

ANNUAL REPORT

2007-2008



Cane and Bamboo Technology Centre

Here they come



Shri Jairam Ramesh, MoS, Ministry of Commerce, at Bamfest-2006



Shri PP Shrivastav, Member, NEC at Bamfest-2006



Shri Mani Shankar Aiyer, DoNER Minister at the launching of UNIDO-CBTC 2nd Phase



Shri Mani Shankar Aiyer and Dr. Kandeh Yumkella, Director General of UNIDO, at the launching of UNIDO-CBTC 2nd Phase



Shri Jairam Ramesh being greeted by Chief Minister of Tripura, Shri Manik Sarkar



VIPs at the dais of the Bamfest-2006



Shri Jitendra Chowdhury, Minister, Govt. of Tripura speaking at Bamfest-2006



Officials at the Bamtech-2003



Shri Zoramthanga, CM, Mizoram at the Bamtech-2003, Guwahati



Shri Tarun Gogoi, CM, Assam at the Bamtech-2003, Guwahati



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Governing Body Members

Secretary, North Eastern Council (NEC), Shillong	President/Chairman
Mission Director, National Bamboo Mission (NBM), New Delhi	Vice-President
Adviser (Planning), NEC, Shillong	Member
Adviser (E&F), NEC, Shillong	Member
Financial Adviser, NEC, Shillong	Member
State Mission Director, NBM, Assam	Member
State Mission Director, NBM, Meghalaya	Member
State Mission Director, NBM, Manipur	Member
State Mission Director, NBM, Arunachal Pradesh	Member
State Mission Director, NBM, Tripura	Member
State Mission Director, NBM, Nagaland	Member
State Mission Director, NBM, Mizoram	Member
State Mission Director, NBM, Sikkim	Member
Representative of Bamboo Grower	Member
Representative of Bamboo Processing Industries of NER	Member
Secretary, CBTC	Member Secretary

Executive Body Members

Adviser, (Planning), NEC, Shillong	President
Adviser (Banking & Industries), NECI, Shillong	Vice-President
Dy. Financial Adviser, NEC	Member
State Government Representative from (Assam State Bamboo Mission)*	Member
State Government Representative from (Manipur State Bamboo Mission)*	Member
State Government Representative from Sikkim*	Member
State Government Representative from Arunachal Pradesh*	Member
Director/Secretary, Cane and Bamboo Technology Centre, Guwahati	Member Secretary
General Manager, Cane and Bamboo Technology Centre, Guwahati	Joint Secretary
Accounts Officer, Cane and Bamboo Technology Centre, Guwahati	Treasurer

**To be nominated on rotation basis from State Government*



From the Director's Desk

WORKING WITH the tallest grass on earth prepares one to raise the bar. At Cane and Bamboo Technology Centre (CBTC), we always believe in raising it higher every day ever since our inception in 1999.

The 2007-08 fiscal year would perhaps go down as the most remarkable phase for CBTC. It marked a decade of our existence and the report of the UNIDO evaluation team for the 1st phase of the UNIDO-CBTC project under DST, Govt. of India, recommended the proposal for 2nd phase project in the light of CBTC being adjudged as the most successful project under the UNIDO country program for the period. In this connection, the centre was invited to showcase our achievements at the UNIDO conference in Vienna, Austria from December 3 to 7, 2007. The centre has been primed to be the Bamboo Technical Support Group (BTSG) under the National Bamboo Mission, and thereby took us closer to the new members of our family – Bihar, Jharkhand, Orissa and West Bengal – and helped raise our stock as an independent global model of product specific efficiency.

All the factors combined to make 2007-08 a fiscal of immense responsibility – and satisfaction of having met expectations. Of giving shape to the objectives of NBM implemented by Union Agriculture Ministry's Horticulture Division, promoting growth of the bamboo sector and impacting lives through generation of employment opportunities.

Dealing with a versatile grass entails resourcefulness. Team CBTC, brims with this trait, almost like the bamboo, growing abundantly across India's eastern and northeastern region. Resourcefulness to face challenges, come up with new ideas, acquire and impart new skills, industrialize the bamboo sector and make lives better for the stakeholders.

