प्रति,

वनमंडलाधिकारी,
वनमंडल.....(म.प्र.)

विषयः– कृषि क्षेत्र में बांस पौधा रोपण हेतु सब्सिडी प्राप्त करने के लिये आवेदन।

––00––

मैं अधोहस्ताक्षरकर्ता, बांस की खेती करना चाहता हूँ। मेरे संबंध में जानकारी निम्नानुसार है –

1. कृषक का नाम –.....
2. पिता/पति का नाम –.....
3. आधार कार्ड नं. (छायाप्रति संलग्न करें)
4. मोबाईल नम्बर, यदि हो, तो –.....
5. श्रेणी (√ निशान लगाये) –

अनु.जाति	अनु. जनजाति	अन्य पिछड़ा वर्ग	सामान्य

6. पूरा पता (ग्राम, तहसील, विकासखण्ड एवं जिला) –.....
7. वनमंडल/वनवृत्त –.....
8. वन रेंज –.....
9. पटवारी हल्का नम्बर –.....
10. खसरा क्रमांक एवं रकबा (छायाप्रति संलग्न करें) –.....
11. **बैंक खाते का विवरण** –

    बचत खाता क्रमांक –.....

    बैंक का नाम –.....

    आई.एफ.एस.सी.कोड –.....

    (बैंक पासबुक के प्रथम पृष्ठ की छायाप्रति संलग्न करें)
12. रोपित किये जाने वाले पौधों की संख्या (लक्ष्य) (बांस रोपण अंतराल (5x5 मी.)/(4x4 मी.)/(3x3 मी.)/(3x4 मी.) /(4x5 मी) /अथवा अधिक अंतराल)

कृपया मेरा Bamboo Grower के रूप में पंजीयन करवा कर पौध रोपण की अनुमति प्रदान करें। मैं मध्यप्रदेश राज्य बांस मिशन द्वारा मान्य नर्सरी/प्रयोगशाला से ही पौधे क्रय कर पौध रोपण करूंगा। मुझे ज्ञात है कि केन्द्र/राज्य शासन से स्वीकृत बजट के अनुसार अनुदान प्राप्त होने पर ही सब्सिडी प्राप्त होगी।

हस्ताक्षर –.....

नाम –.....

OPERATIONAL GUIDELINES OF NATIONAL BAMBOO MISSION (2025)

Contents

OPERATIONAL GUIDELINES OF NATIONAL BAMBOO MISSION (2024)

1. Introduction

1.1 Bamboo is vitally important from ecological, commercial, and socio-economic perspectives. It holds a unique position in the plant kingdom due to its distribution, diversity, and numerous uses in the tropics and subtropics. With over 1,500 documented applications, bamboo is extensively used in paper and rayon-textile manufacturing, construction, architecture, engineering, handicrafts, food, and medicine. Environmentally, bamboo helps reduce air and water pollution, mitigate land degradation, sequester carbon, and combat climate change. In 2018, the global export value of bamboo commodities was USD 2.9 billion, projected to grow at a 5.0% CAGR from 2019 to 2025.

1.2 The National Bamboo Mission (NBM) was launched initially in 2006-07 as a Centrally Sponsored Scheme, focusing on establishing nurseries and bamboo plantations. However, its provisions for the bamboo value chain and value addition were limited. In 2014-15, NBM was subsumed under the Mission for Integrated Development of Horticulture (MIDH)

1.3 In 2017, the Government of India amended the Indian Forest Act, 1927, reclassifying bamboo so it is no longer considered as a tree. As a result, bamboo grown outside forests is not treated as forest produce, allowing farmers to cultivate, harvest, and transport bamboo like any other agricultural crop.

1.4 Subsequently, the National Bamboo Mission (NBM) was restructured and re-launched in 2018-19 as a Centrally Sponsored Scheme (CSS) to harness the bamboo sector's potential and align with the reformed regulatory environment. It focuses on developing the entire bamboo value chain, linking growers with consumers through planting material, plantation, collection, aggregation, processing, marketing, MSMEs, skilled manpower, and brand-building initiatives in a cluster approach. This initiative promotes bamboo-based industries, value addition, and employment generation in rural areas, particularly in the North Eastern Region of India. The plantation component is limited to non-forest government land and private farmers' fields.

1.5 In 2019, India's bamboo and rattan industry was valued at Rs. 28,005 crores. During 2018-19, bamboo exports were Rs. 720.01 crores, and imports were Rs. 829.84 crores. By 2023-24, exports increased to Rs. 1,163.34 crores, and imports decreased to Rs. 530.50 crores, resulting in a trade surplus of Rs. 632.84 crores [tradestat].

2. **Objectives of NBM**

i. To increase the area under bamboo on non-forest lands, including government and private lands, to supplement farm income, enhance resilience to climate change, and ensure the availability of quality raw material for bamboo-based industries. Bamboo plantations will be promoted primarily on farmers' fields, homesteads, community land, arable wasteland, along irrigation canals, water bodies, and CFR/IFR land under the Forest Rights Act (FRA) 2006 etc.

ii. To improve post-harvest management by establishing innovative primary processing units near bamboo production areas, including primary treatment and seasoning plants, preservation technologies, and market infrastructure.

iii. To promote product development in line with market demand by supporting Research and Development (R&D), entrepreneurship, and business models at cooperative, micro, small, and medium levels, thereby feeding into larger industries.

iv. To strengthen and modernize the bamboo-based industry in India by supporting the aggregation of farmers and entrepreneurs into farmer groups, Farmers Producer Organizations (FPOs), Farmers Producer Companies (FPCs), and Self Help Groups (SHGs, and to facilitate their tie-ups with market aggregators and financial institutions.

v. To promote skill development, capacity building, and awareness generation for the development of the bamboo sector, from production to market demand.

vi. To promote entrepreneurship and innovation in the bamboo sector.

vii. To realign efforts to reduce dependency on the import of bamboo and bamboo products by improving productivity and the suitability of domestic raw materials for industry, thereby aiming to enhance the incomes of primary producers.

3. Strategy

i) The Mission focuses on the development of bamboo in states where it has social, commercial, and economic advantages, particularly in the North Eastern region. Presently, the scheme is being implemented in 23 states and 1 union territory. The implementing states are Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Madhya Pradesh, Maharashtra, Chhattisgarh, Odisha, Karnataka, Uttarakhand, Bihar, Jharkhand, Andhra Pradesh, Telangana, Gujarat, Tamil Nadu,

Kerala, Uttar Pradesh, Himachal Pradesh, and Jammu & Kashmir. Other states with potential and interest shall be considered for inclusion under the scheme.

ii) Production of genetically superior planting material of bamboo species with commercial and industrial demand.

iii) Adoption of an end-to-end solution in the bamboo sector, i.e., a complete value chain approach starting from bamboo growers to consumers. Emphasis is placed not only on production and productivity enhancement and good agronomic practices but also on preservation, processing, product development, and marketing in an integrated manner, adopting a cluster approach involving, among others, Farmers Producers Organizations, Cooperatives, SHGs, Government Agencies/institutes, bamboo-based enterprises, and industrial bodies/Federations.

v) Besides product development, emphasis is given to higher economic realization for growers/producers through initiatives on export promotion and benefits of the domestic market through market infrastructure, e-trading, etc.

vi) Capacity building of officials, field functionaries, entrepreneurs, and farmers through skill development and training will be emphasized.

vii) Focus given to Research & Development (R&D) to increase the production and productivity of bamboo by identifying superior clones, improving processing technology, developing new products, and improving tools and machinery, etc through State Govts, BTSGs and reputed National/State Level Institutes.

viii) Adopt a coordinated approach and promote partnership, convergence, and synergy among R&D, processing, and marketing agencies in both the public and private sectors, at the national, regional, state, and sub-state levels.

ix) Support capacity-building and Human Resource Development at all levels, including graduation & PG courses at Colleges, Universities, ITIs, and Polytechnics, as appropriate.

