Public Summary of Management Plan:

A) Objective of Project: JK Paper Ltd Unit: CPM is implementing the FSC-FM Project in different districts of Gujarat, Maharashtra and Madhya Pradesh namely Tapi, Surat, Navsari, Bharuch, Vadodara, Narmada, Aravalli, Chottaudeipur, Panchmahal, Valsad, Nandurbar, Dhulia, Jalgaon, Aurangabad, Khargoan and Barwani.

The objectives are listed as below:

- To promote plantation which can provide multiple benefits to the farmers in respect of pulpwood, firewood, along with environmental benefits.
- To reforest unutilized lands to control soil and water erosion and bring them to productive use.
- To build capacity of the various stakeholders to benefit from global mechanism of FSC Certification.

B) A description of the forest :

The Project area is consisting of around 841 old FMUs and 1800 new FMUs spreading across Twelve districts of Gujarat, Seven districts of Maharashtra and four districts Madhya Pradesh of till 2022. Forest Management areas are located in Western Gujarat, Northern part of Maharashtra and Southwest of Madhya Pradesh. It is spread out over 7879 hectares. The FM consists of Eucalyptus and Subabul which are being managed under the Agro forestry and Farm forestry model. All the land parcels are belonging to individuals who have ownership rights and have planted Eucalyptus and Leucaena on their lands and maintaining them. All of the FM area belongs to farmers and have no Government involvement. Quite a few of these land owners have diversified crops on their lands and grow timber as an alternate crop apart from such as Sugarcane, Banana, Cotton; The soil qualifies as Black cotton soil and irrigation is done by water canals from two dams namely Ukai dam (Tapi river) and Sardar Sarovar dam (Narmada river) in Gujarat, Akkalpada, Aner and Yaval dam in Maharashtra on Tapi river and Adampura Dam in MP. The areas under Farm management is not drought or flood prone, and all land under FM is used for plantation activity. Farm Management Districts are located in Southern Gujarat and Maharashtra which receives heavy rainfall during the monsoons with high humidity which makes the air feel hotter. There is relief when the monsoon season starts (around mid June). The day temperatures are lowered to around 35 °C (95 °F) and goes upto 44°C but humidity is a very high and nights are around 27 °C (81 °F).

The climate is pleasant during the monsoon while autumn is temperate. The winters are not very cold but the temperatures in January range from 10 °C to 15.5 °C. Land under Farm Management is privately owned by the Farmers. FMUs includes Middle range farmers and there are some large farmers having more land holdings.

We are providing a summary of district wise FMUs in the table 1 till 2022.

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S. No	Name of District	Old FMUs	Area in Ha.	New FMUs	Area in Ha.
1	Тарі	42.0	85.6	103.0	115.8
2	Surat	369.0	1078.5	174.0	381.5
3	Navsari	40.0	117.5	67.0	115.7
4	Valsad	4.0	13.5	14.0	23.4
5	Bharuch	226.0	1459.2	341.0	863.3
6	Vadodara	85.0	430.1	303.0	840.1
7	Aravalli	26.0	50.5	12.0	38.3
8	Chottaudeipur	29.0	143.9	135.0	455.2
9	Narmada	2.0	20.0	80.0	223.4
10	Panchmahal	3.0	23.0	4.0	11.3
11	Sabarkantha/Kheda	13.0	24.1	4.0	11.9
12	D &N	2.0	7.7	0.0	0.0
13	Dhulia			212.0	493
14	Nandurbar			64.0	126.9
15	Jalgaon			234.0	603.7
16	Jalna			3.0	2.7
17	Aurangabad			26.0	60.5
18	Ahmednagar			1.0	3
19	Nashik			3.0	4.1
20	Barwani			5.0	8.8
21	Dhar			2.0	1.2
22	Khandwa			6.0	16.7
23	Khargone			7.0	24.1
	Total	841	3454	1800	4425

C) How the objectives will be met, harvesting methods and silviculture (clear cuts, selective cuts, thinnings) to ensure sustainability:

The FM/ FME has a full fledged plantation team who are looking at the plantation activity in the State of Gujarat, Maharashtra and Madhya Pradesh. We are engaging the same staffs in the implementation of the project activity in their respective areas. We have conducted training session regarding the principles and criteria of FSC-FM, the implementation and monitoring procedure for monitoring of FSC-FM project. After training the Staffs are conducting training programmes for the farmers and explains regarding FSC-FM Certification and advantages.