We have made rapid strides working with the wonder grass. But then, we believe in going a step further, or in other words, raising the bar. This report is a small attempt to highlight our activities and achievements in the most comprehensive way.

A handwritten signature in black ink, appearing to read 'Kamesh Salam', with a stylized flourish at the end.

Kamesh Salam

Cane & Bamboo Technology Centre

The Beginning

Connected by a narrow strip to the Indian mainland, surrounded by the Himalayan foothills and China to the north and Myanmar to the west and south, lies the eight Indian states that are collectively known as Northeast India. Spread over an approximate expanse of 265,000 square kilometers, the regions eight states – Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura – with their rivers, serried mountain ridges and thick tracts of impenetrable jungle, are home to some of the most colourful people in the world. And this region lives out of bamboo – having one of the highest concentrations of natural bamboo strands in the world. This wonder plant is intricately interwoven into the socio-cultural fabric of the population of the area. While Bamboo forests in India occupy approximately 10.03 million hectares, about 28 percent of the area is located in the Northeast and the region accounts for almost sixty percent of the country's total bamboo reserves. There are 63 species of 20 genera in the region. Besides these, there are also 11 exotic varieties.

The current demand for bamboo in India is estimated at 27 million tons, but only about half of that is presently available. Intensive cultivation with scientific approach, newer plantations and proper management are needed to bridge the gap. Northeast India, with its high concentration of bamboo, stands as the perfect place to start. The raw stock in the region is valued at around INR 50 billion. With suitably feasible schemes of value additions of even just about two times, approximately INR 100 billion can be easily generated in the Northeast alone, on an annual basis. Even for a moment, assuming that one is able to utilize only about 25 percent of the resource base, the Northeast can easily generate INR 25 billion a year.

With this in mind, discussions between the Government of India and the United Nations Industrial Development Organization (UNIDO), in 1999, gave rise to an intensive national program for developing the bamboo industry sector of Northeast India. It was in this context that a specialized institution dealing solely with cane and bamboo was created, namely: the Cane and Bamboo Technology Centre (CBTC).





CBTC was set up in 2000 in the city of Guwahati in Assam as a project with financial support from the United Nations Development Program (UNDP) and with technical implementation from UNIDO with Department of Science and Technology, Government of India as the implementing agency. The project's immediate objectives were to (1) enhance the access of stakeholders to advanced information, technology and know-how; (2) to establish a resource network to facilitate technological upgrading, provide linkages to markets, financial institutions and credit organizations, and other support agencies; and (3) encourage association and cooperation amongst sector constituents and create a platform for the setting of agendas for research and support in the field of bamboo.

CBTC aimed to identify and disseminate technologies for economic enhancement of crafts people and small and medium-scale entrepreneurs, and also to enhance the skills and quality



of goods produced in the cane and bamboo sector. The mandate of CBTC included strengthening the capacity of existing support institutions through networking and linking them with specialized institutions in India and abroad.

With support from UNIDO, CBTC initiated comprehensive and integrated programs with long term goals of up-scaling the bamboo sector in order to enhance economic opportunity, income and employment. The overall development objective was the generation of income and the creation of employment opportunities for farmers, craftspeople and small entrepreneurs. New knowledge and know-how was needed to improve their capabilities. Ecological sustainability through sustainable practices and management of resources was a second development objective; it was necessary to promote ways whereby the potential of cane and bamboo could be used to help conserve the fragile eco-system of the region.



Cane & Bamboo Technology Centre

Today

UN funding programs for development projects have a limited life. Projects are kick-started with funds and know-how with the expectation that they will become self-sustaining after a few years. CBTC is a success story as far as bamboo development is concerned. With UNIDO's assistance, CBTC changed the focus of the bamboo sector from the traditional handicraft to an industrial approach of manufacturing engineered bamboo products for various applications and replacing timber. After the term of UN funding for the CBTC project elapsed in 2004, CBTC continues to stand on its own and is living up to the original goals and mandates that were defined upon its creation. With the infrastructure and core competence built

up over the years, CBTC got itself incorporated under the Societies (Registration) Act, 1860 and is now functioning as an independent body, part-funded by the North Eastern Council (NEC). What's more, CBTC continues to preserve a strong relation with UNIDO – not as a recipient of development funds, but rather as a supplier of technical expertise. Today, CBTC is a model that agencies of the United Nations and other non-governmental organizations use in development programs around the world. The personnel of CBTC are frequently called upon to provide their expertise as consultants for bamboo projects around the world.