4. Mission Structure

I. National Level

a. General Council: The General Council (GC), chaired by the Secretary (DA&DW) at the national level, guides and oversees the implementation of the National Bamboo Mission (NBM), ensuring effective

coordination and strategic decision-making. The GC shall recommend for modifications or amendments to the operational guidelines, subject to approval by the Minister for Agriculture and Farmers Welfare. The composition of GC will be as follows:

Secretary (DA&FW)	Chairperson
Secretary (DARE) & DG (ICAR)	Member
Secretary MoEFCC & Director General of Forests	Member
Secretary, M/o DoNER	Member
Secretary, M/o RD	Member
AS&FA, DA&FW	Member
Adviser (Agriculture), NITI Aayog	Member
Mission Director (NBM)	Member Secretary

b. Executive Committee: Executive Committee (EC) chaired by National Mission Director of NBM will oversee activities of the Mission and shall approve Action Plans/ projects of SBMs, BTSGs and NLAs. The Mission Director shall be an officer in the level of Joint Secretary or equivalent in the DA&FW. The EC will comprise of the following;

National Mission Director (NBM)	Chairperson
Representative of MoEFCC (Director/ DS level)	Member
Representative of M/o DoNER	Member
Representative of M/o MSME	Member
Representative of M/o RD	Member
Director (IFD), DA&FW	Member
Director / DC/DS (MIDH/KY cell)	Member
2 Experts members from competent institutes [Production, Processing, Designing & Product development, Industrial Promotion and Marketing]	Member
ADC/Director/Deputy Commissioner -NBM	Member Secretary

The Executive Committee (EC) has the authority to reallocate resources across states and components, approve projects/ Action Plans based on the operational guidelines, and sanction special interventions for emergent or unforeseen requirements. Non-official members have three-year tenure from the date of their nomination. The EC is also empowered to empanel National/Regional level Agencies and constitute Sub-Committees (SC) or advisory groups, which deliberate and advise on bamboo propagation, cultivation,

and industry rejuvenation. Their focus includes small enterprises and cottage industries, as well as larger commercial units, playing a significant role in both domestic and export markets. Innovations in product development, processes, indigenous tools, equipment, market research, and policy advice are essential to enhancing the competitiveness of the bamboo-based industry.

c. National Bamboo Mission Cell: The National Bamboo Mission Cell (NBMC) headed by the Mission Director, NBM at the DA&FW, Govt. of India will administer the regular implementation of the scheme. The scrutiny of Annual Action Plan and project proposals will be done by the NBMC. A Project Management Unit with appropriately qualified/experienced consultants/technical Officers/ Staff will be engaged to provide technical service on contract basis for assisting the Mission Director, in addition to the regular officers of DA&FW. Indicative composition of NBMC is given in the **Annexure II.** Person who would like to work on pro bono basis/ internship also may exclusively be engaged in the NBMC.

d. Bamboo Technical Support Group (BTSG)

National Level Agencies (NLAs) identified as Bamboo Technical Support Groups (BTSGs) will provide scientific and technical support to the National Bamboo Mission (NBM). Existing BTSGs such as the North East Cane and Bamboo Development Council (NECBDC, Guwahati), Indian Council of Forest Research & Education (ICFRE, Dehradun), and Kerala Forest Research Institute (KFRI, Peechi, Kerala) will continue their roles. Other competent NLAs may be empanelled to address specific issues or implement projects as approved by the Executive Committee (EC). Service providers may also be engaged for technical services as per the Terms of Reference approved by the EC. These BTSGs/NLAs to submit their Annual Action Plans/Projects to the NBM Cell for funding. Upon EC approval, these plans may receive funding, and progress must be reported to the NBM Cell.

Roles and Functions of BTSGs:

1. Frequently visit partner states to provide guidance on policy, organizational, and technical matters.
2. Recommend suitable bamboo species for different regions or end users.
3. Facilitate cross-sectoral interactions for innovation.
4. Compile materials and organize regional workshops on bamboo plantations, handicrafts, product development, marketing, and exports. Prepare annual calendars for capacity building, promotional events, workshops, and seminars in consultation with SBMs/SBDAs.

5. Conduct R&D and studies on various aspects of bamboo sector development.
6. Assist states in organizing capacity-building programs.
7. Undertake publicity campaigns to promote Mission objectives.
8. Document and share case studies and success stories.
9. Conduct specialized training programs at the regional level.
10. Network with stakeholders and institutes/organizations/agencies in India and abroad to enhance involvement in the bamboo value chain ecosystem.
11. Organize and participate in national and international events related to the bamboo sector on behalf of NBM.
12. Support NBM and SBMs in technical & scientific matters.

II. State Level

a. State Level Executive Committee (SLEC)

State Governments will identify a department to anchor the State Bamboo Mission (SBM) and nominate a Mission Director. The State Level Executive Committee (SLEC), led by the Chief Secretary/APC or Principal Secretary of the State Nodal Department, includes representatives from various state departments like Agriculture, Industries, Forests, State Agricultural Universities (SAUs), Institutes under the Indian Council of Agricultural Research (ICAR), and Growers' Associations/FPOs. The SLEC guides policy and mission implementation in the state, approves annual action plans, and communicates them to the Executive Council of the National Bamboo Mission (NBM) for approval and fund release. It ensures effective implementation, periodic monitoring, and impact assessment. The suggested composition of SLEC is as follows:

Chief Secretary/ Agriculture Production Commissioner/ Principal Secretary of Nodal Department	Chairman
Secretary/ Director level: Agriculture, Environment & Forests, Industries, Finance, Science and Technology, Rural Development, Tribal Affairs	Members
Nominee of DA&FW, Ministry of Agriculture, Govt. of India	Members
Two experts* (Production, Processing, Designing &	Members

Product development, Industrial Promotion and Marketing)	
State Mission Director	Member Secretary

*The tenure of the non official members will be for 3 years from the date of nomination.

b. State Bamboo Mission

Each State will establish a State Bamboo Mission (SBM) led by a nominated Mission Director. The program will operate through existing employees of the anchoring Department and related Departments, SAUs, and ICAR Institutes. Contractual staff may be engaged at District and State levels under the Project Management Team (PMT) provisions. Dedicated PMTs at District, State, and National levels will ensure effective coordination and synergy across the value chain. A robust monitoring mechanism will be in place for periodic reporting using web applications and space technologies. Administrative and contingency expenses, concurrent and impact evaluation, and organization of EC meetings will be funded from the project management cost (see Annexure I).

