy RO/FEO	OFD staff & NGO			100	1 week	Circle level
Fr/VFW/FG	OFD staff & NGO			230	1 week	Division level
VSS/SHG/Animators	OFD staff & NGO			25,000	1 week	Range level
NGOs	OFD staff & NGO			200	1 week	State level

Details of District Advisory Committee (DAC)

The DAC will function as an inter-agency and multi-sector coordination body for the Project at the local level. The members of DAC will meet bi-monthly.

Constitution of District Advisory Committee	
Chairperson	District Collector
Member	District Rural Development Agency
Member	PD, Watershed / Soil Conservation Officer
Member	Agriculture Dept.
Member	ITDA (Integrated Tribal Development Agency)
Member	Zila Parishad (Chairman's nominee)
Member	Representative VSS (1 VSS for each division)
Member	GM, District Industry Center
Member	GM, a lead local bank
Member	NGO (PD's nominee)
Member	DFO (other than member secretary, if any)
Member Secretary	DFO (PD's nominee)

Zilla Parishad (District Council) will be nominated by the chairperson as a member of the DAC to coordinate between the Project and local government.

LOCATION MAP OF PROJECT AREA