The harvesting method for Subabul and Eucalyptus are the clear cutting. It is to be harvested in a 3-4 year cycle. It is a coppicing crop and the farmer can get 3 harvests in one planting. After the first harvest a number of shoots sprout from the stump, of which only the two to three leading shoots are retained and allowed to grow and the all others are cut. The silvicultural operations to be carried out to have a better growth is given below:

Operation Year	Operation	Duration (Month)	
1 st	Removal of bushes & making land suitable for planting	April - June	
	1st Ploughing	June	
	Pitting & Planting	June – Sept (With onset of Monsoon)	
	1st dose of fertilizer and anti-termite application	Within 30 days of planting.	
	Soil working & 2nd dose of Fertiliser (Optional)	October - November	
2 nd	Soil working & Fertiliser application (Optional)	June - July	
3^{rd} - 4^{th}	Harvesting	Oct - June After 3-6 months after harvesting	
	Tending & Maintenance of Coppice		
	Ploughing & Fertiliser application (Optional)	During Monsoon	
7^{th} -8 th	2nd Harvesting	Oct - June	

Silvicultural operations of Eucalyptus plantation is provided below:

Operation Year	Operation	Duration (Month)
1 st	Removal of bushes & making land suitable for planting	April - June
	1st Ploughing	June
	Pitting & Planting	June – Sept (With onset of Monsoon)
	1st dose of fertilizer and anti- termite application	Within 30 days of planting.
	Soil working & 2nd dose of Fertiliser (Optional)	October - November
2 nd	Soil working & Fertiliser application (Optional)	June - July
2^{nd} - 3^{th}	Harvesting	Oct - June
	Tending & Maintenance of Coppice	After 3-6 months after harvesting
	Ploughing & Fertiliser application (Optional)	During Monsoon
6^{th} -7 th	2nd Harvesting	Oct - June

Silvicultural operations of Subabul plantation is provided below:

D) Sustainable harvest limits (which must be consistent with FSC criteria 5.6) :

Eucalyptus has a rotation age of 3 to 4 years and Subabul 2-3 years. The FMUs owner will harvest and send the raw material to the Mills in the 3rd/4th year. We are doing more plantation than the harvested area to have a sustainable harvest limits. The choice of species is governed by the ability to grow well on a particular site, fast rate of growth, low gestation period, and above all ready marketability of the produce preferably backed up by an industry link up. We are already having genetically superior varieties of following species, which is of enormous help to local people.

The species are Subabul and Eucalyptus.

However, the final decision for selecting the species is with farmer only. Generally, farmers are choosing Eucalyptus because of the following concern.

- \Box The species are suitable to the soil & climatic conditions
- \Box Its coppicing ability and

Government regulations on harvesting & transportation (Stringent transit rules are applied for Acacia species). And Currently farmers are planting only Eucalyptus and Subabul.

The JK PAPER LTD. UNIT- CPM is also encouraging the farmers to go for this species because of the demand from the users. JK PAPER LTD. UNIT- CPM is clearing all the doubts raised by the landowners about this species at the time of awareness programmes, meetings with the Farmers, Members of the JK PAPER LTD. UNIT- CPM.

We are providing the expected yield of Annual harvesting (MT) table below-

Year	Expected wood yield in MT	Actual Harvesting in
		МТ
2021-22	25000	5325
2022-23	60000	
2023-24	200000	
Total		5325

Statement showing approximate harvesting yield in MT from proposed FMUs

E) Plans for monitoring plantation/forest growth/ Coppice:

The FME has a robust monitoring plan, through which we are doing the monitoring of the plantation/forest growth every year as per the below mentioned criteria:

There are some growth indicators in monitoring of plantation/Forest growth and dynamics like Height (Mtr) and Girth (Cms) along with the survival of the plantation.

The monitoring will be carrying out every year with help of our field staffs. All the monitoring sheets will come to Central Plantation Office (CPO) for data entry and compilation purpose. A summary of the report is generated every year.

