

NATIONAL BAMBOO MISSION

OPERATIONAL GUIDELINES

1. BACKGROUND

With a view to harness the potential of bamboo crop in the country through a multi-disciplinary approach, the Planning Commission brought out a report titled “**National Mission on Bamboo Technology and Trade Development**” (NMBTTD) in 2001-02. The report brings out the country’s future potential in bamboo development for the next two decades. Subsequent to this, a Detailed Project Report (DPR) for setting up a National Bamboo Mission was prepared.

The National Bamboo Mission will be a Centrally Sponsored Scheme in which the contribution of the Central Government will be 100%. The Scheme shall be implemented by the Division of Horticulture under the Department of Agriculture and Cooperation in the Ministry of Agriculture, New Delhi.

2. MISSION OBJECTIVES

The main objectives of the Mission are:

- To promote holistic growth of the bamboo sector through area based regionally differentiated strategies;
- To increase the coverage of area under bamboo both in forest and non-forest areas; with appropriate varieties to enhance yields;
- To promote marketing of bamboo based handicrafts.
- To establish convergence and synergy among stake-holders for development of bamboo.
- To promote, develop and disseminate technologies through a seamless brand of traditional wisdom and modern scientific knowledge.
- To generate employment opportunities for skilled and unskilled persons, especially unemployed youths.

3. STRATEGY

To achieve the above objectives, the Mission would adopt the following strategies:

- Adopt a specific approach covering production and marketing to assure appropriate returns to growers/producers;
- Promotion of Research and Development (R&D) of technologies for production.
- Enhanced acreage (in forest and non-forest areas) and productivity;
- Adopt a coordinated approach and promote partnership, convergence and synergy among R&D marketing agencies in public as well as private sectors, at all levels;
- Promote cooperatives and self-help groups to ensure support and adequate returns to farmers;
- Facilitation of capacity-building and Human Resource Development;
- Setting up of National, State and sub-State level structures, keeping in view the need for getting adequate returns for the produce of the farmers and eliminating middlemen to the extent possible

4. MISSION STRUCTURE

(I) National Level

(a) National Level Apex Committee:

4.1. The Mission will have a National Level Apex Committee at the National level under the Chairmanship of Union Minister of Agriculture. The composition of the AC will be as follows:

Minister of Agriculture	Chairman
Minister - Forests and Environment, Textiles, Science and Technology, Commerce, Rural Development, Panchayati Raj, Tribal Affairs, Urban Development and Poverty Alleviation, Development of North Eastern Region, Small Scale Industries	Member(s)
Member (Forests & Environment) in Planning Commission	Member
Member, North Eastern Council (i/c Bamboo Development)	Member

Ministers of Forest/Agriculture/Horticulture of select States	Member(s)
Secretaries-A&C, Forests and Environment, Textiles, Science and Technology, Commerce, Rural Development, Panchayati Raj, Tribal Affairs, Urban Development and Poverty Alleviation, Development of North Eastern Region, Small Scale Industries	Member(s)
Experts (Two) and one processor	Member(s)
Mission Director	Member Secretary

4.2. The Apex Committee will be the policy making body giving overall direction and guidance to the Mission, and will monitor and review its progress and performance. The Apex Committee will meet once every year.

4.3. The Committee will meet once every year to provide overall guidance, monitoring and review.

(b) National Steering Committee

4.4. There will be a National Steering Committee headed by the Secretary, Deptt. of Agriculture & Cooperation to oversee the activities of the Mission and to approve the Action Plans. The National Steering Committee will comprise of the following:

Secretary (A&C)	Chairman
Secretaries – Forests & Environment, Textiles, Science and Technology, Commerce, Rural Development, Panchayati Raj, Urban Development and Poverty Alleviation, Tribal Affairs, Development of North Eastern Region, Small Scale Industries	Member (s)
Secretary, North Eastern Council	Member
Representative from NABARD	Member
Experts (Two)	Member (s)
Mission Director	Member Secretary

4.5. The National Steering Committee will be empowered to reallocate resources across States and components and approve projects on the basis of the approved subsidy norms. National Steering Committee will use its discretion in approving components of a project for which norms have not been prescribed. The subsidy

for such components will not be more than 50% of the cost for small and marginal farmers and 30% of the cost for other farmers.

- 4.6. The Horticulture Division in the Department of Agriculture & Cooperation will provide the necessary support to the National Steering Committee and will administer the NBM. The National Steering Committee will ensure smooth functional linkages among different agencies. The National Steering Committee shall meet every quarter, but at least once in two months in the initial stage of the mission.

(II) State Level:

(c) State Level Bamboo Steering Committee:

- 4.7. At the State Level, Bamboo Steering Committee will be formed under the Chairmanship of the Secretary/ Horticulture / Environment and Forests/Agriculture as may be decided by the State Government concerned. This Committee will have representation from the Departments concerned, Research Institutes, progressive growers and entrepreneur's etc. for overseeing the implementation of the programmes. Central Government will nominate its representative who will be a Member in the SLBC. This Committee shall be responsible for approving the Action Plan, effective implementation and monitoring of the scheme. The State Level Steering Committee will comprise of the following:

APC/ Secretary (Horticulture/ Forestry)	Chairman
Secretaries – Forests & Environment, Finance, Textiles, Science and Technology, Commerce, Rural Development, Panchayati Raj, Urban Development and Poverty Alleviation, Development of North Eastern Region, Small Scale Industries	Member (s)
Secretary, North Eastern Council	Member
Representative from NABARD/ Lead Bank	Member
Experts	Member (s)
Progressive farmers (2 Nos.), Entrepreneur (1 No.)	Member (s)
Director (Horticulture/ Forestry/Agriculture), Mission Director	Member Secretary

(d) State Level Agencies

4.8. In Government forest lands, bamboo plantation programme will be undertaken through the Forest Development Agencies (FDA) and the Joint Forest Management Committees (JFMCs). However, in case of Non-Forest Areas, the funds will be released by Ministry of Agriculture/ Horticulture to the Bamboo Development Agencies (BDAs) concerned for onward disbursement to the beneficiaries. The State Mission Director to be appointed by the State Government will be the Member Secretary. **At the operational level, State Governments will have the freedom to nominate or create a suitable autonomous agency to be registered under the Societies Registration Act for implementing the Mission programmes at the State and District levels.** The Panchayati Raj Institutions existing in the State would be fully involved in the implementation structure.

