

## **BAANS**

### **Bamboo Applications and Support Scheme**

#### **Introduction**

1 Other than the basic elements of the Earth, if there is one natural resource that constitutes the social and economic life and the culture of the North East Region (NER), it is bamboo. It is a boon that this vibrant, multi-faceted resource is green and renewable. The people of the NER, especially the poor, rural and the tribal people have used and harnessed this resource for their very basic needs for centuries. This has created a sound and sustained pattern of use and the necessary skills and expertise to manipulate and fashion this material for a large number of applications and uses. Advances in bamboo technology and related applications have enabled not only an expansion of the use of the resource in new and key areas but also to generate substantial value addition, which in turn makes it possible for the producers and users to earn higher incomes and sustainable livelihoods. The industrial use of bamboo has substantial opportunities for equitable employment on account of decentralised production processes and value chains. The interventions of the National Mission on Bamboo Applications demonstrated the efficacy and advantages of industrial uses of bamboo, value addition, income generation and technology infusion.

#### **The need for Consolidation**

2 The North East Centre for Technology Application and Reach (NECTAR) has been set up as an autonomous body under the Department of Science & Technology. NECTAR has been constituted as a society on 30<sup>th</sup> November, 2012 and is headquartered at Shillong, Meghalaya. The Centre is sought to be designed in terms of the following expectations:

- Differentiated Approach from Technology Development Organizations
- The Role Of Solution Designer
- NECTAR as a partnership institution
- Technology Assistance to the state Government in North Eastern Region
- Assistance to State Government in Technology Assisted Decision Support Systems
- Focus on Technology Reach Function

A key and important functional component of NECTAR is to amalgamate and carry forward the technologies, knowledge and assets, with special reference to the North East States and its economies, which are already created and amassed under the two Missions under the

Department of Science & Technology, viz: the National Mission on Bamboo Applications (NMBA) and the Mission for Geo-spatial Applications (MGA) into NECTAR.

It was stated that “the two Missions, viz, Mission for Geo-spatial Applications and National Mission on Bamboo Applications will be merged and absorbed with the activities of NECTAR.”

3 The National Mission on Bamboo Applications (NMBA) was set up in the year-2004-2005. In the year 2008, the NMBA was extended for the entire 11<sup>th</sup> Plan period. The Mission came to an end on 31<sup>st</sup> December, 2013. The total life of the Mission was thus around nine years. Since the NMBA was concerned exclusively with bamboo and bamboo applications, its relevance and importance for the North East was particularly crucial. This is considering that 70% of bamboo resources are located in the North East Region and bamboo related economic activities are vital for the livelihoods, income and housing and shelter needs of the poor and depressed classes of people, especially the tribal population.

4 It is inherent in the decision of setting up the Centre that the department took a considered and conscious view that it is important to preserve, consolidate and carry forward the assets, knowledge, capacities and expertise that was created in the Mission through the vehicle of an autonomous body with an enlarged mandate to extend their expertise in technology absorption and delivery to other sectors and areas as well. The strategy to locate the Centre in the North East and to task it to deliver technology solutions to this region also had a strong logic of harnessing the knowledge assets and expertise in the most optimal way.

5 The snapshot of the nature and volume of the activities and assets, including ongoing work and obligations for the NMBA is as follows:

