

# **National Bamboo Mission**

Strengthening India's Green Economy Through Bamboo

# **Key Takeaways**

- The restructured National Bamboo Mission promotes bamboo cultivation, processing, and marketing across 24
  States/UTs.
- The Mission supports farmers and MSMEs through financial assistance, FPO formation, and skill development.
- NBM also aids in **reviving** the **agarbatti sector** and reducing import dependence.
- Success stories from Madhya Pradesh, Maharashtra, and Assam show positive impacts on rural livelihoods and women's empowerment.

### Introduction

India has the highest area (13.96 million hectare) under bamboo and is the second richest country, after China, in terms of bamboo diversity with 136 species (125 indigenous and 11 exotic). In most hilly states of India, bamboo is widely used as a construction/building material. It also has growing demand in other countries, with traditional as well as modern applications in industries such as furniture, textiles, food, energy, and herbal medicine.

The bamboo and rattan industry of India is worth Rs. 28,005 crores. Keeping in view the vast untapped potential of the bamboo sector, the restructured National Bamboo Mission (NBM) was approved in April 2018 by the Union Cabinet Committee on Economic Affairs (CCEA), for implementation across the country for

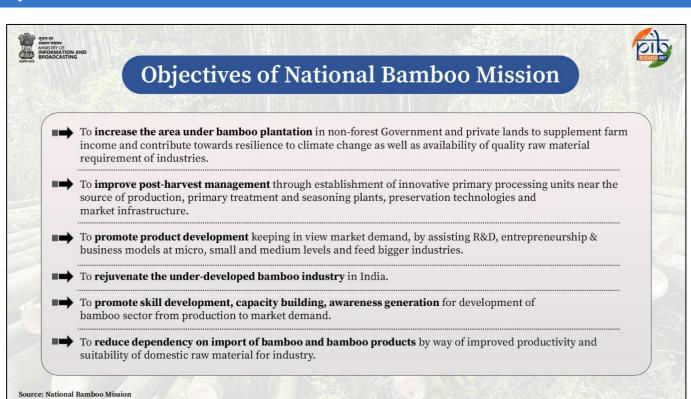


**boosting cultivation of quality** and **appropriate species**, **treatment**, **primary processing** for supply to our industry so as to make it competitive both in the domestic and global markets.

The Mission envisages promoting holistic growth of bamboo sector by adopting area-based, regionally differentiated strategy and to increase the area under bamboo cultivation and marketing. Under the Mission, steps have been taken

to increase the availability of quality planting material by supporting the setting up of new nurseries and strengthening of existing ones. To address forward integration, the Mission is taking steps to strengthen marketing of bamboo products, especially those of handicraft items. The restructured National Bamboo Mission is a Centrally Sponsored Scheme. It is being implemented through the state nodal departments which are nominated by the concerned State/UT governments. The selection of beneficiaries and delivery of assistance are being carried out by the State Bamboo Mission/State Bamboo Development agency stationed at the State/UT nodal department for implementing the Mission. Presently the scheme is being implemented in 24 States/UTs.

# **Objectives of the National Bamboo Mission**



# **Achievements of National Bamboo Mission**

Physical progress of the restructured NBM as of December 31, 2024 is as follows:

408 Bamboo nurseries including 14 accredited nurseries have been established.

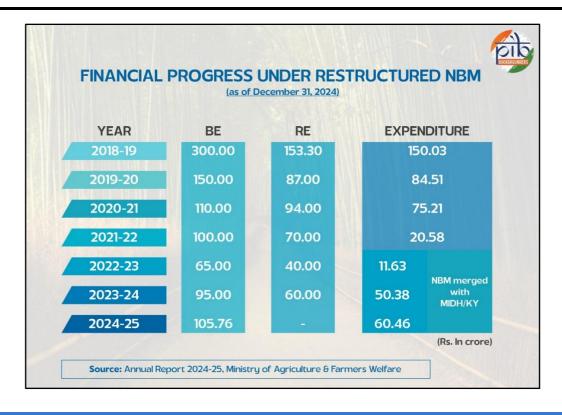
60,000 hectares of non-forest area have been covered under bamboo plantation.

104 bamboo treatment and preservation units have been established.

**528 product development and processing units** have been set up.

130 market infrastructure facilities for bamboo trade have been created.