CBTC involves its creativity and resource in talent scouting, training, technology sourcing, and market linkage for giving a new age thrust to the age old bamboo sector. Keeping in mind the fast track changes in the global marketplace, contemporizing the traditional presentational aesthetics of bamboo end products receives priority. In this never ending endeavor of CBTC to unleash a new dimension to bamboo of North East, the organization has set a benchmark to measure the impact. Unfailingly the apex index of the benchmark is: how many more homes did we add today to the bamboo grove of happiness and prosperity!

Cane & Bamboo Technology Centre

The Services



Training

Throughout the year CBTC maintains a training calendar to ensure dissemination of new developments in the cane and bamboo sector. Trainers involved in the training of craftsperson are routinely updated on new processes, methods, technologies and products by CBTC. This function accommodates the dynamic demands, which originate at various levels ranging from trainer's self-evaluation, policy makers feedback, global trends and CBTC's assessment of the field situations. Preceding the commencement of every trainer's training program, the size and content of the input volume intended for the training is arrived at after much research and brainstorming.

CBTC is a GTZ-NVTS partner and amongst other things provides training too. To implement the NVTS in the North East, CBTC has been chosen as the implementation partner. The CBTC has been appointed as the certifying agency for craft skill workers by DGET, Ministry of Labour, Government of India. A Bamboo course has been initiated in National Institute Open Schooling for distance learning education.

Consultancy

The ideal sequencing of steps projects an enterprise into the enviable stratospheric heights. Though it becomes inconvenient to spot the ideal activities for an enterprise, CBTC is available for the expert guidance to lead a cane and bamboo venture towards prosperity. The offering of CBTC ranges from technology sourcing, techno economic feasibility studies to turnkey solutions for grounding initiatives based on cane and bamboo. It is well conversant with issues as diverse as policy implications on enterprises to optimizing the value chain of existing cane and bamboo units. CBTC's consultancy/turnkey solutions are ideal for state governments, agencies, corporate and entrepreneurs. Consultancy involvement and engagement is customized to meet the requirement of the client organizations.



Product Promotions

Tangible outcome of an enterprise is realized in products and services. A good measure of effort successfully cultivates the consumers' attention and decisions in favour of the outputs. CBTC extends dedicated service in creating the mindscapes among consumers for utility and aesthetic products from cane and bamboo units. Sidestepping the service paradigm, market creation is also held in high esteem as a challenge by CBTC. Proven professional expertise propels the product promotion/market creation services. This service arm is an aggregate of dimensions like routine scan of the macro environment, trend analyses of dynamic market sensibilities and trend studies of domestic and international market. Our expert recommendations and suggestions are ideal for product promotion and business development strategies. A design centre has been set up with the Development Commissioner for Handicrafts, Ministry of Textiles, Government of India.



Networking

For UNDP's "Cane and Bamboo Technological Upgradation and Networking Project", CBTC acts as the secretariat and coordination body of the Network and is the conduit for the network's linkages. The primary target beneficiaries of the Project are the rural poor while the secondary target beneficiaries are the local Governments and non-Government institutions. CBTC identifies and promotes technologies for improving the incomes of crafts persons and small entrepreneurs in the cane and bamboo sector of North-East India; strengthens existing institutions by improving their networking and linking them with specialized institutions in India and abroad; provides training and access to improved technology and standardization to crafts persons; generates economic and legal proposals for enhancing the bamboo sector.

The main collaborating partners of CBTC include: Development Commissioner (Handicrafts), Ministry of Textile, Govt. of India; Building Materials and Promotion Council (BMTPC), New Delhi; Indian Plywood Industry Research & Training Institute (IPIRTI), Bangalore; German Technical Cooperation (GTZ), New Delhi; National Institute of Design (NID), Ahmedabad; China National Bamboo Research Centre (CNBRC), Nanjing; International Fund for Agriculture Development (IFAD), Shillong, India and also international organizations like World Bamboo Organization (WBO), BERC, CNBRC, China.