SBMs will focus on establishing primary and secondary processing units near bamboo production areas, converging into larger units and industries. This approach aims to reduce wastage, promote efficiency, and develop expertise, thereby lowering production costs. District or block-level clusters and common facilitation/technology centers will be developed. The SBM will oversee the implementation and overall coordination of the NBM within the State.

Functions of the State Level Agency:

1. Conduct baseline surveys and feasibility studies to assess bamboo production, potential, and demand, and provide tailored assistance. Adopt a cluster-based market approach for linking farmers, FPOs, FPCs, cooperatives, SHGs, and federated cooperatives to markets, and promote bamboo cluster formation for marketing products.
2. Collaborate with other projects and schemes like NRLM, MGNREGS, SFURTI, and MSME for bamboo sector development.
3. Establish Bamboo Economic Zones based on hinterland and industry needs.
4. Prepare perspective and annual State Level Action Plans in alignment with Mission goals, coordinating with BTSGs, and oversee implementation.
5. Manage funds from the State Government and other sources, maintaining proper accounts and submitting utilization certificates.

6. Provide periodic progress reports to SLEC for onward submission to the NBM (DA&FW), Ministry of Agriculture.
7. Disburse funds to implementing organizations and monitor, review, and oversee program implementation.
8. Support Mission programs in the State through various entities like Farmers Cooperative Societies, NGOs, growers, entrepreneurs, self-help groups, and State institutions.
9. Organize workshops, seminars, skill development/training programs, and facilitate participation in exhibitions/trade fairs for all interest groups as per the approved action plan.

The State Bamboo Mission (SBM) will focus on establishing primary processing units near bamboo production areas to specialize in pre-product processing. These units will then converge into larger secondary processing units, eventually forming industries, including MSMEs and high-end sectors, to create finished products. This approach aims to reduce wastage, promote efficiency, and develop expertise, leading to lower production costs. District or block-level clusters and common facilitation/technology centers with appropriate machinery will be developed.

iii. District Level

The State Bamboo Mission will form a District Level Agency comprising officials from Department of Industries, Agriculture/Horticulture, Forest, Rural Development, and other relevant departments, along with Cooperatives, SHGs, and NGOs. This Agency will compile and send all proposals to the SBM for appraisal and oversee all activities at the district level. The District Industries Centre (DIC) Planning Committee and Panchayati Raj Institutions (PRI) will be integrated based on their expertise and infrastructure. The district-level officer of the nodal department will serve as the Member Secretary. Coordination across different levels will ensure no duplication while approving district plans.

5. Convergence

The State Bamboo Mission (SBM) will collaborate with other departments and schemes to benefit the bamboo sector by sharing resources and coordinating efforts. This includes working with Central & State Institutes, departments, schemes, universities, industrial bodies, the private sector, and Panchayati Raj Institutions. Key coordination areas include NRLM, MGNREGS, SFURTI, MSME, KVIC, and CAMPA. Annual workshops will explore new convergence opportunities. SBM will empanel Technical Sub Groups from various bodies and allocate atleast 5% of Annual Action Plan assistance to FPOs/FPCs.

SBM will work with stakeholders, public and private entities and industrial bodies for coordinated sector growth. Officers from key line departments will be empanelled at state and district levels to coordinate and monitor the scheme, serving as Bamboo Extension Officers to ensure efficient implementation.

6. Preparation of Action Plan and Approvals

States will prepare a comprehensive 5-year Action Plan for the National Bamboo Mission (NBM), detailing short, medium, and long-term goals for cluster formation, cultivation, and industry establishment. The plan can be made with the help of empanelled TSGs or competent public/private agencies as per extant rules with the approval of SLEC. The plan should use a bottom-up approach, involving FPOs/FPCs, TSGs, scientific/technical institutes, and industrial bodies.

Annual Action Plan (AAP): Based on the comprehensive plan, the AAP will reflect short and long-term goals, addressing all aspects of bamboo development, including nursery management, plantation, postharvest storage, product development, production, marketing, and infrastructure. Activities will focus on clusters, identifying and mapping potential production regions. AAP shall be as per the cost norms given at Annexure I**.**

Krishonnati Yojana (KY): The AAP will be part of the consolidated KY Action Plan. SBMs shall coordinate with the State Nodal Department/APC of KY for timely submission and approval of the AAP of NBM as per the guidelines of consolidated AAP of KY. If the SLSC for KY is unavailable, the AAP may be submitted to the SLEC with prior intimation to the Nodal Department/APC. SLEC shall be allowed to revise component-wise activities of the SLSC approved AAP without enhancing the total outlay of the approved AAP.

R&D Activities: Financial support for R&D, extension, capacity building and specific projects etc will be given directly to the BTSGs and national/regional institutes upon NBM approval.

7. Monitoring and Evaluation

Monitoring & Evaluation (M&E) will be an integral part of programme implementation, focusing on both physical/financial achievements and socio-economic and environmental impacts. A two-tier M&E system will be adopted: the Executive Committee (EC) at the National Level and the State Level Executive Committee (SLEC) at the State level. In addition, third-party independent evaluations, as approved by the EC, will be conducted, ensuring feedback from farmers, farmers groups, artisans, women, etc.

The SBM should publish the contact details of nodal officers at the State and District levels to facilitate beneficiary applications, verification, selection, and grievance redressal. An online portal should be established for beneficiary registration, a directory of bamboo sector stakeholders, tracking AAP, and progress monitoring with geo-tagging. This portal must be simple, well-maintained, and regularly updated, integrating with the central MIS system. Geo-tagging of all infrastructure created under NBM is

mandatory. The State Bamboo Missions should ensure transparency in the selection of beneficiaries by adopting online registration. The monitoring mechanism will follow guidelines framed by the EC, subject to modifications as needed.

8. Funding Pattern

The funding pattern under NBM is in the ratio of 60:40 between Centre and State Govt. for all States excepting NE & Hilly states, where it would be 90:10 and 100% in case of Union Territories/ R&D Institutes/ Bamboo Technology Support Groups (BTSGs) and National Level Agencies. The pattern of assistance of major activities is given in Annexure I. If funds are released by NBM (Headquarter) directly to any Central Institution for any specific project / intervention the funding will be 100% central share.

9. Mission Intervention

The Mission will be demand-driven and need-based, utilizing technologies like ICT, Remote Sensing, and GIS for planning and monitoring. Interventions will vary regionally, focusing on bamboo plantation using quality planting materials in clusters, developing hi-tech nurseries, and strengthening tissue culture labs. It will pave way for complete value chain development through backward and forward linkages, infrastructure for treatment, processing, product development, and marketing. Detailed components and cost norms are in Annexure I.