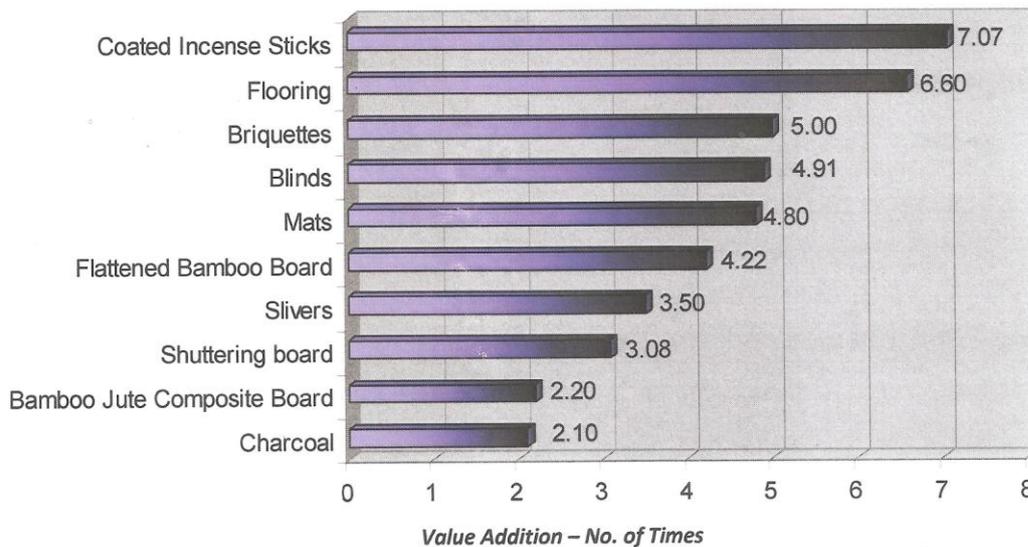
1. Over the period of the Mission amounting to almost ten years, NMBA made total investments of around Rs 133 crores covering nearly 385 units and entities in the form of grants, loans, technical knowhow and other support services. The total investment in the North East Region is of the order of Rs 58 crores and it is spread over 144 units and entities.
2. The capital assets, including its knowledge assets, of the NMBA as on date are around Rs 69 crores.
3. The outstanding loan portfolio of NMBA is around Rs 55 crores involving 91 units and entities. The corresponding figures for the North Eastern States are as follows: Total outstanding loans: Rs 34 crores; Number of units: 54 units and entities. These portfolios will have to be serviced over a period of around 5 years as per the loan conditions and arrangements. The loans are secured against the hypothecation of the plant and machinery of these units.
4. The NMBA provides technical, consulting, marketing and other support services to nearly 91 units all over the country out of which 54 units, organizations and

entities are located in the NE Region. These units would continue to be given such support.

5. The NMBA has financed and supported a total of 22 entities as common facility centers and public utility services in the country as a whole. Out of these 17 centres are located in the NE Region. As per the arrangements these common utility centres and services would continue to be serviced and guided by technology and related support.

6 The NMBA shall come to an end on 31<sup>st</sup> December, 2013. The question is how to carry forward and structure the activities of NECTAR in the domain of bamboo applications so that the investments and efforts already accomplished in the Mission mode are put to efficient use and consolidated.

Essentially, the work of the Centre requires that it be consolidated and expanded in an institutional mode. A comprehensive study conducted in 2011 on bamboo sector development and the scope of value addition and economic growth in the various areas of bamboo applications, made the following findings:



Bamboo, in its industrial use, is a green resource, which is conducive to the co-existence and mutually beneficial linkages across the entire chain from the unorganised to the organised sector. The study quoted above makes this point in sufficient detail as follows:

*“This could lead to a debate on whether an industrial approach is really needed for something manufactured traditionally and on such a wide scale. To be fair, bamboo based production even if pursued systematically in the cottage/home sector, can lend itself to a large employment opportunity, meeting livelihood needs of poor across the length and breadth of the country. Typical products falling under this form of manufacture would be handicrafts, low value utility items such as baskets, containers, farm tools, and incense sticks,*

among others. However product options pursuable from this approach are limited considering demand for different products, quality aspirations of modern day markets, competitive ability, and criteria of affordability and availability when distributed markets have to be addressed. The unorganised sector if tapped and linked to the organised can provide a huge base of value added raw material, engaging the poor to grow, maintain, harvest, and change the form of bamboo to a required intermediate stage such as slats, sticks, or slivers, that can be supplied economically to larger organised units for further creation through higher capital and mechanised approaches. As such, both manufacturing sectors, the home-based and industrial, have space and will continue to co-exist for different needs, though putting pressure on each other from their appeal as a handicraft, customisation ability, finish, and price point of view. However in both cases the need to add value to the quality of bamboo in its natural form will need to be focussed on if bamboo-based products have to increase their market penetration.”