Implementation

of Cane and Bamboo Technological Upgradation and Networking Project

The Cane and Bamboo Technology Centre (CBTC) was established in Guwahati in the month of August 2000 as a centre/secretariat for implementation of ***“Cane and Bamboo Technological Upgradation and Networking Project”*** under the UNIDO country program for India. The Rationale behind the project was to exploit the Cane and Bamboo Resources of the NE in a sustainable manner for the three E’s as below:

1. Productive **Employment** generation
2. Competitive **Economy**, and
3. Sound **Ecology**

After the conclusion of the Project in March 2004, it has been registered under the Societies (Registration) Act, 1860 on **23rd July, 2004**.

In the light of the bamboo rich geographical area out of which the Cane and Bamboo Technology Centre operates, the response from the people of the region had been

tremendous and this strengthens our resolve to further formulate and implement carefully drawn out strategies to bridge the gap between technology and the craftsmanship in the NE. The CBTC has identified training and capacity building as the prime mover for any organized development of the bamboo sector. We have also embarked on further strengthening the traditional relationship with our neighboring countries through the common ties of bamboo development.

Over the years, the CBTC has developed several core competencies:

- A hub for information, technologies and networking on Bamboo sector
- A vehicle for multi- disciplinary approach to varied application of Cane and Bamboo
- Manpower development and training of craft persons, entrepreneurs and trainers
- Coordinator for technical, legal and economic policies on cane and bamboo
- Consultation to small and medium scale entrepreneurs in the cane and bamboo Industry

CBTC Organization:

The Governing Body under the Chairmanship of Secretary, NEC is the highest decision making body of CBTC Society. Director, CBTC is the Member Secretary of the Governing Body. Mission Director of National Bamboo Mission is the Vice-Chairman and other members include the State Mission Directors of National Bamboo Mission in the NE region, Representatives from Bamboo Enterprises.

The Executive Committee is the main body responsible for over seeing the activities of the CBTC and it is headed by the Member Secretary of the Governing Body and it comprises of about 9 members in all.

The CBTC office has about 20 regular staff and part-time consultants headed by a Director.

The main collaborating partners of CBTC include:

- Development Commissioner (Handicrafts)
- Building Materials and Technology Promotion Council (BMTPC)
- Indian Plywood Industry Research & Training Institute (IPIRTI)
- German Technical Cooperation (GTZ)
- National Institute of Design (NID)
- China Bamboo Research Centre [CBRC], China
- BERC, China

North East Regional Bamboo Mission (NERBaM)

Launched in 2005 by the NEC, the prime objective of NERBaM is to promote holistic growth of the bamboo sector through area based regionally differentiated strategies. The main activities under NERBaM during the reporting period include:

- 1) News Letter, Posters, Brochures etc. for awareness generation and networking**
- 2) Participation in Exhibition outside the NE**
- 3) Design Development**
- 4) Bamboo Demonstration Structure**

1. Newsletter, Manual, Brochures

CBTC has been bringing out news letter on bi-monthly intervals. This news letters not only highlights the plan and achievements of CBTC, but it also tries to cover any development in the cane and Bamboo sector through out the world. However due to shortage of manpower, not more than 3 to 4 news letter could be published annually. It is meant only for private circulation and is being distributed free of cost to all those who matters. On an average, about 1000 copies used to be printed in each issue.

CBTC has brought out quite a good number of publication materials on bamboo related activities. Booklets/publication during 2007-08 are as follows:



- Manual on Nursery raising and, commercial plantation, preservation and primary processing [Assamese and Oriya version]
- Handbook on Bamboo
- One Year of National Bamboo Mission in NE and Eastern region

Training Manual in Bamboo Processing

WORKSHOPS and EXHIBITIONS CBTC attended several in and outside the NE region and power point presentation on different aspects of bamboo are part of the awareness campaign and also to spread awareness on the different technology on bamboo. The CBTC also organized workshops on different theme with respect to bamboo. [The detail is given under Training and Workshop]



2. Participation in Exhibition outside the NE

During the reporting period i.e. 2007-08, CBTC participated in an exhibition held at Geneva, Austria during 3rd – 7th December, 2007. This participation has paved the way for out sourcing of CBTC technical know-how especially to the African countries as per the interest expressed by them and the subsequent visit to CBTC by some of the officials from those countries.