Summary of Monitoring:

We are recommending to follow the existing package of practice. We do not found any pest/disease incidence in the operational area during monitoring.

Monitoring of Coppice:

After harvesting of plantations, we usually do the monitor of the coppice plantation on the following parameters. Coppice tending done/not, Survival of the coppice stumps, cultural practices adopted like Ploughing and fertilizer application.

F) Environmental/ Social impacts of the plan:

The Project provides a positive environmental and social impacts in its area of operation. Most of the project area are either fallow or some kind of subsistence agriculture was being carried out on those lands. So productive utilisation of land resource was not being done. After the implementation of the project the land resource is in proper productive use and the farmers can get a better return than from the previous use. Through our stakeholder interactions for our assessment of the affect to other persons and their crops, we have found that, there is no effect to other crops outside the boundary of the plantation. So, there is not much impact on the environment or on society by implementing the Project. JK CPM undertakes soil testing to ensure soil quality and engages with local people on a regular basis to ensure that no riparian zone or other HCVFs are affected, which is also assured by an HCVF form created following collaboration with the respective forest authorities, local knowledge holders, and village sarpanch. For the foregoing JK Papers strictly adheres to the new FSC FM guidelines. We also encourage farmers to use only organic manure or biofertilizers in their field to maintain the soil quality.

G) Conservation of rare species and any high conservation values :

All the plantations are being carried out in the farmer's own Patta/sat barah lands. We are giving our observations regarding the availability of HCVF (High Conservation Value Forest) in our plantation (Forest) area. We have also conducted the stakeholders consultation for the identification of rare, threatened and endangered species nearby or within farm land and also for the HCV.

*(Note- JK Paper ensures that a form known as HCVF Form is maintained by all the field officers.)

Rare, Threatened and Endangered Species: No rare, threatened, or endangered species which are protected under national laws. So, there is no HCVF found within our Project boundaries.

Riparian Management Zone (RMZ): No RMZ found within the or nearby project boundaries.

Ecosystems/ Habitats: No special or unusual types of forest area available. So, there is no HCVF found within our Project Boundaries.

Environmental Services: All the lands are being owned by individual farmers. Most of the lands owned by farmers are irrigated uplands usually plain or having less slope. There is non availability of any important service being provided to the local community or to others living downstream from the plantation area. So, there is no HCVF found in our Project boundaries.

Social and cultural values: The dependency of other persons except the land owner on the plantation/ forest land is not there with respect to Pulpwood, fire wood, bark or seed. None of trees and sacred places are disturbed by our FSC plantation programme. So, we can conclude there is no HCVF found in our operational areas.

H) Maps of the forest, showing protected areas, planned management and land ownership:

The FME had collected the documents like identity Proof, the record of ownership (Land Patta, sat barah, ID card, consent form) to proof that the land is owned by individual farmers and it is not a common land or forest land. And we will keep these land proofs in our records for 5 years. We are also preparing a rough sketch of the plot along with the neighbouring plots and the agricultural practice adopted by the surrounding people. As all the lands belongs to individual farmers there is no such protected area found within the FMUs. All the maps of the plantation area and protected area nearby are already plotted and given in the manual.





Map 1: Showing FMUs Districts and Protected Areas

I) Description and justification of harvesting techniques and equipment to be used.

Farmers will use local axe for harvesting. And harvesting to be done physically with the help of local village workers and also this will generate employment for local manpower. Farmers are using Tractors for ploughing and general soil preparation. Saplings and seeds are sown in the field by hand.

The challenge of Pest and weed normally comes in the initial few months of plantation, when the plants are very young. So, our advice to farmers to plant the tree with onset monsoon, so that plants growth is good and pest attack is very minimal. Even if there is some pest attack, we are advising to use organic preventives and not to use the chemical pesticides. For minimizing the weed control, we are advising the farmers to take up ploughing operations in their lands after two months of planting so, that the weeds are removed. Similarly, we are advising to do soil working and weeding around the plant and take up some kinds of soil and water conservation measures in their land to prevent soil erosion and moisture availability for better growth.

J) Duration of the plan:

The management plan is for a duration of 5 years. We will review the management plan every year and take up necessary amendments/ changes based on the implementation of FSC-FM project on year to year basis.

Dr. Sudhir Chauhan Group Manager