4.9. The State Level Agency will have the following functions:

- Prepare perspective and annual State Level Action Plan in consonance with Mission's goals and objectives in close coordination with Bamboo Technical Support Group (BTSG) and oversee its implementation;
- Receive funds from the national mission authority, the State Government and other sources for carrying out the mission's activities, maintain proper accounts thereof and submit utilization certificate to the concerned agencies.
- Release funds to the implementing organizations and oversee, monitor & review the implementation of the programmes.
- Organize base-line survey and feasibility studies in different parts (District, sub-District, or a group of Districts) to determine the status of bamboo production, its potential and demand, and tailor assistance accordingly. Similar studies would also be undertaken for other components of the programmes;
- Assist and oversee the implementation of the Mission's programmes in the State through Farmers, Societies, NGOs, growers, associations, self-help groups, State institutions and other similar entities;

- Organize Workshops, Seminars and training programmes for all interest groups/ associations at the State level.

(III) District Level:

(e) Non-Forest Areas

4.10 The Bamboo Development Agency of every State will constitute a District Level Committee (chaired by the District Horticulture Officer, etc., as the case may be). The Committee will comprise of officials from Agriculture/ Horticulture, Forest, Rural Development and other line departments, SHGs, NGOs, Industries, etc. All proposals received would be compiled and sent to the BDA for appraisal and scrutiny. This Committee will also oversee, coordinate and control all activities at the district level for non-forest areas. The District Planning Committee and Panchayati Raj Institutions (PRI) will be integrated/ involved in implementing the programme depending on their expertise and available infrastructure. The District Agriculture/ Horticulture Officer will be the Member Secretary.

(f) Forest Areas

4.11 In the forest areas of every district, the Forest Development Agencies (FDAs) will take the lead in carrying out the activities of the National Bamboo Mission. Proposals received from the JFMCs would be compiled and sent to the FDA for appraisal and scrutiny. The FDAs will oversee, coordinate and control activities at the district level for forest areas.

(IV) Technical Support Group

(g) Bamboo Technical Support Group (BTSG)

4.12 The National Bamboo Mission will cater to a new and emerging area of development and the role of Experts will be central to the management of the Mission. The BTSG will be housed at the National/Regional level institutions located in different regions, which will have flexible norms for recruiting professionals on contract. Service providers could also be engaged for giving the technical services in accordance with the terms of reference laid for the purpose and approved by National Steering Committee. The BTSG would comprise of personnel at different levels, who will provide the technical services and their honorarium will be fixed on the basis of qualification, experience and last pay

drawn, if retired from Government. Fresh graduates having knowledge in horticulture/forestry, computer professionals, MBA graduates, young professionals could also be a part of the TSG.

4.13 BTSG will have the following role and functions:

- (a) To visit the concerned States frequently to provide guidance in policy, organizational and technical matters
- (b) To compile materials for conduct of regional workshops in respect of bamboo plantations, handicraft, bamboo marketing and exports
- (c) To conduct studies on different aspects of bamboo
- (d) To assist the States in capacity building programmes
- (e) Undertake publicity campaigns to promote the Mission objectives
- (f) To document and disseminate case studies of success stories
- (g) To conduct specialized Training Programmes at the Regional Level
- (h) To network with various stakeholders and Institutes/ Organizations/ Agencies, both in India and abroad

4.14 The State Level Steering Committee can also set up State Level TSG for project formulation, appraisal and concurrent monitoring. State Level Agencies will have the freedom to hire consultants for providing technical support at the State as well as District levels.

4.15 The indicative administrative structure of the NBM at the National, State and sub-state level is given in **Annexure-1**.

5. PROCEDURE FOR APPROVAL AND IMPLEMENTATION

5.1. States will be required to prepare a Bamboo Development Mission Document (BDMD) projecting a plan of action for the X Plan and XI Plan periods. The BDMD will form the basis for preparing Annual Action Plans (AAP). The AAP will be area based, on the basis of existing potential for bamboo development, available infrastructure for implementation and monitoring, available unspent balance out of previous release and capacity to absorb the funds in taking up activities. In non-forest area, the Committees at the District level will prepare and submit the Annual Action Plan (AAP) to the Bamboo Development Agency (BDA), which in turn will submit to State Level Steering Committee. In forest area, the Annual Action Plan will be prepared by Joint Forest Management

Committee (JFMC) and submit to Forest Development Agency, which in turn, will submit to the State Level Steering Committee for finalization. AAP approved by the SLSC will be considered by the National Steering Committee. Attempt would be made in the AAP to address all the issues relating to bamboo development covering production, Handicrafts and marketing. Format for submission of Annual Action Plan to the Ministry of Agriculture is given at **Annexure - 2.**

5.2. The SLCs will upload the AAP, as communicated to the National level Steering Committee, on the web site exclusively created for the purpose. The same will be replaced after its approval by National level Steering Committee. Attempts will be made to display the position regarding approvals of the AAP online.

5.3. There are 4 Mini-Missions details of which are given below:-

<u>MINI- MISSION-I</u>	<u>MINI-MISSION – II</u>
Objective: Research & Development	Objective: Plantation Development
Implementing Agencies: ICFRE, IPIRTI, DBT, IIT Mumbai	Implementing Agency: ICFRE, State Governments
Project Based	Work Plan/Action Plan Based
<u>MINI-MISSION-III</u>	
Objective: Handicrafts, Bamboo marketing and exports	
Implementing Agencies: Development Commissioner(H), NHB, KVIC	
Work Plan/Action plan based	

6. MISSION INTERVENTIONS

- 6.1. The Mission will be demand and need based in each segment. Technology will play an important role in different interventions. Technologies such as Information Communication Technology (ICT), Remote Sensing and Geographic Information System will be widely used for planning and monitoring purposes.
- 6.2. The interventions envisaged for achieving the desired goals would be varied and regionally differentiated with focus on bamboo crops to be developed in clusters by deploying modern and hi-tech interventions and duly ensuring

backward and forward linkages. Details of the components, its estimated cost along with the approved norms of assistance is given in **Annexure-3**.

Key Elements of the National Bamboo Mission

1. Research and Development for Bamboo Development
2. Establishment of new Nurseries to raise bamboo seedlings
3. Raising high yielding bamboo plantations on commercial basis in Forest and Non-Forest areas
4. Improvement of senile bamboo plantations, Pest and Disease Management of bamboo.
5. Handicrafts, bamboo marketing and exports
6. Capacity building and Human Resource Development of farmers and personnel
7. Establishment of Bamboo Markets and new Marketing Strategy for Bamboo
8. Meticulous monitoring, evaluation and reporting, Database generation, compilation and analysis

Research and Development

6.3. The programmes under research and development will concentrate on technology generation as appropriate to each region/ State keeping in view their specific agro-climatic and socio-economic conditions. Emphasis will be on effective documentation/ transfer and dissemination of technologies available in India and abroad. The Indian Council of Agricultural Research (ICAR), Indian Council of Forestry Research and Education (ICFRE) Institutes such as Rain Forest Research Institute (RFRI), Jorhat and Forest Research Institute, Dehradun, Indian Institute of Wood Science, Bangalore(IWST); the State Forest Research Institutes; Indian Institute of Forest Management, Bhopal; (Kerala Forest Research Institute (KFRI), Peechi; Indian Plywood Industries Research & Training Institute (IPIRTI), Bangalore; Indian Institute of Technology (IIT), Bombay; Indian Institute of Science, Bangalore; Regional Research Laboratories (RRLs); Central Agricultural Universities; State Agricultural Universities and other research institutes in the public sector having capabilities in this area will be the primary institutes for taking up research programmes on bamboo. Research programmes will be guided by the Working Group on R&D

and will address identified and emerging needs in the areas of plantation, developing new Agro-forestry systems with bamboo, harvesting and sustainable management of bamboo resources, livelihood based ecosystem protection and improving the durability of bamboo.