Marginalized, tribal, and landless applicants facing bank loan difficulties may be included through BTSGs or empanelled agencies based on submitted DPRs. FRA patta ST beneficiaries' contributions may be restricted to 10% as per guidelines of PM Janjatiya Unnati Gram Abhiyan/Dharti Aaba Janjatiya Gram Utkarsh Abhiyan.

10. Support to North Eastern States:

The North Eastern States are rich in bamboo resources, but their integration into the value chain is weak. Despite being economically significant, bamboo processing and marketing in the region are highly unorganized. Focused policy reforms and infrastructure development by Central and State Governments are needed to market bamboo resources effectively within and outside the region, benefiting the community. Revitalizing the logistics system, including road, rail, and waterways, is essential for efficient bamboo transport. An additional 10% cost norm will apply to NER States for all NBM components.

11. Credit Linked Back Ended Subsidy (CLBS)

The National Bamboo Mission (NBM) has issued guidelines for Credit Linked Back Ended Subsidy (CLBS) applicable to private individual/group beneficiaries for the capital intensive components. Subsidy for bamboo plantation and related activities may not require CLBS. SBM will monitor and evaluate to ensure proper utilization of government assistance.

Bamboo sector development includes activities qualifying for Priority Sector Lending (PSL) such as agriculture, post-harvest management, MSMEs, social infrastructure creation, and benefits for weaker sections. Therefore, SBM should coordinate with the SLBC/banking system for hassle-free institutional financing for farmers, entrepreneurs, and artisans.

12. Plantation Development

This component primarily aims at expansion of area under bamboo plantation, both in non-forest Government land as well as in private farmlands, community lands, cultivable wastelands for commercial utilization and remunerative returns to farmers. The main objective of this component is to increase production and productivity of commercially important bamboo species for boosting domestic supply to industry and reduce dependence on imports. Commercially important bamboo species for plantation under the mission, as identified after discussion with stakeholders are Bambusa tulda, B.bambos, B. balcooa, B.cacharensis, B.polymorpha, B.nutans, Dendrocalamus asper, D.hamiltonii, Thyrostachys oliverii, and Melocanna baccifera Besides, States may encourage plantation of indigenous species as per choice of farmers and industrial importance.

The overall goal of this component is to supply quality raw bamboo of appropriate species to industry, ensure employment generation and strengthen rural economy. Hence it is important that plantings are done in conjunction with projected demand in the vicinity. Development Institutes of Ministry of MSME, Industries and Agriculture Departments of States, etc should work in tandem so that the farmers/clusters are appropriately identified and hand held.

12.1 Certified Planting Material

In order to ensure quality of planting material, suitable Certifying Agencies shall be identified by the respective SBM for each State in consultation with the concerned BTSG/ NLA. The guidelines for Accreditation of Bamboo Nurseries, Tissue Culture Laboratories and Certification of Quality Planting Material have been issued by the NBM for compliance by the SBMs and the agencies related to NBM. The BTSG also may be allowed to act as Pan India accreditation agency. The TC lab/Nursery accredited under the Guidelines of Department of Bio-Technology (DBT (NCS-TCP)) also may be considered to be recorded as accredited Nursery.

12.2 Bamboo Nursery

Bamboo Nurseries & Hi-tech Nurseries shall be established in public & private sector to raise vegetative or tissue culture saplings to meet the targets of quality planting material production. Superior germplasm should be resorted to ensure quality and productivity of Tissue culture raised planting material. Multiplication of superior clones of important bamboo species should also be scaled up. States must keep a vigil on incidences of bamboo flowering and make adequate arrangements for collection and utilization of the seeds which are a rare and precious commodity. These measures may be through Forest Departments, User Industries, Research Institutions, Universities, Farmer Groups, Self Help Groups, KVKs / NGOs and individual farmers.

Each nursery shall produce a minimum of 30,000 sapling/ seedlings per ha per year of commercially important species duly certified for its quality. Nursery should have own composting unit, proper source of certified seeds/propagule/ irrigation system and green house /shade/mist chamber. Accreditation of each Bamboo nursery by a competent agency/SBM is mandatory within two years of its establishment.

12.3 Hi-Tech Bamboo Nursery:

Each nursery shall produce a minimum of 50,000 nos of sapling/ seedlings per ha per year of commercially important species duly certified for its quality. Nursery should have own composting unit, drip irrigation system and green house /shade/mist chamber for temperature regulation. It should have its own tissue culture lab or tie up with accredited tissue culture lab. Accreditation of each Bamboo Hi-tech nursery by a competent agency/SBM is mandatory within two years of its establishment.

12.4 Tissue Culture Bamboo Nursery

For supply of quality planting material in large quantities, which is free from diseases and viruses, Tissue Culture Units shall be set up. Efforts will be made to set up these units in the ICFRE / ICAR institutes &other organisations in private/ public or cooperative sector. Tissue culture Units would be set up under the close supervision and technical support from ICFRE / ICAR or any competent agencies empanelled by the NBM or SBMs. Specification of the TC unit is as per the techno feasibility report of DBT (NCS-TCP) published in 2008 on pro-rata basis per million plantlets production. Accreditation of each Bamboo TC lab/nursery by a competent agency/SBM is mandatory within two years of its establishment.

12.5 Bamboo Plantation

Identifying land is crucial for new bamboo plantations. Satellite imagery from NESAC, SLUSI, NBSSLUP, and State Remote Sensing Agencies can help identify wastelands suitable for plantations, which should be verified on the ground. Contract farming, buy-back agreements with industry, and land leasing should be promoted for planting bamboo on private, community, cooperative, and wastelands with a network of

nurseries. To achieve economies of scale, priority should be given to Farmer Producer Organisations (FPOs), Farmer Producer Companies (FPCs), Cooperatives, Village Producers' Organizations (VPOs), and Self Help Groups (SHGs). States are advised to formulate policies for the long-term lease of public land for bamboo cultivation by these groups. All plantations must be geo-referenced/tagged. The spacing for block plantations is detailed in Annexure III.

Financial assistance for bamboo plantation up to 10 hectares will be provided to individual farmers. Bamboo Plantation of area up to 10 hectares each per member can be carried out by FPOs, FPCs, societies, SHGs, and farmers' groups. Certified planting material and proper agronomic practices must be ensured to maximize returns from bamboo and agricultural crops. Maintenance support in subsequent years will be linked to survival rates, with a minimum of 80% survival with replacement of deceased saplings for eligibility of full subsidy. Pro-rata maintenance subsidy may be given for survival rates above 50%, with the condition for replanting. Similar conditions apply to boundary plantations, where subsidies are linked to the number of saplings planted and survived.

Irrigating bamboo plantations, especially during summer, is essential for better yield. Assistance for micro-irrigation and fertigation for plantations under NBM can be availed under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) - Per Drop More Crop scheme. Plantation activities should be converged with MGNREGS wherever possible, with SBMs/BTSGs supporting scientific bamboo cultivation and ensuring sapling quality. Applicants may submit a soil testing report through the ‘Soil Health Card (SHC)’ module of the MoAFW.