3. Design Development

CBTC engaged two Designers through NID, Ahmedabad for a period of one week during the month of Jan-Feb, 2008. The Designers help the artisans in bringing out prototype handicrafts items made of cane and bamboo. This initiative has greatly



helps in experimenting with new design on cane and bamboo handicrafts items which are acceptable in the market.

4. Bamboo Demonstration Structure

In order to disseminate the awareness and the technology developed by CBTC on the uses of bamboo for construction purposes, several demonstration structures have been constructed in and around Guwahati. During the reporting period, CBTC has constructed bamboo structures in location like Gandhi Mandap, Guwahati and Sualkuchi, North Guwahati.

BMPCs : Bamboo Mat Processing Centres

With the financial assistance of Building Material and Technology Promotion Council (BMTPC), New Delhi, CBTC has constructed four Bamboo Mat Production Centres (BMPC) in three states viz;

- Two BMPC in Mizoram (at Bualpui and Sairang)
- One BMPC in Meghalaya (Sokhar village, Nongpoh)
- One BMPC in Tripura (Kowaifung).

As on date, the building construction works of these centres have been completed and installation of machineries and other accessories are ongoing. The centres are

expected to be commissioned by the end of 2008. Once these centres have been completed, CBTC will commence imparting of training to the beneficiaries on Bamboo technology as well as on maintenance of the machines installed. In fact training activities have been started for the beneficiaries of the Tripura BMPC at Kowaifung. About 20 – 30 beneficiaries were trained by the CBTC trainers at CBTC, Guwahati and at Gurunanak Mechanical Works, Tinsukia.

Projects under DC (Handicrafts)

The following projects have been undertaken by CBTC under the sponsorship of Development Commissioner (Handicrafts), Ministry of Textile, Govt. of India.

Sl. No.	Name of Project	Status (as on Date)
1	Collection & compilation of database on import-export of Cane & Bamboo Crafts	Ongoing
2	Technology mapping & need assessment of the technology requirements in the Cane & Bamboo sector in N.E.India	Ongoing
3	Evaluation of Cane & Bamboo Common Facility Centre (CFC) in the N.E. under AVHY/UNDP Schemes	Concluded
4	Setting up design centre & handicraft museum	60% of the work completed



Livelihood Project

A LIVELIHOOD project has been initiated in collaboration with the department of Tribal Welfare, Govt. of Tripura under the sponsorship of the North Eastern Council (NEC). The project main focuses are the Surrendered Militants. The objective of the project is to empower the population of Tripura by using Bamboo as special purpose vehicle.

As on date, the project implementing body has been constituted with the name “YAKAM” and the building construction work for the production of Mat Board and Corrugated sheet is being completed and installation work on machineries is in the process. Besides, several trainings too have been conducted. About five trainees were taken to IPIRTI, Bangalore for further training and exposure to the bamboo technology. The project can be replicated in other insurgency infested states of the NE provided the CBTC gets the support from the concern state government.

Housing (2007 – 08)

Construction

Project	Location	Sponsor
Endogenous Tourism Project (3 Cottages and 1 No. community hall)	Sualkuchi, Kamrup, Assam	Ministry of Tourism & Kamrup Administration
“Diphlu River Lodge” at Kaziranga (8 Cottages and a restaurant)	Kaziranga Assam	Jungle Travels India
Reception, Lobby and Restaurant building at Kaziranga	Kaziranga Assam	Janambhumi Hotels and Resorts Pvt. Ltd.
Exhibitions stalls [Bamboo based] at SIKKIM, 100+ stalls	Gangtok, SIKKIM	Hort. Dept. of Sikkim
NEC Guest House	New Delhi	NEC



Workshop

Modern Bamboo Structures & Housing workshop, sponsored by BMTPC, was conducted by CBTC at IORA Resort, Kaziranga during 6- 8 March, 2008. A bout 35 bamboo enthusiasts from different walk of life attended the 3 days residential workshop. Shri P.P.Shrivastav, member NEC inaugurated the workshop.