Details of **financial progress** under restructured NBM as of **December 31, 2024** is as follows:



# Different Types and Uses of Bamboo

Bamboo Species	Common / Local Names	Primary Commercial Uses
Bambusa balcooa	Bhima, Baluka (Assamese), Balku Bans	Agarbatti sticks, handicrafts, pulp
	(Bengali)	
Dendrocalamus strictus	Karali (Bengali), Nakur Bans (Gujarati), Salia	Musical instruments, furniture, construction,
	(Oriya)	medicinal leaves
Melocanna baccifera	Tarai (Assamese), Muli (Bengali), Moubi	Flute making, weaving, pulp, edible shoots and
	(Manipuri)	seeds
Ochlandra travancorica	Eeta (Malayalam), Eeral (Tamil)	Mat weaving, basketry, bamboo ply, umbrella
		handles, thatching
Dendrocalamus asper	Sweet bamboo	Edible shoots, poles, pulp
Bambusa polymorpha	Jama Betwa (Assamese), Betua (Bengali),	Landscaping, edible shoots, agarbatti sticks,
	Narangi Bans (Hindi)	construction
Pseudoxytenanthera	Malabar bamboo, Manga (Marathi), Marihala	Food containers, construction, basketry,
stocksii	Biduru (Kannada)	furniture
Dendrocalamus giganteus	Worra (Assamese), Maroobob (Manipuri),	Boat mast, building, construction, edible
	Anamula (Malayalam)	shoots
Thyrsostachys oliveri	Rangoon bamboo, Korana (Malayalam)	Furniture, basketry, construction, poles
Schizostachyum	Bhalan Bans (Hindi), Madang (Assamese),	Landscaping, handicrafts, pulp
pergracile	Wootang (Manipuri)	

# **Genesis and Evolution of the National Bamboo Mission**



The National Bamboo Mission was launched as a Centrally Sponsored Scheme (CSS) in 2006-07 and was subsumed under Mission for Integrated Development of Horticulture (MIDH) during 2014-15 and continued till 2015-16. Funds were released thereafter only for maintenance of bamboo plantations raised earlier under NBM. It was, however, largely limited to propagation and cultivation of bamboo, with limited seasoning and treatment units and bamboo bazaars.

#### Mission for Integrated Development of Horticulture (MIDH)

MIDH Suraksha is a Centrally Sponsored Scheme for the holistic growth of the horticulture sector covering fruits, vegetables, root & tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo.

Though NBM contributed significantly towards enhancing bamboo areas both in forest and non-forest areas, the main weakness of the scheme had been the absence of a linkage between the producers (farmers) and the industry, a strong value addition component and weak efforts in organizing bamboo farmers for aggregation through institutions such as cooperatives, SHGs, JLGs etc. Hence, the emphasis was then focused on propagation of quality plantations of bamboo of the commercially required species, product development and value addition, including primary processing and treatment; micro, small & medium enterprises as well as high value products; markets, and skill development, thus, ensuring a complete value chain for growth of the bamboo sector to boost bamboo-based industry which would also have a ripple effect on rural economy.

The following issues are being addressed in the restructured Mission, in order to enable holistic development of the bamboo sector:

### 1. Inter-Sectoral Synergy:

Restructured NBM is serving as a common platform to coordinate efforts across various Ministries, Departments, and organizations like NCDC, ensuring better integration of bamboo-related activities at both central and state levels.

### 2. Enhanced Productivity:

Efforts are underway to close the demand-supply gap by promoting quality planting material, improved farming practices, and R&D support. High carbon-sequestering bamboo varieties are being promoted to support India's climate goals under the Paris Agreement.

#### 3. Indigenous Tools & Technologies:

R&D activities are being encouraged to develop tools and machinery suited to Indian bamboo species, aiming to reduce post-harvest losses and enhance processing efficiency at both community and industrial levels.

#### 4. Product Development & Marketing:

Innovations in bamboo product design, value addition, storage, primary processing, skill development, and market linkages are being actively pursued.

### 5. Policy Support for Industry Growth:

Policy incentives are being rolled out to accelerate the development of the bamboo sector, recognizing its potential to boost farmers' income and rural employment.

# 6. Promoting Bamboo in Construction:

Steps are being taken to mandate the use of bamboo in government construction projects such as schools, healthcare centres, railways, and barracks. This is giving a significant push to ecofriendly, disaster-resilient infrastructure and increasing demand for bamboo products.



# Mission Strategy and Key Outputs of the National Bamboo Mission

To achieve the mission objectives, NBM has adopted a **regionally targeted**, **end-to-end value chain approach** for the development of the bamboo sector. The core strategies include:

**Regional Focus**: The Mission concentrates on states with social, commercial, and ecological advantages for bamboo, particularly in the North East, and other bamboo-rich states like Madhya Pradesh, Maharashtra, Chhattisgarh, Odisha, Karnataka, Uttarakhand, Bihar, Jharkhand, Andhra Pradesh, Telangana, Gujarat, Tamil Nadu and Kerala.

**Superior Planting Material**: Production and distribution of genetically superior bamboo species with high commercial and industrial demand are being prioritized.