13. Primary Processing and Aggregation

Bamboo faces threats from insects and fungi during growth, storage, and post-manufacture. Preventive and remedial measures are recommended including physical, chemical, and biological techniques with an integrated pest management approach. Raw bamboo which considered as non-durable can be processed/treated to last over 50 years. Pre- and post-harvest treatments to reduce damage and improve fire retardation are possible. Engineered bamboo products also resist biodegradation. Further research is needed for cost-effective protection against biodegradation and fire. Standards may be developed by CBRI and BIS.

After harvesting, bamboo must be stored properly in warehouses with suitable treatment to enhance durability. Establishing primary processing units near production areas reduces costs, minimizes waste, and improves economies. Micro and medium processing units can improve local livelihoods by upgrading traditional skills and introducing new ones

14. Promotion and Development of Infrastructure for Bamboo Market

Bamboo grown outside forest areas would need to be declared as an agricultural produce to facilitate its sale in regulated markets, including APMCs, in line with the model Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017. This allows for direct marketing, farmer-consumer markets, adhoc buyers, and inter-State trading. States are encouraged to implement the MoEF&CC directive for pan India transit permits for bamboo.

Tradable parameters for bamboo are notified for the e-National Agriculture Market (e-NAM), and States integrated with e-NAM should start marketing bamboo on this platform to ensure better returns for producers. Market information on various forms of bamboo and primary processed products need to be made available to farmers, allowing them to plan their activities in advance. The Directorate of Marketing and Inspection (DMI), DA&FW, and State Marketing Boards may provide information on prices and market arrivals. Rural haats, in conjunction with programs of the Ministry of Rural Development and DRDAs in States, shall be set up to enhance rural infrastructure and enable farmers to sell their produce directly to traders and industry.

15. Production, Development &Processing

The Production, Development, Processing and Common Facility Centre (CFC) of bamboo involve a comprehensive approach to ensure the efficient utilization and sustainable management of bamboo resources. The goal is to streamline the bamboo value chain, enhance efficiency, create a circular economy, and improve the livelihoods of those involved in the bamboo sector. Rehabilitation/ strengthening of existing units may also be considered after proper viability studies and rehab plan approved by the SLEC.

16. Research and Development

Research and development programs will focus on generating region-specific technologies & practices, considering agro-climatic and socio-economic conditions. Bamboo-based agroforestry systems include homesteads, block plantations, wide-row intercropping, windbreaks, and miscellaneous systems. R&D will be encouraged to enhance value chain efficiency and competitiveness. Emphasis will be on documenting and disseminating technologies from India and abroad. Demonstrations for best practices will be set up in Krishi Vigyan Kendras (KVKs) and on farms by State Governments/ Agricultural Universities/ Institutes, alongside post-harvest value addition protocols.

Collaboration with international organizations like the International Network for Bamboo and Rattan (INBAR) and the World Agroforestry Center (ICRAF) will be strengthened for the bamboo sector.

17. Extension, Education and Skill Development

Extensive Information, Education & Communication (IEC) campaigns are essential to raise awareness among farmers. These campaigns will include a complete package of agronomic practices tailored to industry requirements, enabling producer-industry links. Technology transfer through training, frontline demonstrations, publicity, and training of trainers are integral to the NBM. This program will focus on skill development and training for farmers, field workers, cooperatives, and entrepreneurs, ensuring the adoption of scientific measures for high-yield bamboo plantations and appropriate harvesting techniques. Both government and private sector, including NGOs, will carry out these activities in accordance with the National Skill Qualifications Framework (NSQF) and respective Sector Skill Councils.

18. Centre of Excellence (CoE) in Bamboo Technology

Centers of Excellence in Bamboo Technology may be established to serve as hubs for demonstration, training, and information dissemination. These centers will focus on modern and innovative technologies related to bamboo propagation, product design and manufacturing, tools and machinery, sector innovations, and marketing. By providing these services, the centers will support the development and growth of the bamboo industry.

19. Bamboo Market Research

While many recent market surveys focus on high-value bamboo products, there remains a significant gap in addressing the needs, requirements, and profitability of low and medium-value bamboo products. This is crucial since financial institutions and banks emphasize the marketability of products when appraising project proposals. Therefore, conducting a market survey specifically for bamboo products like toothpicks, spoon, fork, window blinds, cotton ear buds, and skewers, traditionally made from wood or plastic, is essential. This survey will estimate the demand-supply chain, current players, and future demands. It will also provide insights into positioning bamboo products, market entry strategies, pricing, supply, and branding. The project will be conducted by NBM/SBM/BTSGs or through an identified agency, with full assistance provided.

20. Incubation Centres

This component is drawn from a similar scheme by the Ministry of MSME, and it will follow the same norms and processes.

21. Role of Krishi Vigyan Kendra (KVK) & Other Agencies for capacity building

States should identify suitable ICAR-KVKs for providing training to farmers and other stakeholders. Model plots for demonstration purposes can be established through KVKs/SAUs. Training for farmers may also be conducted through Sector Skill Councils or other renowned Central or State Government

institutions, such as the National Institute of Design (NID) and the Bamboo and Cane Development Institute (BCDI), Agartala.

22. Export of bamboo based products

To promote bamboo-based products, especially handicrafts, the State Bamboo Mission shall periodically organize training and capacity-building sessions for entrepreneurs in collaboration with the Export Promotion Council concerned. The National Bamboo Mission (NBM) may review and recommend changes to the export and import policies of bamboo to the Directorate General of Foreign Trade (DGFT).

23. Aligning National Bamboo Mission (NBM) with National Mission on Sustainable Agriculture (NMSA)

1. *Climate Resilient Agriculture*

Climate change and seasonal variability significantly impact agriculture, causing losses to crops, horticulture, livestock, and fisheries. Strengthening community adaptive capacity and making production ecosystems climate resilient is crucial. The National Mission for Sustainable Agriculture (NMSA) under the NAPCC addresses food security, soil, water, and nutrient management challenges. The NICRA project identified 310 high-risk districts for climate change.

The Climate Resilient Agriculture (CRA) component of RKVY promotes resilience in 50,000 villages in these districts. The program, implemented through various schemes of Ministry of Agriculture & Farmers Welfar, will utilize a robust digital platform for planning, implementation, and resource management. The NBM Scheme will prioritize these CRA villages, ensuring adequate allocation in the Annual Action Plan.

2. Voluntary Carbon Market

The National Mission for Sustainable Agriculture (NMSA) employs strategies to make Indian agriculture resilient to climate change and sustain production increases. Promoting Voluntary Carbon Markets (VCM) in agriculture encourages sustainable use of resources and enhances resilience to climate risks. Introducing carbon markets to farmers supports eco-friendly practices and improves their financial stability through carbon credits. It's a vital step for sustainable agriculture and farmers' welfare.

The NBM scheme will support agencies in implementing carbon projects for farmers' benefits. Specific projects on carbon credits and methodology development by institutions like ICAR-CAFRI, SAUs, CAUs, CSIR, ICFRE, State Governments, and other organizations will be supported

3. Circular Economy

The Circular Economy (CE) integrates economic activity and environmental well-being sustainably by redesigning processes and recycling materials. CE supports sustainable, restorative, and climate-resilient agriculture by making production more regenerative and creating a diverse, resilient food system.