The above point is reinforced in a pictorial schemata as follows:

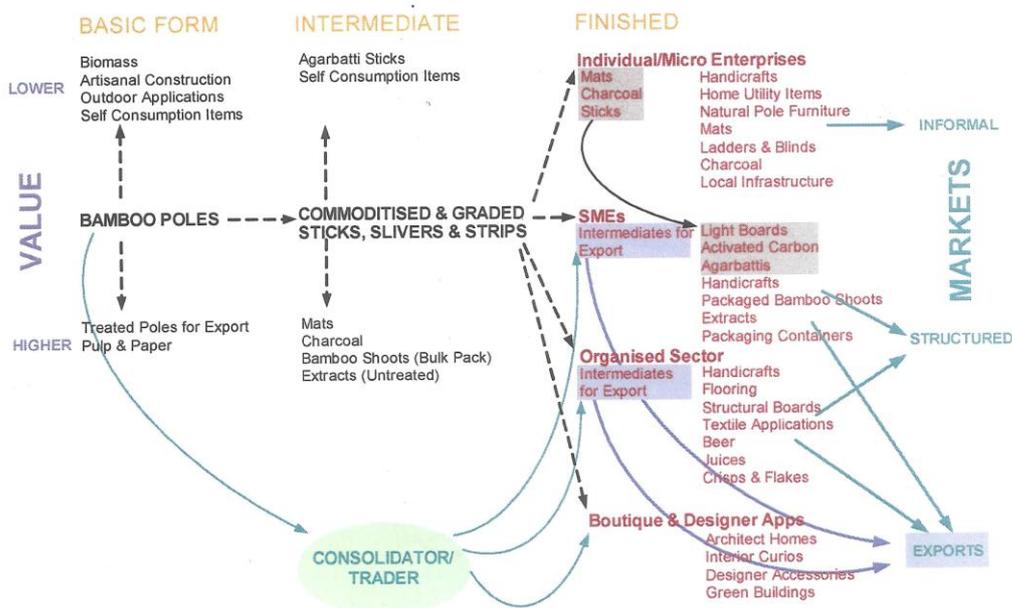


Chart 1: Forms, values, and markets for bamboo products



Chart 2: Typical phases of bamboo product evolution

On these issues, structured discussions were held with a number of bamboo product producers, entrepreneurs, State Missions and State Govt. representatives in the NE region. Following the meetings and discussions, an umbrella programme has been evolved which will be implemented by NECTAR by undertaking partnership with the various stakeholders.

### **Bamboo Applications and Support Scheme (BAANS)**

#### **Objectives:**

1. To undertake support measures under public private partnership mode (PPP) in various areas of bamboo applications to generate employment, create sustainable livelihoods and incomes, especially among the poor and disadvantaged groups, including women.
2. To support and promote community groups, self-help groups and decentralised associations of people to undertake economic activities in bamboo products and value added processing.
3. To support measures for expansion and consolidation of bamboo technologies, achievement of economies of scale, expansion of markets, product improvement and development.
4. To bridge and plug the technology gaps, in terms of delivery, maintenance and services, in the production and sales cycle of bamboo applications.
5. To promote and establish common infrastructure facilities in bamboo products, technologies and applications.