Plantation Development

- 6.4. This component primarily aims at expansion of area under bamboo plantation in the potential areas, both in Government forests as well as in non-forest lands for commercial utilization. The main objective of this component is to increase production of commercially important bamboo species and shoots for regular supply to the processing units for production of more value added products. The overall goal of this component is to ensure that the target is achieved within the stipulated time in order to ensure employment generation and achieve rural poverty alleviation with input of right technology for supply of planting material and pre-harvest management practices. The principal activities under this are:

Establishment of Nurseries

- 6.5. For raising plantations, a sizable quantity of planting material will be required. This will be achieved through establishment of Centralized and decentralised nurseries. Planting materials will also be generated from Tissue Culture laboratories. Since establishing tissue culture laboratories will require time, the primary source for planting material would be through the conventional method of raising nursery seedlings.

6.6. The Nursery activities are categorized based on the area and yearly production capacities of plantlets. Accordingly, the following types of Nurseries are proposed:

Sl.	Programme	Estimated Cost	Pattern of Assistance
1.	Planting Material (Forest Area)		
	A. Centralized Nurseries		
	i) Public Sector (0.25 ha)	2.73 lakhs	100% assistance subject to a maximum @ Rs. 2.73 lakhs per Nursery.
	ii) Private Sector (0.25 ha)	2.73 lakhs	25% of cost subject to a maximum of Rs. 68,000 each as credit linked back ended subsidy.
	B. Nurseries in Private Sector		
	i) Kisan Nurseries (0.10 ha)	Rs. 26,000/- per unit	25% of cost subject to a maximum of Rs. 6,500/- per Nursery.
	ii) Mahila Nurseries (0.10 ha)	Rs. 26,000/- per unit	25% of cost subject to a maximum of Rs. 6,500/- per Nursery.
2	Planting Material (Non-Forest Area)		
	A. Centralized Nurseries		
	i) Public Sector (0.25 ha)	2.73 lakhs	100% assistance for subject to a maximum @ Rs. 2.73 lakhs per Nursery.
	ii) Private Sector (0.25 ha)	2.73 lakhs	25% of cost subject to Rs. 68,000 each as credit linked back ended subsidy
	B. Nurseries in Private Sector		
	i) Kisan Nurseries (0.10 ha)	Rs. 26,000/- per unit.	25% of cost subject to a maximum of Rs. 6,500/- per Nursery.
	Mahila Nurseries (0.10 ha)	Rs. 26,000/- per unit.	25% of cost subject to a maximum of Rs. 6,500/- per Nursery.

6.7. The forestry and the non forestry sector will deal with centralized nurseries capable of producing **50,000 seedlings per Unit per year** and decentralized nurseries (*Kisan* and *Mahila*) capable of raising **10,000 and 5,000 seedlings respectively per Unit per year**. The Centralized Nurseries will be of permanent nature. They may be established by Forest Departments, State Forest Development Corporations, User Industries, Research Institutions,

Universities and NGOs. On the other hand, the decentralised Nurseries (*Kisan /Mahila*) having the capacity of producing 10,000 to 5,000 seedling may be raised by individuals, groups, SHGs and NGOs. They will have the advantage of proximity to the planting area thereby reducing transportation costs.

Certifying Agency for Planting Materials:

- 6.8. In order to ensure quality supply of Planting Materials for commercial bamboo plantation in both Government Forest Land as well as the Non Forest Land, a suitable Certifying Agency will be identified by the respective BDAs/ FDAs in each State. For example, in the States of North Eastern Region, existing organizations like State Forest Research Institute, Rain Forest Research Institute, State Agricultural Universities, etc. who have expertise on the subject will be consulted. Similarly other States can also appoint Certifying Agencies in Public/ Private Institutions located in the specified region. Assistance for certification facilities for ensuring quality of planting material would be provided to the public sector/private sector on project basis.

Tissue Culture Laboratories

- 6.9 For supply of quality planting material in large quantities, which is free from diseases and viruses, Tissue Culture Units need to be set up. Effort will be made to set up these Units in the private/public or cooperative sector. Therefore, a provision is kept for setting up three such tissue culture labs in the country in the years 2006-08, one in the private sector and two in the public sector. Assistance up to 50% of the Project cost subject to a maximum of Rs. 10.50 Lakhs would be provided if it is set up in the private/ cooperative sector. In case of public sector, 100% assistance with a maximum limit of Rs. 21.00 Lakhs will be provided. Tissue culture Units would be set up only with close supervision and technical support from ICAR

Raising New Plantations

- 6.10 To begin with, an area of only 39,500 hectares is being taken up during the Tenth Plan period. This includes 16,000 hectares each in Govt. forest and non-forest areas and 7,500 hectares under Improvement of Existing Stock.
- 6.11. The identification of land is the pre-requisite for raising new plantations. The Principal Chief Conservators of Forests/Chief Conservator of Forests of the respective State Governments will be involved in identifying the potential areas for raising bamboo plantations in Government forest lands. Simultaneously, land will be identified in the non-forest lands in consultation with the State Horticulture/Agriculture/ Revenue/ Rural Development Departments. The BDA will attempt to identify and demarcate land immediately so that plantations can be raised expeditiously.