In agriculture, CE should be applied in domains based on resource availability, technology, demonstration scope, R&D potential, and past experiences in waste management. These domains include Waste to Bio-fuels, Waste to Energy (Power), Waste to bio/organic fertilizers, Waste to Biomaterials, In-situ Management of Crop Residues, and Water harvesting/Water Recycling. The NBM scheme will support specific projects in these domains through various institutes, organizations, and private partners.

4. Mission LiFE

Natural resources are the foundation for agricultural production, with the agriculture sector using a significant share of land, water, and biodiversity. The government is working to scale up sustainable agriculture practices to balance economic benefits with conserving natural resources. Achieving sustainability goals requires practices that increase farmer incomes, promote social equity, and ensure environmental management. Initiatives like Voluntary Carbon Market (VCM), Green Credit Program (GCP), and Payment for Ecosystem Services (PES) encourage sustainable farming. Mission LiFE (Lifestyle for Environment) promotes sustainable lifestyles by encouraging community behavioral changes toward eco-friendly actions. The NBM scheme supports Mission LiFE actions, making environmental protection and conservation a participative process.

Annexure I

Interventions with cost norms and funding pattern

Notes: (1) The cost norm shall be 10% additional to NER States.

(2) Credit Linked Back Ended Subsidy (CLBS) guidelines will be applicable to Private Individual/ Group Beneficiaries for components A to D except bamboo plantation activities etc. Credit linkage for projects upto Rs. 30 lakhs may be optional and subsidy would be released in two installments in TRA/Escrow/SRF accounts based on progress after the Joint inspection (SBM & Bank) report when found satisfactory.

(3) For marginalized/ Tribal and landless applicants who are facing difficulty in bank loan may be included in the scheme through BTSGs/empanelled agencies of NBM/SBM based on the DPR submitted by the agency to the SBM. Further, the subsidy for ST FRA beneficiaries shall be 90% as per the guideline of PM Janjatiya Unnat Gram Abhiyan/Dharti Aaba Janjatiya Gram Utkarsh Abhiyan.

Sl. No.	Activities	Indicative Cost limit (Rs. in lakh or as mentioned), 10% Additional to NER	Pattern of Assistance
A.	**Propagation & Cultivation**		
1	Bamboo Nursery both in public and by private sectors including strengthen of existing (project based)		
i.	Hi-tech(2 ha) Nursery	60 lakh	100% of cost to Govt. sector and 50% of cost to private sector. Each nursery will produce a minimum of 50,000 plants per hectare per year duly certified for its quality. Accreditation of each Hi Tech nursery is necessary within 18 months from the date of receipt of last installment
ii.	Bamboo Nursery – Big (1 ha)	20 lakh/unit	100% of cost to Govt. sector and 50% of cost to private sector. Each nursery will produce a minimum of 30,000 plants per ha per year duly certified for its quality. Accreditation of each bamboo nursery is necessary within 18 months from the date of receipt of last installment
iii.	Bamboo Nursery – Small (0.5 ha)	10 lakh/unit	
iv.	New Tissue Culture Nursery	250 lakh/unit/	100% of cost to public sector and in case of private sector, credit linked back-ended assistance @40% as project based activity Each TC unit will produce a minimum of 10 lakh plants/year or on pro-rata basis for higher capacity upto 25 lakh plants/unit of commercially important bamboo species duly hardened for which protocols are available for commercial use. Accreditation

			of each TC lab will be mandatory within 18 months from the date of receipt of last installment.
v.	Raising of Quality Saplings in existing government TC nursery.	Rs.35 per sapling (Max 50,000 sapling per Nursery)	100% of cost to public sector. Assistance will be logically transferred to the farmers by reducing selling price by Rs.35/per sapling
vi.	Raising of Quality Saplings in existing government Non TC.	Rs.20 per sapling per year (Max 50,000 sapling per Nursery)	100% of cost to public sector. Assistance will be logically transferred to the farmers by reducing selling price by Rs.20/per sapling
2.	Plantation (Using planting material from the accredited/approved nurseries)	Rs.1.20 lakh per ha (min 400 plants/ha) or Rs. 300/- per plant (for boundary plantation with nominal spacing of 5m). For the NER States cost norm shall be Rs.1.30 lakh per ha.	100% of cost to Govt. sector. For private sector 50% of the cost upto 10 Ha over 2 years (60:40). No subsidy will be provided for private plantation above 10 ha per person. Plantation may also be carried out by FPOs/FPCs/Societies/SHGs/Farmer's group etc for private/public land. Maintenance fund will be linked to performance survival %. [Note: Spacing of plants shall be as per the recommendations of NBM/Technical Agencies]
3.	Integrated Plantation with drip irrigation facility (using planting material from the accredited nurseries)	Rs. 1.20 lakh per ha (min 400 plants/ha) or Rs.300/-per plant, For the NER States cost norm shall be Rs. 1.30 lakh per ha.) +cost of drip irrigation as per norms of PMKSY-PDMC.	
4.	Stock Improvement	Rs. 30,000 per ha once in 5 years.	For Government 100%. For private 50% limited to 2 ha per beneficiary. For existing plantations where no NBM assistance received in past 5 years.
B.	**Primary Processing and Aggregation**		
1.	Establishment of bamboo treatment and seasoning plants	25 (Project based)	100% of cost to Govt. For Private Sector 50% of project cost subject to maximum upto indicative cost.
2.	Establishment of bamboo depots and godowns	60 (PB)	100% of cost in Govt. sector. 25% assistance for private sectors subject to maximum upto indicative cost.
3.	Common facility centre(CFC) / Processing unit	50 (PB)	100% of cost in Govt. sector. 50% assistance for private sectors subject to maximum upto indicative cost.

C.	**Innovative Interventions including MSME/manufacturing units/ Integrated Bamboo Park**	Rs. 18 lakh to Rs. 500 lakh	100% of cost to Govt. For Private Sector 50% of cost for component projects upto Rs. 1 Cr and 30% for component project cost above Rs. 1 Cr limited to the maximum indicative component cost.
i.	Establishment of processing units for value addition of Bamboo (in Nos.)	40 (PB)	
ii.	Handicrafts / Cottage industry &life style products	25 (PB)	.
iii.	Furniture making	30 (PB)	
iv.	Jewellery making	18 (PB)	
v.	Bamboo Food Processing	30 (PB)	
vi.	Incense stick making	40 (PB)	
vii.	Bamboo Charcoal (Small &medium scale)/Biochar making unit	40 (PB)	
viii.	Beauty &Wellness products	25 (PB)	
ix.	Scaling up of emerging technology [An MoU between the entrepreneur/Sectoral Government Research Institution with State Bamboo Mission may be made]	50 (PB)	
x.	Upgradation of existing Small Units	20 (PB)	
xi	Fibre / Fabric extraction	60 (PB)	
xii.	Bamboo board/ mat products/ corrugated sheets/ floor-wall tiles/ laminates/lumber/particle board/ MDF/Orient Strand Board (OSB)/etc	500(PB)	
xiii.	Compressed Bio Energy extraction [As per the Norms of MNRE scheme of Waste to Energy and BioGassifiers]	200 (PB)	
xiv.	Activated Carbon product making/ large scale charcoal production (2-3 T per batch)	240 (PB)	
xv.	Bamboo Pellets, granules, Composite and molded products	500 (PB)	
xvi	Upgradation of Existing Medium and Large Units	200 (PB)	

