

Sector:

Forest

Project Title:

Bamboo Processing Plant

Project Description

The demand of bamboo, which is known as the “poor man’s timber” has seen a resurgent in the recent times. Bamboo provides a cost effective, sturdy and environmental friendly alternative to wood for construction material, furniture, and handicrafts and is a raw material to wide range of industries such as food processing, Paper, charcoal etc.

To leverage Madhya Pradesh rich bamboo resource, the State Government proposes to establish a modern bamboo processing Plant in MP. The plant would facilitate conversion of bamboo into value added products of end use. The high end machinery and advanced processing technology would alleviate large scale processing with increased productivity and efficacy.

The Plant would be established over 3 acres of land and would have the following processing facilities.

S.No	Key Processing Functions
1	Bamboo Furniture Unit
2	Bamboo Handicraft Unit
3	Bamboo Plywood Unit
4	Activated Carbon Production Unit

The State is willing to invite private participation for the envisaged project under the Public Private Partnership (PPP) module. The private investor has the opportunity to venture as sole proprietor or in partnership with the State Government.

Project Rationale

Bamboo occurs abundantly in various clusters distributed throughout the State. At present most of the bamboo is supplied as raw material for the production of paper or is utilized by the State rural population for the production of handicraft at a small scale. A modern processing plant would assist the State in realizing higher value potential by producing various goods of commercial importance.

Madhya Pradesh can benefit immensely by supporting a bamboo based industrial cluster. The sector has great potential to generate substantial revenue and employment to a large rural population currently engaged in its cultivation and processing using archaic techniques. Thus it can be employed as a key driver of economic prosperity in the rural and backward areas.

Market Potential and Demand Dynamics

The traditional image of bamboo as a material of construction for temporary and primitive structures has been the key reason for its low demand and under utilization of a naturally occurring inexpensive valuable resource. With realization of its true potential as a material with multipurpose applications, the demand has seen a renaissance both in the domestic as well as in the international market. Global bamboo market in 2004 was estimated around USD 10 bn and is expected to become USD 20 bn by 2015, riding mainly on the demand from US especially for paper production.

India is the world's second largest producer of bamboo after China. Together, among them, India, China and Myanmar have 19.8 mn hectares of bamboo reserves which constitutes 80% of the world's bamboo forests. With nearly 125 different species, India possesses nearly 45% of the global bamboo reserves however but its share in the global market is only 4%. Indian bamboo has the potential to become a major export commodity for the global market.

According to estimates by National Mission on Bamboo Technology and Trade Development under the Planning Commission, the Industry has the potential to replace the projected import of timber to the tune of USD 6.7 bn by the year 2025. Further, planning commission estimates that, the Indian bamboo shoots industry has the potential to grow at an exponential rate of 25% per annum and is expected to garner market worth USD 66.6 mn. A large potential market exists for bamboo shoots in Japan, Hong Kong, Singapore and Thailand.

The demand for bamboo products is increasing across the globe. The future outlook for the domestic industry is encouraging and it is likely to witness an exponential growth in volumes as well as in value trade. The industry is expected to grow by 15% and earn about USD 5.7 bn in revenues by 2015.

The Indian Government is keen to support the development of bamboo industry and aiming it to garner nearly 27% of the global market by 2015. The Government is planning to earn an estimated USD 3.5 bn in revenues from the

bamboo industry by the end of Tenth Plan in 2007. Further, the industry is estimated to provide employment to nearly 8 million people.

The projected demand for various bamboo products are as follows:

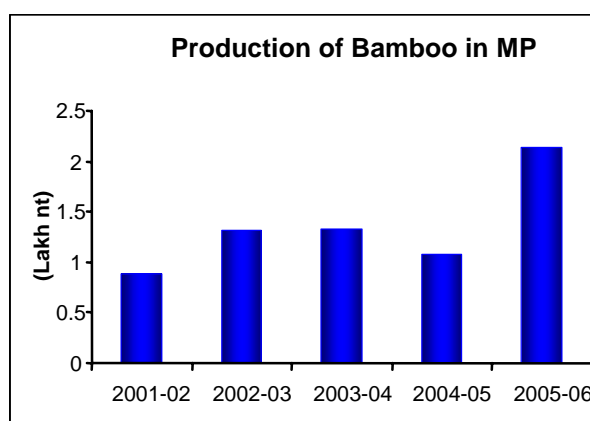
Bamboo Products	Market Value by 2015 (USD mn)
Bamboo Plywood	111
Bamboo Flooring Material	43.3
Bamboo Pulp	464
Bamboo Furniture	725.5
Bamboo Scaffolding	191
For Housing	258
Road Construction	60.8
Bamboo Grids	22.2

Source: NABARD

Why Madhya Pradesh?

Centrally located in the heart of India, the State is among the leading bamboo producers in the Country. Bamboo occurs in ample quantity in the forest of MP especially in the eastern district.

From centuries, traditional communities in the State have used bamboo as a basic resource material for basketry, home building and for agriculture support.



Source: Forest Department MP

Bamboo is classified as Minor Forest Product and its cultivation and consumption is monitored by the Forest Department of the Government of Madhya Pradesh.

The key advantages offered by the State are:

- Assured supply of raw material
- Ample availability of economic land
- Abundant availability of cost effective manpower

- Large base of local craftsmen with traditionally honed skills in cultivation, harvesting and processing of bamboo.
- Traditional honed skilled of local craftsman in cultivation, harvesting and processing of bamboo
- Strategic central location facilitates cost competitive logistic functions
- Proximity with the key ports facilitates exports
- Supporting policies and conducive business climate.
- Peaceful labour environment

Location Analysis

Shahdol have been identified as potential location for establishing the envisaged plant. The location has been earmarked due to their proximity with the bamboo abundant areas.



Government Support

The Government would act as a key facilitating agency for the project. The Government can also extend key fiscal and policy support. Since the distribution of bamboo is regulated in MP, the Government would ensure adequate supply of raw material to the plant.

Proposed Capacity and Estimated Cost

S.No	Key Processing Functions	Capacity	Machinery Cost
1	Bamboo Furniture Unit	200/day	2 lac
2	Bamboo Handicraft Unit	200/day	1.5 lac
3	Bamboo Plywood Unit	0.1 million sq. feet/ annum	50 lac
4	Activated Carbon Production Unit	5 Tonnes/Day	67 lac

Proposed Investment

The total capital investment is estimated around USD 0.8 mn or INR 4 crores.

Returns

The estimated Internal Rate of return from the project is in the range of 20-25%.

Coordinating Agency

Madhya Pradesh Forest Department