#### **Types of activities:**

The following is an indicative list of the types of support measures that shall be accorded priority in the scheme:

- (i) Technology delivery and services
- (ii) Product design and improvement ; process improvement
- (iii) Quality standards and certification
- (iv) Skills training
- (v) Common facilities and pooling of infrastructure support
- (vi) Marketing consolidation
- (vii) Export standards
- (viii) Operation of revolving funds
- (ix) Tools design and delivery
- (x) Equipments for bridging technology gaps
- (xi) Technology assets maintenance and servicing support

### **Scope of Public Private Partnership**

The Mission Mode of the NMBA has already created production capacities and technology capabilities, including skilled human resources (although by no means sufficient) in various product lines and bamboo applications. It is desirable and necessary that these assets and capacities are optimised and put to efficient economic use and which can then pave the way for expansion of the capacities themselves by bringing into the fold new entrepreneurs, investments and skilled work force. Therefore, in the first phase, the scheme shall choose the private partners (for the PPP mode) from among the registered entities of the NMBA. The registered entities are those firms, companies, NGO's and institutions that have collaborated with the NMBA and have been provided support and assistance to develop and create capacities in bamboo applications and services, including skilled human resources.

### **Types of partnerships:**

The projects under the programme would broadly fall under the following types:

(i) Service contracts (ii) operations and maintenance contracts and (iii) capital projects, with operations and maintenance services.

### **Types of assistance and payment mechanisms :**

Payment to the private sector could take the form of: (a) *contractual payments*

(b) *grants-in-aid* and (c) *right to levy user or service charges* for the assets created/leased-in. Contractual payments may be in the form of advance payment, progress payment, final payment, annuities and guarantees for receivables etc. Annuities, in turn, could be with respect to recovering the fixed cost or for recovering both variable cost and the fixed cost of the project. In the former case, both the government and the private partner share the risk of running the project.

Grants-in-aid, in turn, can take different forms such as a block grant, capital grant, matching grant, institutional support, etc. Lease agreement license, similarly, may allow the partner to recover the cost of construction/operation & maintenance through levying user charges. Moreover, in the case of lease agreement, the asset reverts to the Centre after the expiry of the contract. The agreement ought to also provide for the *condition of asset* that would be returned at the end of the contract.

### **Monitoring & Evaluation:**

It is, quite often, thought that the job is over with the signing/finalizing the 'contract'. Payments have to be, however, linked to performance, which in turn requires monitoring. Performance measurement can be done with respect to measuring 'efficiency' or measuring 'effectiveness'. While measurement of *efficiency* entails comparing *the unit cost* of providing the service from *amongst the various alternatives*, measurement of *effectiveness* involves comparing the desired outcomes from amongst the various alternatives.

Monitoring may be done in either of the following ways (i) by the Centre based on a standardized scale, (ii) by independent agencies based on a standardized scale. (iii) by the

Centre, based on the simple criteria of ‘pass’ and ‘fail’ (iv) by the Centre or independent agencies, based on the feedback received from the beneficiaries.

Involvement of third party/independent agencies for monitoring appears to be preferable as they leave the Centre unencumbered over the project duration and minimize bureaucratic control. *A certain percentage of the cost of the project needs to be, therefore, earmarked for contract management.* The Centre and the service provider could mutually decide the third party. The third party involvement could be further supplemented with provisions for adjudication.

### **Risk & Revenue Sharing:**

PPP involves sharing of risk and reward between the partners. The risk involved in project implementation may be of the following types:

(a). *Construction/implementation risk, arising from:*

- i. delay in project clearance;
- ii. contractor default;
- iii. environmental damage

(b). *Market risk, arising from:*

- i. insufficient demand;
- ii. impractical user levies.

(c). *Finance risk, arising from:*

- i. inflation;
- ii. change in interest rates;
- iii. increase in taxes
- iv. change in exchange rates.

(d). *Operation and maintenance risk, arising from:*

- i. termination of contract;
- ii. technology risk;
- iii. labour risk.

(e). *Legal risk, arising from:*

- i. changes in law;
- ii. changes in title/lease rights;
- iii. insolvency of developer/service provider;
- iv. change in security structure.

It is essential that all the generic risks be identified before finalizing the contract. The assurance of the Centre to share the risks with the private partner is a significant confidence building measure. Quite similarly, if the actual output/returns exceed those contemplated at the start of the project, the gain is to be shared (equally) between the public and the private sectors.

Under the scheme, two sectoral projects have been finalised for implementation:

- (i) Bamboo board and timber products and furniture support project
- (ii) Incense sticks production support project