D.	**Promotion and Development of Infrastructure for Bamboo Market**		100% of cost in Govt. sector. 25% assistance in private sector subject to maximum upto indicative cost.
1.	Promotion of bamboo mandi (bamboo market place) and e-trading in Govt. sector/private sector	120 (PB)	
2.	Bamboo bazaar/bamboo haats/etail outlet.	25 (PB)	
3.	Bamboo Construction (Furniture, building, house hold etc.)	25 Lakhs/structure(PB)	100% For Government Constructions only.
E.	**Development of tools, equipment & machinery**		100% grant to Govt. institutions for development of design etc., 50% grant to those machine making units who are developing these machines.
1.	Technological enhancement of tools, equipment &machinery	100 (Project based)	Distribution of tools/machinery to artisans/trained entrepreneurs by SBM/BTSG also included:100% cost of tool kit (max Rs. 20,000/kit/person) and bamboo machinery (max Rs. 2 lakh/person) for artisans/ successful trainees of SBM/ premier bamboo training institutes/NID etc.
2.	Import of technological superior tools, equipment &machinery in Common Facility Centre	500 (Project based)	
3.	Centre of Excellence in thematic areas of the bamboo value chain	Upto Rs. 10Cr. (Project Based)	100% cost to Govt. / public sector. This can be established through bi-lateral co-operation also.
F.	**Skill Development**		As per approved rates of the premier training institutions/ sector skill councils under Skill India Programme. The rates for various types of training as per the PMKVY guidelines may be referred during submission of the proposal]
1.	Training/ Exposure visit of Farmers/Artisans//Entrepreneurs/ field functionaries/ NBM staff/ Officers.	Project based as per the approved rates of the Govt./public institute	
i.	Within the State	1000/person/day or as per the approved rates	100% assistance.
ii.	Outside the State	Project based	100% assistance. For maximum 7 days.
iii	Outside the India	Upto Rs. 1.50 lakh / Participant	Course fee cost to be funded under Mission Management. Assistance @ 100% of economic air/rail travel.
G.	**IEC: Seminars/Conferences/Workshops/exhibitions/Bamboo Fest/Trade Fair etc**. (Upto 5% of allocation)		

1.	Participation/ Sponsoring of Farmers/Artisans/SHGs/Entrepreneurs/ innovators etc.		100%for Govt.
i.	International level	Project based maximum upto Rs.10 lakh per event	
ii.	National level	Project based maximum upto Rs.6 lakh per event	
iii.	State level	Project based maximum upto Rs.3 lakh per event	
2	Organizing/ Sponsoring Seminars/Conferences/Workshops/exhibitions/Bamboo Fest/Trade Fair		100% for Govt./Industrial Association/ bodies.
i.	National level	Project based maximum upto Rs.30 lakh per event of 2 days program.	
ii	State level	Project based maximum upto Rs.10 lakh per event of 2 days program.	
H.	**Research& Development of Bamboo Value Chain**		
1	Research& Development	Project based upto 500 lakh	100%for Govt.
2.	Mapping of resource base	Project based (1000 Lakh)	100% for Government organizations. [Engagement of private agencies by Govt. Organisations may be as per extant rules].
3.	Market Survey/ research	Project based (upto 200 lakh)	100% for Government and 50 % private sector.
4.	Certification/ Beneficiary Management System /MIS	Project based upto 50 lakh)	100% for Government and 50 % for private sector.
6.	Bamboo Construction/ Bamboo Product Design	Project based upto 30 Lakh	100% for Government and 50 % for private sector.
7.	Maintenance of Bamboo setum /germplasm/ genetically superior varieties for locational trials of commercially important species	Project based upto 50 lakh	100%forGovernment.

8.	Bamboo based Business Incubation Centre / Innovations in Bamboo /Design Development /Product Based Technology Development	Project based upto 1000 lakh	100% for Government.
9.	Baseline survey and Strengthening Bamboo statistical data base	Rs. 200 lakh for large states, Rs. 100 lakh for small states and Rs. 50lakh for UTs.	100% of cost for Government.
I.	**Project Management** (Upto 2.5% of allocation)		
	State Level Project Management Contingency Monitoring &Evaluation	Proposal based upto 2.5%	100% for Government.
J	**National Level**:	Proposal based	100% for Government.
1	Technical Support Group (TSG) for hiring experts/staff, studies, Seminar/ Workshops, training, contingencies, monitoring & evaluation, mass media, publicity, video conference		
2.	Technical Collaboration with International agencies like FAO, World Bank, ADB, UNIDO, Bilateral cooperation, International exposure visits/ training of officials as per EAP norms & approval.	Project Based (on actual cost basis)	100% for assistance.

Annexure II

Indicative TSG Component:

A. Technical Support Group (TSG) - National Level

Sr. No.	Items	Total	Honorariumper month (in lakh Rs.)	Qualifications&otherconditions/Remarks
1.	Senior Consultant	01	1.45- 2.65/- (depending upon qualification &experience)	**Essential:** i) Masters degree in Agriculture/Forestry/Horticulture/Environment Science/ Botany or related subject or Bachelors Degree in Agricultural Engineering from a recognized university or institute. i) Minimum 8 years experience of working on Management of natural resources and development of value chain project in Govt. Departments or public sector undertaking or semi-Government or autonomous or statutory organization or reputed private organisations in senior level role. ii) Age upto 62 years. iii) Qualifications & age limit may be relaxed for engaging excellent persons with distinguished track record of working in the bamboo sector. iv) **Desirable**: Ph. D or M.Tech in related subject.
2.	Consultant Grade-2 (Production)	01	0.80- 1.45 (depending upon qualification &experience)	**Essential**: i) Masters degree in Agriculture/Forestry/Horticulture/Environment Science/ Botany or related subject or Bachelors Degree in Agricultural Engineering from a recognized university or institute. ii) 6 years experience in project formulation including forestry, bamboo, agro-forestry, horticulture project in Govt. Departments or public sector undertaking or semi-Government or autonomous or statutory organization or reputed private organisations in senior level role. iii) Age upto 50 years. iv) Qualifications & age limit may be relaxed for engaging excellent persons with distinguished track record of working in the bamboo sector. **Desirable**: Ph. D or M.Tech in related subject.
3.	Consultant Grade-2 (Value Addition and	01	0.80- 1.45 (depending upon qualification &experience)	**Essential**: i) Master degree / MBA in Marketing/Trade/Agri-business and related subject from a recognized university or institute. ii) Minimum 6 years experience in product development, value