**End-to-End Value Chain**: NBM adopts a complete value chain approach — from bamboo growers to consumers — incorporating production, primary and secondary processing, value addition, and marketing through a **cluster-based model** with participation from FPOs, cooperatives, and SHGs.

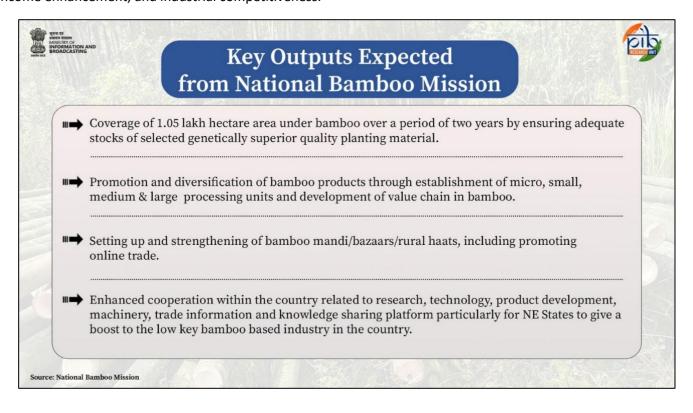
**Institutional Synergy**: The Mission acts as a platform to synergize efforts of various Ministries and Departments for pooling resources and technical expertise based on their competencies.

**Market Access & Exports**: Efforts are being made to boost both domestic and international trade in bamboo products through infrastructure support, e-trading platforms, and market linkages.

**Skill Development & R&D**: Emphasis is placed on capacity building through structured training, while R&D focuses on high-yielding clones, product innovation, improved processing technologies, and equipment development.

**Policy Support**: Incentives and mandates for bamboo use in government construction and integration with schemes like Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) and e-NAM are being promoted to mainstream bamboo into India's development ecosystem.

The Mission aims to deliver tangible outputs that directly align with its objectives of ecological sustainability, rural income enhancement, and industrial competitiveness.



# Incentives for the promotion of bamboo sector under the Bamboo Mission

A multi-pronged strategy has been adopted with the inclusion of both Government and private sectors, comprising of:

- Promotion and facilitation for bamboo cultivation
- Establishment of primary processing facilities
- Value addition and product development
- Promotion of micro, medium, and small entrepreneurships
- Adoption of a waste-to-wealth approach
- Development of market infrastructure and facilitation,
- Skill development initiatives
- Organization of campaigns, seminars, workshops, etc.

A **credit-linked back-ended subsidy** is provided with a pattern of 50:10:40 (subsidy: own contribution: loan pattern). **Additional assistance of 10%** is extended to the **private sector** in the **North Eastern States**.

Apart from the financial assistance provided by the National Bamboo Mission, **primary processing** and **marketing** of bamboo are also supported under the **Agricultural Infrastructure Fund (AIF)**. Additionally, **bamboo-based Farmer Producer Organizations (FPOs)** are being established under the FPO formation scheme of the Department of Agriculture and Farmers Welfare.

#### **Agricultural Infrastructure Fund (AIF)**

Launched in 2020-21, the AIF aims to bridge gaps in post-harvest management by supporting farm gate storage, logistics, and processing infrastructure. It is a medium-long term debt financing facility through interest subvention and credit guarantee support on loans for investment in viable projects for post-harvest management infrastructure and viable farming assets.

#### **Farmer Producer Organizations (FPOs)**

FPO is a generic name, which refers to farmer-producers' organization incorporated/ registered either under Part IXA of Companies Act or under Co-operative Societies Act of the concerned States and formed for the purpose of leveraging collectives through economies of scale in production and marketing of agricultural and allied sector. The concept behind FPOs is that farmers, who are the producers of agricultural products, can form groups.

# **Funding Pattern of the National Bamboo Mission**

The funding pattern of the scheme is **60:40** between Centre and State government for all States except **North East** & **Hilly states**, where it is **90:10** and **100%** in case of **Union Territories/ R&D Institutes/ Bamboo Technology Support Groups (BTSGs) and National Level Agencies**. For the **cooperatives sector**, the **central funding component** is routed through **National Cooperative Development Corporation (NCDC)** as the Nodal Agency. The States have the option to avail loans from NCDC for funding their requirements of State Share for the cooperative sector.

# Mission Structure of the National Bamboo Mission

The Mission follows a three-tier institutional structure for effective implementation, coordination, and monitoring of bamboo development activities across the country. These tiers operate at the **National**, **State**, and **District** levels, ensuring a seamless vertical and horizontal flow of responsibilities.



# Monitoring and Evaluation Mechanisms of the National Bamboo Mission

Besides monitoring the physical/financial achievements, other socio-economic and environmental impact on various indicators shall also be taken into consideration. A two-tier system is adopted i.e. Executive Committee (EC) at National level and State Level Executive Committee (SLEC) at State level. Third party independent evaluations, as approved by the EC, are also being done. Third party evaluation ensures participation & feedback from the farmers, farmers groups, artisans, women, etc.