Planting Scheme

- 6.12 The planting scheme has to take into consideration the size and growth habit of the species. In the planting scheme envisaged for a few species, it is to be noted that spacing of plants between lines is greater than the spacing of plants in line. This is because it allows greater ease of movement for maintenance and harvesting activities and also allows movement of tractors and small vehicles. A model of 10 bamboo species is given at **Annexure -4**.
- 6.12.1. **Forest Areas** - MoEF will promote bamboo plantations on commercial basis in different States of the Country as per their mandate. Since the MoEF may not have sufficient resources to plant bamboo of their own, the entire fund required for planting bamboo in Government Forest Land under JFMS will be met from the National Bamboo Mission in a phased manner. The total cost of planting bamboo in one hectare of Government Forest Land works out to Rs. 25,000/-. The funds will be released in two equal instalments of 50:50. Assistance for the second year will be subject to 90 % survival of the plants.
- 6.12.2. **Non-Forest Areas** - The bamboo growers in the non-forest land would be extended direct subsidy up to 50% of the cultivation cost per hectare subject to a ceiling of Rs. 8,000/ for small and marginal/ SC/ ST farmers. The funds will be released in two equal instalments of 50:50. Assistance for the second year

will be subject to 90 % survival of the plants. Apart from the subsidy component, the funding mechanism in the private sector (non-forest areas) may be sourced from (a) linking with existing government programmes; and (b) through Bank Loans.

Improvement of Existing Stock

- 6.13. Crafts-persons and artisans of this country are dependant for their livelihood on handicraft items for which a specific number of bamboo species are being used since time immemorial. In order to improve the quality of such products, there is a need to improve upon the existing stock and variety of bamboo that is being used by these crafts-people and artisans. The existing stock of bamboo need to be improved so that the crafts-people and artisans can derive maximum benefits and returns from the products that are being manufactured from the existing stock. With a view to maximise returns without any substantial investment, an area of 7,500 hectares of the existing stock of bamboo will be improved initially. This task will be undertaken by BDAs and FDAs as in case of bamboo plantation at the state level.

Technology transfer & HRD in Plantation Development

- 6.14. Transfer of technology through training, frontline demonstration, publicity and training of the trainers are an integral part of the Mission. Under this programme, training of farmers and field level workers will be taken up. Appropriate training is required to be imparted to the farmers for the adoption of scientific measures (pre- and post harvest management) for high yield plantations of bamboo and harvesting of shoots. The important activities are to provide resource material to the trainees and acquaint them about various farming techniques through exhibitions and demonstrations. This activity will be carried out both by the government as well as the private sector and NGOs.
- 6.15. Further, project officers, district horticulture officers, agricultural extension officers and Block development officials will be trained in the modern technological advances in bamboo plantation at various ICAR/ ICFRE Institutes, SFRI and DBT Institutions in the country and within their respective states. These officers in turn, will train the staff and farmers in their respective

States. This activity will be project-based as per the proposals received from the States. Assistance will be provided as per norms given at **Annexure 5**.

Irrigation

- 6.16. Irrigating the bamboo plantations during the summer when without rain for 20 days or so is a must for better yield. For the Mission, such areas will be covered as have been identified under DPAP. Depending on proposals received from the States, an amount of Rs.20,000 towards purchase of irrigation systems per hectare will be provided subject to a ceiling of 4 ha. and depending on actual and emerging needs of the areas identified for plantation.

Technology Dissemination through Front Line Demonstration

- 6.17 Latest technologies will be promoted in bamboo plantation through active involvement of farmers' participatory demonstration in compact areas of one hectare. This will be organized at strategic locations and in draught prone States for which assistance will be limited to 50% of the cost. Plantations in the public sector could be sites for front line demonstrations.

Workshop Seminars at the National, State and District Levels

- 6.18. Commercial Bamboo Plantation will need a mass awareness programme right from the Policy Makers, at the Central and State Level to the farmers at the grass root level. These awareness programmes will have to highlight Socio-economic development related to bamboo plantation and nursery activities along with physical benefits and marketing efforts to be addressed by the National Bamboo Mission. These seminars will be project based and assistance will be provided as per norms given in **Annexure 5**.

Pests and Disease Management

- 6.19. Pests and diseases pose a serious threat to Bamboo right from the seed stage to finished products. Quite a number of insect fauna including sap-suckers, borers, defoliators have been reported from bamboo in the Indian sub-continent. Disease control in bamboo is essential, both at the natural level and the plantations involved by application of fungicides as well as other chemicals.

Depending on proposals received, an amount of Rs. 200 per hectare will be provided as a one time grant from the NBM for this purpose.

6.20 Innovative Interventions

Any new intervention in bamboo sector which may lead to increase in farm income by the introduction of innovative technology will be covered under this category.

6.21 Post-harvest storage and treatment facilities

Once the bamboo crop is harvested from the field it is required to be transported safely and stored properly. For this purpose, suitable warehouses need to be constructed near the villages. While storing the produce it needs to be treated to enhance its durability.

Handicrafts, Bamboo Marketing and Exports

6.22 The purpose of this component is to provide and increase employment opportunities, preservation and introduction of new designs and mechanization of bamboo-based crafts as living heritage and to assist in marketing these products. The main objectives of this component are:

- Introduction of Grading systems of round and primary processed bamboo
- Introduction of preservative methods (both conventional and chemical) according to use
- Conversion of niche bamboo handicrafts products to mass products
- Introduction of utility handicrafts through industrialized means
- Setting up of bamboo wholesale and retail markets near villages
- Marketing through Bamboo Festivals, *Melas*, *Expos*, *Craft Bazaars*, bamboo markets and introduction of an effective Electronic Information Flow system.

Bamboo Wholesale & Retail Markets near Village Level Micro processing Units

6.22.1 A total of 179 Bamboo Wholesale/Retail Markets will be set up all over the country. These markets, apart from other facilities, will have a computer and V-SAT facilities. These markets, apart from trading activities, will also keep track of the market information related to various bamboo products and thus, the

farmers and the primary processors will have direct access to such information and data, which in term will help them to plan their activities well ahead. These Markets can be set up and maintained by the community themselves or in partnership with the State Governments. The State Marketing Boards can also take up this activity. The expertise of DC (H) will be utilized for the purpose. The total cost of one such Market has been estimated at Rs. 16.00 Lakhs. Depending on proposals received from DC (H) and other Organizations, assistance will be provided to the extent of 25% of the cost subject, to a maximum of Rs. 4.00 lakh for general areas and 33.33% of cost, subject to a maximum of Rs. 5.33 lakh for Hilly/Tribal area.

Bamboo Bazaars

6.22.2 A total of 195 Bamboo Bazaars will be put in place throughout the country. Adjacent to these Bamboo Bazaar, information centres are proposed. These Bazaars also would have computers, V-SAT facilities for keeping track of various demand supply of bamboo products, costs, user industries etc. These Bazars can be set up and maintained by the community themselves or in partnership with the State Governments. The State Marketing Boards can also take up this activity. The expertise of DC (H) will be utilized for the purpose. The total cost of one such Market has been estimated at Rs. 27.00 Lakh. Depending on proposals received from DC (H) and other Organizations, assistance will be provided to the extent of 25% of the cost, subject to a maximum of Rs. 6.75 lakh for general areas and 33.33% of cost, subject to a maximum of Rs. 9.00 Lakh for Hilly/Tribal area.