	Marketing)			chain development and marketing or trade in natural resource project in Govt .Departments or public sector undertaking or semi-Government or autonomous or statutory organization or reputed private organisations in senior level role. iii) Age upto 50 years. iv) Qualifications & age limit may be relaxed for engaging excellent persons with distinguished track record of working in the bamboo sector. **Desirable**: Ph. D in related subject.
4.	Consultant Grade-2 (FPO management and business development)	01	0.80- 1.45 (depending upon qualification &experience)	**Essential**: i) Master degree in Agri-business/Sociology/Rural Development or related subject or Bachelors Degree in Agricultural Engineering from a recognized university or institute. ii) Minimum 6 years experience in FPO management and business development project in Govt. Departments or public sector undertaking or semi-Government or autonomous or statutory organization or reputed private organisations in senior level role. iii) Age upto 50 years iv) Qualifications & age limit may be relaxed for engaging excellent persons with distinguished track record of working in the bamboo sector. **Desirable**: Ph. D in related subject.
5.	Consultant Grade-1 (Production)	01	0.50-0.70/- (depending upon qualification &experience)	**Essential** i) Master's degree in Agriculture/Forestry/Horticulture/Environment Science or related subject or Bachelors Degree in Agricultural Engineering from a recognized university or institute. ii) 4 years experience in project formulation including forestry, bamboo, agro-forestry project in Govt. Departments or public sector undertaking or semi-Government or autonomous or statutory organization or reputed private organisations in mid management role. iii) Age upto 40 years iv) Qualifications & age limit may be relaxed for engaging excellent persons with distinguished track record of working in the bamboo sector.
6.	Consultant Grade-1 (Value addition and Marketing)	01	0.50-0.70/- (depending upon qualification &experience)	**Essential** i. Master degree / MBA in Marketing/Trade/Agri-business and related subject from a recognized university or institute. ii. 4 years experience in product development and marketing or trade project in Govt. Departments or public sector undertaking or semi-Government or autonomous or organization or reputed private organisations in mid management level role. iii. Age upto 40 years iv. Qualifications & age limit may be relaxed for engaging

				excellent persons with distinguished track record of working in the bamboo sector.
7.	Consultant Grade-1 (FPO management and business development)	01	0.50-0.70/- (depending upon qualification &experience)	**Essential** i. Master degree in Agri-business/Sociology/Rural Development or related subject or Bachelors Degree in Agricultural Engineering from a recognized university or institute. ii. Minimum 4 years experience in FPO management and business development project in Govt. Departments or public sector undertaking or semi-Government or autonomous or statutory organization or reputed private organisations in mid management level role. iii. Age upto 40 years iv. Qualifications & age limit may be relaxed for engaging excellent persons with distinguished track record of working in the bamboo sector.
8.	Programmer	01	0.40-0.50/- (depending upon qualification &experience)	B. Tech in Computer Science /IT or MCA with 2 years experience in web designing, online and offline MIS Development, programming
9.	Data Entry Operator	04	30,000/-	Should not be less the Minimum wages as notified by Govt of NCT of Delhi
10.	MTS	05	25,000/-	

B. **Bamboo Technical Support Group (BTSG)**

Sr. No.	Items	Total	Honorarium permonth (in Lakh Rs.)	Remarks
1.	Bamboo Consultant	2	0.50-0.70/-	-
2.	Bamboo Assistant	2	0.40- 0.50/-	-
3.	Programmer	1	0.25-0.30/-	-
4.	Data Entry Operator	2	0.15-0.20/-	Should not be less than the Minimum wages as notified by respective State Government's/ Labour Department/ State Government.

C. **State Level Technical Support Group (TSG) for State Bamboo Missions**

Sr. No.	Items	Total	Honorarium permonth (in Lakh Rs.)	Remarks
1.	Bamboo	4	0.50-0.70/-	-

	Consultant			
2.	Bamboo Assistant	8	0.40- 0.50/-	-
3.	Programmer	2	0.25-0.30/-	-
4.	Data Entry Operator	3	0.15-0.20/-	Should not be less than the Minimum wages as notified by respective State Government's/ Labour Department/ State Government.

Annexure III

Indicative Recommendation of Spacing for Bamboo Plantation

Bamboo Species	Spacing	Number/ha	Number/Acre	Area Suitable to grow
Largest Size				
Denraocalamus giganteus	N-8x8 m I-6x6 m	160-280	65-110	All regions of India rice is being cultivated except arid/semiarid and temperate zone. Water requirement is high. Cultivation restricted to 800m altitude.
D. asper	N-06x6 m 1-5x5 m	280-400	110-160	Same as above
D. brandisii	N-6x6 m I-5x5 m	380-400	110-160	Same as above except in cold regions of North
D. sikimensis	N-6x6 m I-5x5 m			Subtropical zone of North East India
Large size				
Bambusa balcooa	N-5x5 m 5x6.5	400- 440	160-180	Versatile easily grow in rice cultivation regions except arid, saline and temperate zone. Cultivation possible in semi arid area where pH is less than 7, with irrigation and soil maneuvering. Cultivation may be restricted to 800 m altitude.
B. vulgaris	N-5x5 m I-5x4.5 m	400-440	160-180	Same as above
Gigantochloa attrovoilaceae (Black bamboo)	N-5x5 m I-5x4.5 m	400-440	160-180	Same as above
D. somedevai	N-5x5 m I-5x4.5 m	400-440	160-180	May be restricted to subtropical and temperate zone of North India
D. bamiltonii	N-5x5m I-5x4.5	400-440	160-180	
Medium Size				
Bambusa tudla	N—5x5m I-5x4 m	400-500	160-200	Versatile easily grow in rice cultivation regions except arid, saline and temperate zone. Cultivation restricted to 800 m altitude.
Bambusa nutans	N- 5x5 m I-5x4 m	400-500	160-200	Same as above Cultivation possible up to 1400m altitude. Chilling tolerance.

Bambusa polymorpha	N-5x5m I-5x4 m	400-500	16-200	All regions of India where rice is being cultivated excepts arid/semi arid and temperate zone. Cultivation restricted to 800 m altitude.
Small size				
D. strictus	N-3x4m I- 3x3 m	833-1100	333-425	Most versatile bamboo growing in India and grow almost all climate conditions except dessert and temperate. It grows even in slightly basic and saline semi arid climatic conditions. Productivity with irrigation and soil maneuvering. Cultivation restricted to 1000 m altitude on eastern and southern slopes.
D. stocksii	N-4x4 m I-3x4 m	625-833	260-333	Though being grown in Konkan belt now being cultivated in Maharashtra and Karnataka. Suitable to other parts of India where rice is being cultivated except arid, subtropical and temperate zone. Cold sensitivity has been noticed in North so not recommended in hilly regions.
Thyrsostachys oliveri	N-3x4 m I-2x4 m	833-1250	333-500	Most cultivated bamboo of Tripura. Suitable to grow in all tropical humid and high moisture regions.

N: Normal, I: Irrigated