

A Value Chain on Industrial Agroforestry in Tamil Nadu

Environmental and Social Safeguards Management in NAIP

1. BASIC INFORMATION

A. Project Data

- **Project Statistics**

Component Code : 2

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Consortium Partners : **INSTITUTIONAL PARTNERS**

1. Institute of Forest Genetics and Tree Breeding (ICFRE),
Coimbatore, Tamil Nadu

INDUSTRIAL PARTNERS

2. M/s. Tamil Nadu Newsprints and Papers Limited,
Karur, Tamil Nadu

3. M/s. Seshasayee Paper Boards Ltd, Erode, Tamil Nadu

4. M/s. Vasan Match Works, Gudiyatham, Tamil Nadu

2. Date of Start : 2.09. 2008.

3. Planned Duration : 4 Years 1 Month

4. Project Cost : Rs. 307.905 Lakhs

5. Project Objectives

1. Establishment of lucrative industrial wood plantation with improved short rotation clones/genotypes through contract farming.
2. Wood technological characterization and development of suitable alternate genetic resources for pulp and match wood.

3. Optimizing precision silvicultural technologies for productivity improvement of industrial wood species.
4. Development and concurrent dissemination of suitable post harvest technologies and value addition of plantation and industrial residues through multi stakeholder partnership.
5. Augmenting the existing supply chain system and facilitating marketing of industrial wood through market outlook information system.

6. Brief project description

The project aims at promoting industrial agroforestry through public private partnership involving four levels of stakeholders' viz., Institute, Industries, Growers and Financial institutes. Promotion of tree husbandry in the farmlands is a very big task faced by wood based industries in the state. The reason behind this is due to lack of superior genetic resources, poor adoption of precision and site specific silviculture techniques, imperfect linkage between industries and growers and lack of assured price information system. Against this back drop, the current project is designed to augment the production consumption system through public-private partnership. The basic idea behind the proposal is to transfer the superior genetic resources to the farmlands through industrial linkages. The industries will have a strong buy back agreement system with the farmer cluster groups to be formed through this project with an assured minimum support price. Hence, the current project has a system of promoting farmer and industrial linked industrial wood plantation establishment through cluster approach.

The superior genetic resources of casuarinas and eucalyptus (pulpwood) and *Ailanthus excelsa* (matchwood) identified by the consortia will be demonstrated in 10 clusters representing five districts. Through the project, intensive silvicultural management will be demonstrated in 200 ha representing 10 taluks @ 20 ha per cluster. Simultaneous expansion of industrial wood plantation will be done through industries in association with financial institutions. Hence, the current project has a vision of enhancing industrial tree cover which will ultimately convert unutilized farmlands into productive tree cover. This in turn will generate adequate employment and income generation activities.

Traditionally, trees are harvested manually which results in 20-30 % of logging waste during the process of extraction. After extraction and in the process of conversion also accumulation of huge industrial residues was evident. These residues neither used nor recycled in the field. The current project will help to address these issues by introducing mechanized harvesting to reduce the logging impact and to improve the conversion efficiency. Above all, the human drudgery will be reduced besides augmenting the managerial skill of the local labourers to make them competitive towards the development process. Hence, the project will make the local unskilled labour force into skilled labour force through capacity building in production, processing and harvesting operation. Similarly, value addition of the plantation and industrial residues by converting into briquettes will help to use the residues effectively to biomass energy needs of industries.

The current project aims to augment the supply chain through tripartite and quadripartite models and to develop entrepreneurship skill among the clusters of farmers with market driven approaches. Market and price information system is yet another bottleneck faced by the growers. As on now, there is no institutional arrangements to deliver the market information system for major industrial wood raw materials. The current project will intervene through systematic research and development efforts thereby helping to develop institutional arrangements and needed infrastructure to disseminate the market and price outlook information system.

The results from the current project will help to establish farmers linked industrial wood plantation through contract farming system with assured minimum support price. This will create self reliance in industrial wood raw material requirement besides creating massive employment and sustainable income generation activities. The project also creates institutional arrangement for sustainability of the supply chain system after the project period.

7. Environmental Category:

a) Social issues

b) Environmental issues

8. Safeguard Policies Triggered (World Bank Policies)

The current project does not involve any of the safe guard policies of World Bank mentioned below:

A. Safeguard Policies Triggered (World Bank Policies)

	Yes	No
Environmental Assessment (OP/BP 4.01)	[X]	[]
Natural Habitats (OP/BP 4.04)	[]	[]
Pest Management (OP 4.09)	[]	[]
Cultural Property (draft OP 4.11-OPN 11.03 -)	[]	[]
Involuntary Resettlement (OP/BP 4.12)	[]	[]
Indigenous Peoples (OD 4.20)	[]	[]
Forests (OP/BP 4.36)	[]	[]
Safety of Dams (OP/BP 4.37)	[]	[]
Projects in Disputed Areas (OP/BP 7.60)	[]	[]
Projects on International Waterways (OP/BP 7.50)	[]	[]

B. Risk related Issues

a) Identification of cluster groups

As there is an aggressive demand among the farming community towards industrial agroforestry, the problem of finding growers for promotion of industrial agroforestry will not arise.

b) Breach of agreement by growers

Very negligible number of growers entered in agreement may breach the rule. The industries proposed in the project have already developed good rapport with growers and won the confidence. In addition, the plantation will be promoted through establishing cluster group approach wherein the role of leading farmer of the locality can be very well used to mediate the issues. Being this project aims for coverage of larger area, a deviation up to 5 per cent be acceptable which will not detract the merit of the project performance.