Retail Outlets(showrooms)

6.22.3 To popularize various Bamboo handicrafts Products including processed shoots, a total no. of 10 Retail Outlets (Show-room) would be established in 10 Metros. These outlets would also have V-SAT facilities. The total cost of one such Show-room has been estimated at Rs.40.00 Lakh. Depending on proposals received from DC (H) and other Organizations, assistance will be provided to the extent of 25% of the cost, subject to a maximum of Rs. 10.00 Lakh for

general areas and 33.33% of cost, subject to a maximum of Rs. 13.33 Lakh for Hilly/Tribal area.

Participation in Domestic Trade Fairs:

6.22.4. In order to popularize and market various bamboo products throughout the country, at least 30 participants from each State will be chosen to participate in National Level Trade Fairs, at least twice a year. To and fro travel by railways, lodging, food and transportation etc. for the participants, including two truckloads of display products from each State would be provided. These would be project based activities, as per proposals received from the States and the assistance provided would be 75% of the cost subject to a maximum of Rs. 3.75 Lakh per event of 2 days.

Participation in International Trade Fairs:

6.22.5. To popularize the made in India Bamboo products worldwide, taking part in International Trade Fairs is a must activity. As such, at least 10 selected entrepreneurs from each State (to be selected from the participants of the National Trade Fair) would be sponsored to display their products in Trade Fairs abroad. This activity would be done twice a year. These would be project based activities, as per proposals received from the States and the assistance provided would be 75% of the cost subject to a maximum of Rs. 7.50 Lakh per event of 5 days.

Market Surveys:

6.23. Although a large number of market surveys have been conducted in recent times on high value and up market bamboo products, yet there remains a massive gap to address the needs, requirements and profitability of low and medium value bamboo products that are being made. This is all the more necessary in view of the fact that all Financial Institutions and Banks while appraising project proposals lay stress on the marketability of the products to be produced. As such, it would be in track to conduct a market survey especially related to bamboo products like tooth picks, window blinds, cotton ear buds, skewers and the like which have been conventionally made of wood in our country and the consumers are used to it. This market survey, apart from

estimating the demand supply chain and present players and future demands, will also highlight how bamboo products will have to be positioned and the market entry strategy thereby indicating pricing, supply position and branding. This project based activity would be done by the NBM directly through a suitable Agency to be identified, after floating tenders and assistance will be 100%.

7. Monitoring and Evaluation

- 7.1. There shall be continuous in-house Monitoring by the BDA / Forest Development Agencies (FDA) and third party independent evaluation as approved by the National Steering Committee. A detailed peer review of the progress achieved under the Mission will be made by the Department of Agriculture & Cooperation towards end of 2007. The States would be responsible for preparing quarterly progress reports for the National Bamboo Cell aggregating the performance data and highlighting any problem areas requiring immediate management attention. The Format for this is given at **Annexure - 5**. The BDAs would be required to prepare a comprehensive report before the detailed peer review. A Format devised for Impact Assessment along with the specific indicators, which need to be monitored is given at **Annexure - 6**.