Progress and achievements by the States is being tracked by the MIS (Management Information Systems) portal for the Mission. Geo-tagging of all infrastructure created is made mandatory and is uploaded on Bhuvan Portal in collaboration with National Remote Sensing Centre by the State Mission Directors.

# National Bamboo Mission Strengthening the Agarbatti Sector

The National Bamboo Mission has launched an MISbased reporting platform for agarbatti stick **production** to enhance **transparency** and **coordination** in the sector. This platform enables mapping of stickmaking units, raw material availability, production capacity, and market linkages. In collaboration with the Ministry of Ministry of Small and Medium Enterprises (MSME), Khadi and Village Industries Commission (KVIC), State governments, and industry partners, NBM is working to **revive** domestic agarbatti production, aiming for Atmanirbharta (self-reliance) and **global competitiveness**. The agarbatti sector traditionally provided large scale employment to the local workforce, which however dwindled due to various factors including the ingress of cheap imports round sticks and raw batti. Further, comprehensive study was carried out by NBM in 2019,



following which policy measures taken by the Government of moving raw batti imports from free to restricted

category in Aug 2019 and increasing import duty on round stick uniformly to 25% in June 2020, came as a boost to the domestic units.

# **Success Stories of the National Bamboo Mission**

# Bamboo: A Lifeline for Farmers – The Success Story of Vijay Patidar from Madhya Pradesh

Mr. Vijay Patidar, a progressive farmer from Khargone district of Madhya Pradesh, has successfully demonstrated how bamboo cultivation can be a sustainable and profitable alternative to traditional farming.

- Faced with the risks and losses associated with conventional crops, he turned to bamboo cultivation in 2019 and planted 4,000 saplings of bamboo.
- Supported by the **State Bamboo Mission** with a subsidy of **₹120 per plant over three years**, his costs were significantly reduced. Within **two years**, he **earned ₹75,000 by selling bamboo poles** to other farmers.
- Bamboo's resistance to pests and climate variations minimizes the need for costly inputs, while its dry leaves—about 1000 quintals per acre—can be composted into manure.
- Mr. Patidar also successfully **intercropped bamboo with chilli, capsicum, ginger, and garlic,** noting **reduced water use and better crop protection** due to the bamboo's shade.

Attracting **interest from traders**, he affirms that bamboo has strong market potential and advises local farmers to grow bamboo on at least 10% of their land for better income security.

# Gadchiroli Agarbatti Project: A Model for Women-Led Rural Livelihoods

The Gadchiroli Agarbatti Project (GAP), launched in 2012 in Maharashtra's tribal-dominated district, has created sustainable livelihoods for over 1100 people—90% of them women—through agarbatti production. With 32 operational centers, the project provides women steady income (₹5,000/month), skills training, and leadership opportunities.



By building infrastructure, introducing machines, and forming producer groups, GAP improved incomes, reduced migration, and fostered gender equity. It has disbursed ₹10 crore in wages and earned national recognition, including the Prime Minister's Award for Excellence in Public Administration. Supported by the Maharashtra Bamboo Development Board, the project continued operations even during COVID-19, offering stable income to 350 more women. GAP stands out as a successful, inclusive model for rural development and women's empowerment.

# State Bamboo Development Agency (SBDA), Assam: Boosting Bamboo Value Chain

The State Bamboo Development Agency (SBDA) is the implementing agency of the National Bamboo Mission in Assam. It has achieved the following key milestones:

- Quality Planting Material: Funded 10 nurseries at Krishi Vigyan Kendras and the Rain Forest Research Institute, Jorhat, to supply superior bamboo genotypes.
- Organised Cultivation: Promoted bamboo farming via FPOs like Ampri Orange, involving 609 farmers and 585 hectares.
   Proposed 18 more FPOs in 14 districts.



- Handicraft Promotion: Trained 10 artisans with Export Promotion Council for Handicraft, leading to ₹3.65 lakh in sales and daily incomes of ₹300–350.
- **Industry Linkage**: Signed MoU with Cycle Pure Agarbatties for buy-back and training, boosting local incense stick production.

These efforts are creating a strong and sustainable bamboo ecosystem in Assam.

# **Conclusion**

The National Bamboo Mission is playing a pivotal role in revitalizing India's bamboo sector through a structured and inclusive value chain approach. By aligning cultivation, processing, marketing, and policy support, the Mission is not only enhancing rural livelihoods but also promoting sustainable development. With focused efforts on capacity building, inter-sectoral synergy, and market access, NBM is set to transform bamboo into a key pillar of India's green economy and Atmanirbhar Bharat vision.

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