9. Impact Assessment:

The project has necessary provision for impact assessment both at pre and post project level. Necessary impact assessment is indicated below:

10. Potential indirect and / or long-term Impacts due to anticipated future activities in the project areas (Assessment of conflict / complimentarity with the likely anticipated activities current as well as proposed in the next five years)

The results from the current project will help to establish farmers linked industrial wood plantation through contract farming system with assured minimum support price. This will create self reliance in industrial wood raw material requirement besides creating massive employment and sustainable income generation activities. The project also creates institutional arrangement for sustainability of the supply chain system after the project period. Indirectly, the project will help to mitigate the global environment in general and the regional environment in particular by acting as a carbon sinks. This project in general help to increase the tree cover outside the forest area thereby help to achieve the national goal and protects the native forest.

11. Identify the key stakeholders and describe mechanisms for consultation/disclosure so far done (widely sharing the documents on the subproject, other mechanisms to get a buy-in with the stakeholders including the farmers)

Consortium partners

PUBLIC INSTITUTIONAL PARTNERS

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INDUSTRIAL PARTNERS

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Stakeholders of the project are already in close collaboration with lead institute for promotion of industrial agroforestry. The lead institute has already collaborative research projects with industries and found successful implementation. On approval of the concept note of the current project, the stakeholders are contacted frequently to develop the project through meetings at various levels as detailed below.

12. Chronology of meetings/ activities held in connections with preparation of the concept note & full proposal

S. No.	Date	Nature of meeting	Participants	Remarks
1.	20.11.07	Communication from the Office of the Vice Chancellor on Concept Note Approval		
2.	22.11.07	NAIP Discussion with Director of Research at the main campus.	Director of Research, Dean Forestry & PI	Gathered preliminary details for full proposal
3.	23.11.07	Discussion with Associated Scientists under the chairmanship of Dean (Forestry)	All scientists of FCRI	Discussed the role of various scientists to be involved
4.	24.11.07	Discussion on preparatory steps for full proposal under the chairmanship of the Vice Chancellor	Vice Chancellor Director of Research Dean Forestry, TNAU PIs of approved NAIP concepts	Vice Chancellor appraised the guidelines
5.	28.11.07	Attended the Pre stakeholders' Workshop at NAARM, Hyderabad	All PIs of component 2 & 3	National Coordinators of NAIP appraised the full proposal preparation and conduct of stakeholders workshop
6.	30.11.07	NAIP Appraisal meeting at FC&RI, Mettupalayam	Dean Forestry & All associated scientists of FC&RI	Dean (Forestry) appraised the scientists on proceedings of the stakeholders workshop held at NAARM
7.	01.12.07	Discussion meeting among associated scientists to develop full proposal	PI and associated scientists	Fine tuned the role of industrial partners and identified new NGOs & KVKs
8.	06.12.07 & 07.12.07	Interactive meeting with Consortium partners	Mr. V. Ravindran & Mr.Thangavelu,NGO and Mr. M. Shanmugam, SPB and Mr. V. V. Rajan, M/s.Vasan Match Works, Mr. R. Seenivasan, TNPL	Discussed the role and activities of the participated partners
9.	11.12.07	Appraisal discussion for the stakeholders meeting under the chairmanship of the Vice Chancellor	Director of Research, Dean (Forestry), Dr. K.T. Parthiban, CPI and Dr. N. Natarajan,	VC Apprised the progress of Full proposal preparation and guided for the stakeholders meeting
10.	12.12.07	Discussion meeting with Insurance Company	Director of Research, Dr. K.T. Parthiban, CPI and Dr. N. Natarajan	Discussed the modalities for the crop insurance
11.	14.12.07	Stakeholders' Meeting	Representatives from KFRI, IFGTB, M/s. TNPL, M/s.SPB, M/s. Vasan Matches, KVK, NGO, SBI and	<ul style="list-style-type: none"> • Discussed the willingness & responsibilities of each consortium partners • Budget estimate for each partner based on the