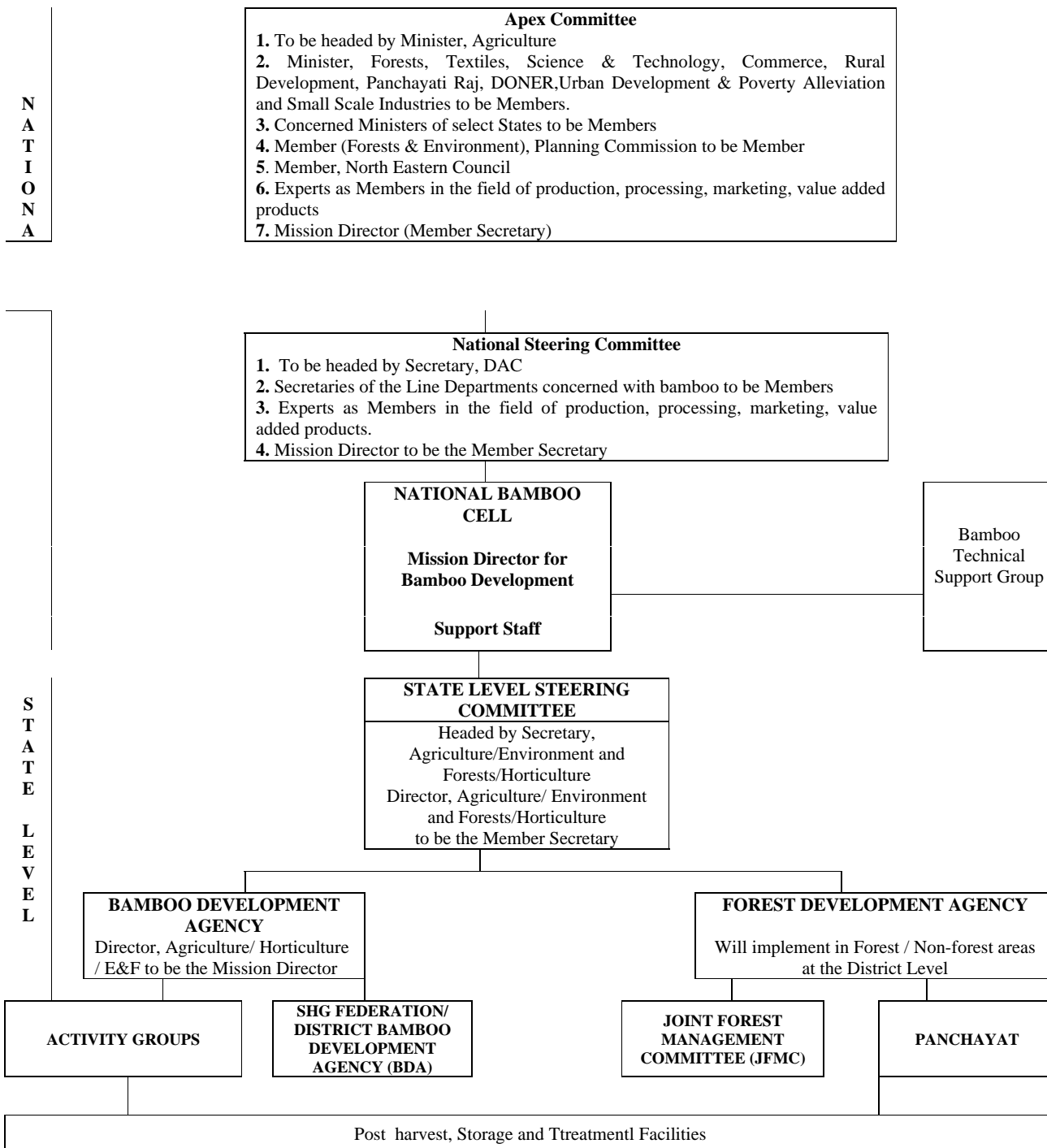
8. OVERALL TARGETS UNDER NATIONAL BAMBOO MISSION

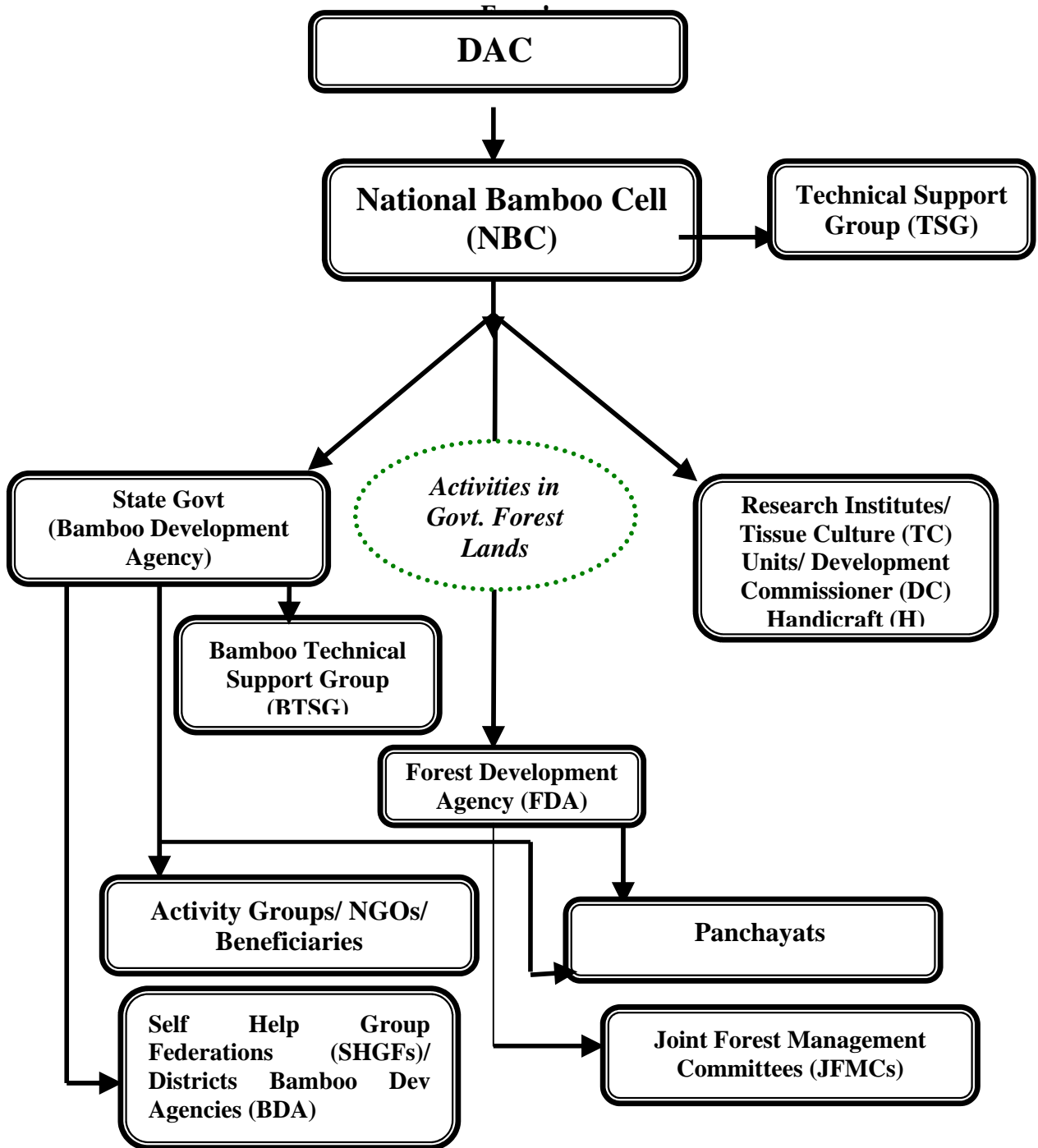
- 8.1. Based on the activities carried out under the provisions of the National Bamboo Mission and depending upon the continuance of the NBM beyond the X Plan period, after the detailed peer review to be carried out towards the end of 2007, the following are the broad overall Targets sought to be achieved

S.No	Programmes	X Plan	XI Plan	Total
1.	Area Expansion			
	Forest Area	16,000 ha.	72,000 ha.	88,000 ha.
	Non-Forest Area	16,000 ha.	72,000 ha.	88,000 ha.
2.	Nurseries - Centralized	160	185	345
	Kisan	50	30	80
	Mahila	50	30	80
3.	Improvement of Existing Stock	7,500 ha.	28,500 ha.	36,000 ha.
4.	Tissue Culture Units	1 nos	2 nos	3 nos.
5.	Bamboo Bazaars	71 nos.	124 nos.	195 nos.
6.	Retail Outlets (Show-Rooms) in 10 Metropolitan cities	3 nos	7 nos	10 nos

Annexure - 1

INDICATIVE STRUCTURE OF NBM





Norms of Assistance for programmes under National Bamboo Mission

Sl. No.	Programme	Estimated Cost	Revised pattern of assistance
A	Research & Development		
1.	Research on:		
	a. Harvesting & Sustainable Development	Project based	100% to Public/Private Sector Institutes
	b. Developing new Bamboo Agro forestry techniques	-do-	-do-
	c. Bamboo & Livelihood	-do-	-do-
B	Plantation Development		
1.	Planting Material (Forest Area)		
	C. Centralized Nurseries		
	i) Public Sector (0.25 ha)	2.73 lakhs	100% assistance subject to a maximum @ Rs. 2.73 lakhs per Nursery.
	ii) Private Sector (0.25 ha)	2.73 lakhs	25% of cost subject to a maximum of Rs. 68,000 each as credit linked back ended subsidy.
	D. Nurseries in Private Sector		
	i) Kisan Nurseries (0.10 ha)	Rs. 26,000/- per unit	25% of cost subject to a maximum of Rs. 6,500/- per Nursery.
	ii) Mahila Nurseries (0.10 ha)	Rs. 26,000/- per unit	25% of cost subject to a maximum of Rs. 6,500/- per Nursery.
2	Planting Material (Non-Forest Area)		
	C. Centralized Nurseries		
	i) Public Sector (0.25 ha)	2.73 lakhs	100% assistance for subject to a maximum @ Rs. 2.73 lakhs per Nursery.
	ii) Private Sector (0.25 ha)	2.73 lakhs	25% of cost subject to Rs. 68,000 each as credit linked back ended subsidy
	D. Nurseries in Private Sector		
	i) Kisan Nurseries (0.10 ha)	Rs. 26,000/- per unit.	25% of cost subject to a maximum of Rs. 6,500/- per Nursery.
	ii) Mahila Nurseries (0.10 ha)	Rs. 26,000/- per unit.	25% of cost subject to a maximum of Rs. 6,500/- per Nursery.
3	Funds for Certification of Planting	Project based.	100% assistance to

Sl. No.	Programme	Estimated Cost	Revised pattern of assistance
	Material		Public/Private Sector Institutes.
4	a. Tissue Culture Units in Public Sector	Rs. 21.00 lakhs per TC unit	100% assistance to PSUs, maximum of Rs. 21.00 lakh.
	b. Tissue Culture Units in Private Sector	Rs. 21.00 lakhs per TC unit	50% assistance subject to a maximum of Rs. 10.50 lakhs as credit linked back ended subsidy at par with Technology Mission for the Development of North-Eastern Region(TMNE)
5	Area Expansion (Captive Plantation)		
	a) Forest Area through JFMCs	Rs. 25,000/ha	100% assistance in two equal installments. (50:50)
	b) Non Forest Area through NGOs, SHGs, Individual Farmers, Farm Associations	Rs. 16,000/ha	50% of cost subject to a maximum of Rs. 8,000 per ha subject to the limit 4 ha per /beneficiary.
6	Improvement of Existing Stock	Rs. 8000/ha	100% assistance subject to the limit 2 ha per beneficiary for non-forest area.
7	Technology Transfer & HRD		
	a. Training of Farmers/ epreneurs	Project Based	Rs. 1520/- per participant for within State; Rs. 2500/- each outside State of seven days.
	b. Training of Field Functionaries	Project Based	Rs. 8000/- per participant for a period of seven days.
	c. Demonstration of Plantation Technology	Project Based	50% of cost subject to a maximum of Rs. 10,000/ha. for a maximum area of 0.50 ha per beneficiary.
	d. Workshops/ Seminars/Training	Project Based	100% assistance.
	i) International Level	Project Based	100% assistance subject to a maximum of Rs.40 lakhs.
	ii) National Level	-do-	100% assistance subject to a maximum of Rs.5.00 lakh per event of two days.

Sl. No.	Programme	Estimated Cost	Revised pattern of assistance
	iii) State Level	-do-	100% assistance subject to a maximum of Rs.3.00 lakh per event of two days.
	iv) District Level	-do-	100% assistance subject to a maximum of Rs.1.00 lakh per event of two days.
8	Pest and Disease Management At the Plantation Level	Rs. 400/ha	50% of cost subject to a maximum of Rs. 200/- per beneficiary per ha to a limit of 2 ha for non-forest area.
9.	Innovative Interventions	Project Based	100% assistance
10.	Post harvest storage and treatment facilities	Project based	100% assistance subject to maximum of Rs.20 lakh per unit
11	Irrigation		
	Micro-Irrigation	Rs.40,000/ha	50% of cost subject to a maximum of Rs. 20000/- per ha to a limit of 4 ha. per beneficiary.
C.	Handicrafts, Bamboo Marketing and Exports		
1.	Bamboo Wholesale & Retail Markets		
	a. Bamboo Wholesale & Retail Markets near Villages	Rs.16.00 lakhs per unit	25% of cost subject to a maximum of Rs. 4.00 lakh for general areas and 33.33% of cost subject to a maximum of Rs. 5.33 lakh for Hilly/Tribal area.
	b. Bamboo Bazars	Rs. 27.00 lakhs per unit	25% of cost subject to a maximum of Rs. 6.75 lakh for general areas and 33.33% of cost subject to a maximum of Rs. 9.00 lakh for Hilly/Tribal area.
	c. Retail Outlets (Showrooms)	Rs. 40.00 lakhs per unit ⁴¹	25% of cost subject to a maximum of Rs. 10.00 lakh for general areas and 33.33% of cost subject to a maximum of

Sl. No.	Programme	Estimated Cost	Revised pattern of assistance
			Rs. 13.33 lakh for Hilly/Tribal area.
	d. Innovative interventions	Project Based	100% assistance
2.	Participation in Domestic Trade Fairs	Project Based	75% of cost (Rs.3.75 lakh) for an event of 2 days @ Rs.5 lakh per event.
3.	Participation in International Trade Fairs	-do-	75% of cost (Rs.7.5 lakh) for an event of 5 days @ Rs.10.00 lakh per event.
4.	Conducting of Market Surveys, etc.	-do-	100% of cost.
D.	Implementation Monitoring Mechanism		
1	National Bamboo Cell		
	a. Equipments, hire/ purchase of vehicles, consumables and administration		
	b. Evaluation and Monitoring	Project Based	100% of cost
	c. Bamboo Technical Support Group	-do-	100% of cost for engaging consultancy for specified task in specified period.
	d. Coloured Brochures and Leaflets	-do-	100% of cost.
	e. Promotional campaigns through Electronic/ Audio-visual Media/ Newspapers	-do-	100% of cost.
	f. Database Generation & Management (Information, Web Based Database)	-do-	100% of cost to Central / State level institution/ ICAR / ICFRE etc.
2	State Implementation Bodies	-do-	
	Project Report Preparation, Consultancy.		Up to 1.5% of the project cost.

Planting Scheme for different species of Bamboo

Selected Species	Plant Spacing (m)		Total Plants per ha	Mortality @ 25%	Total plants per hectare
	In Line	Between lines			
<i>Bambusa tulda</i>	5	6	333	83	416
<i>Bambusa balcooa</i>	5	6	333	83	416
<i>Dendrocalamus hamiltoni</i>	5	6	333	83	416
<i>Melocanna baccifera</i>	4	6	417	104	521
<i>Dendrocalamus giganteus</i>	6	7	238	60	298
<i>Dendrocalamus asper</i>	6	7	238	60	298
<i>Bambusa nutans</i>	5	6	333	83	416
<i>Bambusa bambos</i>	5	5.5	400	100	500
<i>Dendrocalamus strictus</i>	4	6	417	104	521
<i>Ochlandra travancoria</i>	4	5	420	105	525

FORMAT FOR MONITORING AND EVALUATION OF MISSION TARGETS

STATE: _____

YEAR 200__ - 200__(1st/ 2nd/ 3rd/ 4th Quarter)