			New India Insurance	activity has been prepared.
12.	16.12.07	Preliminary discussion meeting on inter-national collaboration with the University of Saskatchewan (U of S), Canada	The Registrar, TNAU, Mr. Shankar, International Facilitator of U of S	Mr. Shankar apprised the facilities and capabilities of U of S for collaboration
13.	17.12.07	Video conferencing with faculty U of S and Saskatchewan Research Council (SRC)	Registrar, Dean (Forestry), P & H (Breeding), Research Coordinator, AP(Eco)	Dean (Forestry) appraised the institutional background & CPI narrated the objectives, major activities proposed.
14.	24.12.07	Vice-Chancellor review on NAIP and presentation by CPI	Vice- Chancellor, TNAU and all faculty member	The Vice-Chancellor made comments for fine tuning of the proposal on line with NAIP objectives
15.	28.12.07	NAIP meeting , New Delhi	DG and NAIP directors and members of PMC, RPC & TAG.	Appraised and facilitated the full project proposal preparation.
16.	04.01.08	Full project prepared and the copy was communicated to NAIP Helpdesk and received comments.		
17.	06.01.08	The core project proposal was again sent to NAIP Helpdesk as per the requested format and also to all partners for comments.		
18.	10.01.08	Received comments from all and the full proposal was fine tuned.		
19.	11.01.08	Full proposal approved by the University and all partners signed the proposal.		
20.	12.01.08	Sent to NAIP – PIU through e-mail and 10 hard copies through courier service.		
21.	11.03.08	Presented before TAG		
22.	20.03.08	Revised proposal sent as per TAG comments		
23.	08.04.08	Presented the revised proposal before TAG		
24.	05-05-08 to 07-05-08	Presented the revised proposal before RPC and the proposal was approved. Cost estimates were revised as suggested by Cost Committee		
25.	12-05-08	Final revised proposal along with SEMF document sent to NC for PMC		

12. Measures to address the issue

The concept of Industrial Agroforestry and the issues related to promotion popularization and environmental and social management safeguard system will be addressed through multi stake holder partnership. The issue of long rotation coupled with uncertain market and trade will be resolved through capacity building on the adoption of short rotation clones and assured buy back through industrial participation.

This besides the unutilized pruning and plantation waste will be converted into utilizable energy biomass which will take care of safe environment and assured social safe guard. The project in general will address the issue of clean development mechanism which will not only mitigate the local environment but also the global climate change.

13. Consultation / disclosures in future (Local disclosure through mechanisms such as launch workshop, interfaces during the implementation stage of the sub-project for sharing the results of the and soliciting the feedback).

The issues related to successful implementation of Industrial Agroforestry project will be resolved through mutual consultation during launch workshop, annual workshop, CMU, CIC and CAC meetings. The electronic facilities particularly email and internet available will be properly utilized to disseminate the information and to solve issues if any which will help to share the information for successful implementation. The project has been designed in a consortium mode involving various levels of stake holders and the consultation will be done transparently at decentralized level viz., Institute, Industry and Farmers level which thereby create inbuilt mechanism and act as a interface to resolve the issues if any. Above all, the consultation and disclosures will be done as per NAIP guidelines as suggested by PIU NAIP time to time. The project findings and the new developments will be disclosed or transferred from time to time and necessary feedback are impact will be assessed for improvement and effective implementation. The following activities are planned for successful consultation for effective implementation.

1. Capacity building to farmers and other stake holders through decentralized training and field visits.
2. Demonstration of 200 Ha industrial wood plantations across 10 clusters distributed in 5 districts.
3. Establishment of linkages among partners and promotion of tree based contract farming system.
4. Dissemination of information through print and electronic media for effective transfer of technology.
5. Integrating line departments and linking them through secondary systems for sustainable utilization of residues.
6. Promotion and Popularization of value addition and by-product utilization for effective conversion to create sustainable energy use which will play significant role at rural level.
7. The concept of environmental amelioration and clean development mechanism will be effectively transferred among various user agencies in order to inculcate the art of tree husbandry towards protection and productivity improvement.

Consortium PI

National Coordinator

National Director

Annexure I: Environmental safeguard: activities, issues, impact and mitigation measures

Activities	Issues	Anticipated level of impacts		Mitigation measures (Negative impact)
		Positive	Negative	
a) Promotion of pulp and match wood	1. Availability of superior genetic resources with short rotation clones/ genotypes	4	-	Does not arise
	2. Availability of alternate quality raw wood materials to industries	4	-	Does not arise
	3. Tree cover improvement	5	-	Does not arise
	4. Crop diversification	4	-	Does not arise
	5. Carbon Sequestration & CDM	4	-	Does not arise
	6. Environmental impact	4	-	Does not arise
	7. Air quality	5	-	Does not arise
b) Post harvest management	Shelf life and storage	-	2	Developing suitable eco friendly post harvest measures to improve the shelf life and storage
c) Value addition	Conversion of plantation and industrial residues for energy generation (Briquettes)	5	-	

Annexure II: Social safeguard: activities, issues, impact and mitigation measures

Activities	Issues	Anticipated level of impacts		Mitigation measures (Negative impact)
		Positive	Negative	
Supply chain	Quad-partite model of contract farming to alleviate un-desirable middlemen and contractors interruption	4	-	Does not arise
	Provision of credit facilities to small farmers	3	-	Does not arise
Market & Trade	Availability of reasonable assured price to farmers	5	-	Does not arise
	Mechanised Felling & Transportation	4	-	Does not arise
Income and employment generation	Adequate income and employment through plantation, processing and value addition	4	-	Does not arise
	Tree based entrepreneurial skill	3	-	Does not arise
Intellectual Property Rights	Protection of breeders and farmers right	4	-	Does not arise