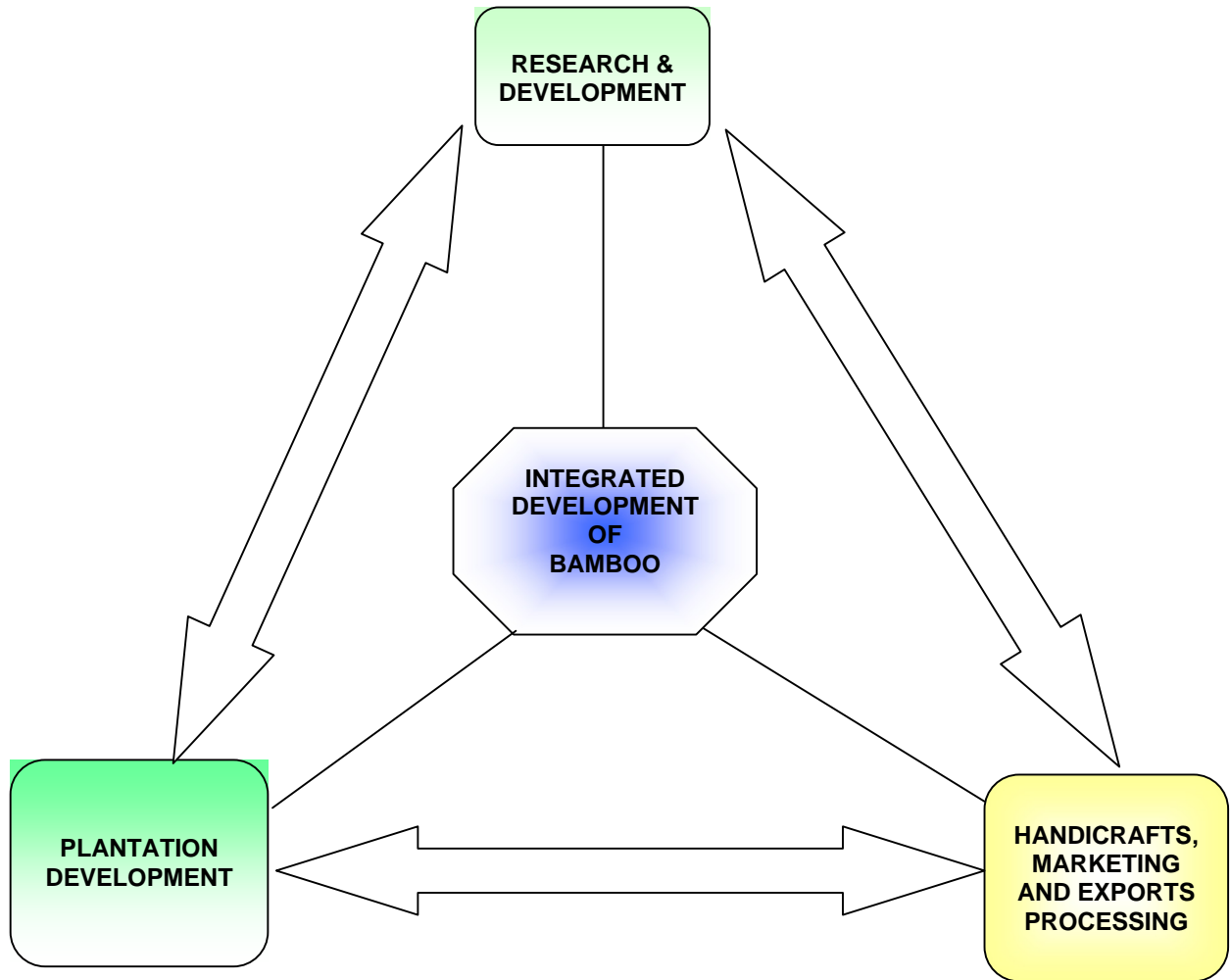
Sl.	Components	Targets Proposed		Targets Achieved		Shortfall (if any)	
		Phy	Fin (in Rs. Lakh)	Phy	Fin (in Rs. Lakh)	Phy	Fin (in Rs. Lakh)
1.	Centralized Nurseries in public sector (in nos.)						
2.	Centralized Nurseries in private sector (in nos.)						
3.	Kisan Nurseries in public sector (in nos.)						
4.	Kisan Nurseries in private sector (in nos.)						
5.	Mahila Nurseries in public sector (in nos.)						
6.	Mahila Nurseries in private sector (in nos.)						
7.	Tissue Culture units in public sector (in nos.)						
8.	Tissue Culture units in private sector (in nos.)						
9.	Certification of planting material (in nos.)						
10.	Plantation in forest areas (in ha.)						
11.	Plantation in non-forest areas (in ha.)						
12.	Improvement of existing stock (in ha.)						
13.	Bamboo Flowering Management						
14.	Training of farmers (in nos.)						

15.	Training of field functionaries (in nos.)						
16.	Training of Entrepreneurs (in nos.)						
17.	Demonstration of Technology (in nos.)						
18.	Workshop/Seminars at: State Level (in nos.)						
	District Level (in nos.)						
19.	Pest and Disease Management (in ha.)						
20.	Micro-Irrigation (in ha.)						
21.	Village-level Micro-processing units (in nos.)						
22.	Cluster Facilitation Centres (in nos.)						
23.	Assistance to primary processing units (in nos.)						
24.	Small Machines and Tools Development (in nos.)						
25.	Innovation Interventions, if any (in nos.)						
26.	Bamboo Wholesale and Retail Markets near Village level Micro-processing units (in nos.)						
27.	Bamboo Bazaars near CFCs (in nos.)						
28.	Showroom (Retail Outlets) [in nos.]						
29.	Consultancy Services						
30.	Evaluation and Monitoring						
	T O T A L						

FORMAT FOR MONITORING AND EVALUATING JFMCs/SHGs

SHG Mobilization (for Nursery, plantation and primary processing and marketing)		
1	Number of JFMCs under implementation	
2	Number of SHGs formed;	
3	Total membership of SHGs – gender segregated	
4	Number of beneficiaries under plantation in the non-forest sector	
5	No. of groups that have started job work at the village level microprocessors and in the clusters	
6	Number of groups/individuals that have set up primary processing units	
7	Number of participants that have taken part in both National and International Trade Fairs and their response	
8	Number of participants in various trainings and their spread effect.	
Mini and Micro-Enterprise Development		
1	No. of activity groups formed;	
2	No. and type of demonstrations;	
3	No. of individuals/groups accessing micro-enterprise loans (by activity); various purposes like nursery activities, plantation, primary processing	
4	No. of SMEs/ individuals obtaining loan for establishing forward and backward linkages.	

**CENTRALLY SPONSORED SCHEME OF
NATIONAL BAMBOO MISSION**



DEPARTMENT OF AGRICULTURE & COOPERATION
MINISTRY OF AGRICULTURE,
GOVERNMENT OF INDIA
NEW DELHI

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