The workshop was quite a success considering the responses received and the interest paid by the participants. It is hope that the workshop spread the message about the viability of bamboo for construction purposes with its advantages of being eco-friendly and easy availability unlike other construction materials.

National Bamboo Mission [NBM], 2007-2008

Bamboo Technical Support Group [BTSG]

As per the approved heads of activities for CBTC in its capacity as the BTSG, the achievements during the reporting period are highlighted as below.

A. Appointment of Experts

For implementing the work assigned to the BTSG, three nos. of experts were approved for the year 2007-2008. However, considering the amount of work load shouldered by the BTSG, the manpower approved for the BTSG is not sufficient to



CBTC SHOWCASES INDIAN BAMBOO IN WORLD FORUM

On a request from the South Asia Regional Office of the United Nations Industrial Development Organisation (UNIDO), the Cane & Bamboo Technology Centre (CBTC), Guwahati set up an exhibition booth at the General Conference of UNIDO held in Vienna, Austria from December 3 to 7, 2007. The displays were conceptualised under the theme '**Poverty Reduction through Productive Activities.**'

The booth, showcasing the Indian bamboo and cane products, was visited among others by **Mr. Kandeh Yumkella**, Director General of UNIDO; **Mr. Ernest Bai Koroma**, President of Sierra Leone; **Mr. Lansana Kouyate**, Prime Minister of Guinea; **Mr. Tertius Zongo**, Prime Minister of Burkina Faso; **Mr. Zeljko Sturanovic**, Prime Minister of Montenegro and **Mr. Fedrick Tluwan Sumaye**, Prime Minister of Tanzania. While appreciating the diversified developmental activities initiated by CBTC through use of cane and bamboo, many of the world leaders requested CBTC to help them in setting up similar technology centres in their countries.

Mr. S.K. Sharma, Indian Ambassador to Austria, said, "This Exhibition displayed how a concerted entrepreneur approach to utilising natural products can translate into so many tangible products – which relate directly to society, to development and to environment. CBTC deserves hearty felicitation for their success and for the spirit of entrepreneurship promoted by them."

In an official handout issued at the Conference, CBTC's concept of '**Bamboo Processing Zone**' was hailed as a major innovation. When put in practice, the initiative will be the first of its kind in the world.

CBTC, with UNIDO as implementing agency, is playing a key role in promoting natural resources such as cane and bamboo in India and transforming them from "*poor man's timber*" into "*green gold*" to change lives. Since its inception in 2000, the Centre has become the focal point for information, technologies and networking in India's cane and bamboo sector.

Today, CBTC has positioned itself as the leading institute of its kind not only in India, but also in the entire South Asia.



carry out the activities assigned efficiently. CBTC has been bearing the cost of availing the manpower assistance from other staff. In this regard, request has been made for strengthening of the BTSG by increasing its manpower.

B. Training to Lead Farmers

As per the approval, the total number of farmers to be trained is 120 for the year 2006-2007 and 400 for the year 2007-2008 and based on which a time table was made for conducting the training to the farmer on Imparting Training to the Lead Farmers on "*Nursery Raising & Commercial Plantation of Bamboo*". As per the requirement of the state, almost all the states have been covered for this purpose and the states and total number of persons being trained during 2006-08 is given as below:

Sl.no.	State
1	Arunachal Pradesh
2	Assam
3	Manipur
4	Meghalaya
5	Mizoram
6	Nagaland
7	Sikkim
8	Tripura
9	Bihar
10	Orissa
TOTAL	455

C. Training Workshop for Field Functionaries

As per approved proposal, the number of targeted trainees of Field Functionaries is 60 for the year 2006-2007 and 300 for the year 2007-2008. In this regard, two combined training were held at NIRD, Guwahati on the 8th & 9th of June, 2007. During this

training, a review meeting of the State Mission Directors on the progress for each individual state was also held in the presence of the Mission Directors of NBM/Horticulture Commissioner, Ministry of Agriculture, Govt. of India. Besides, other training were conducted at different location

Target for 2006-07 : 60

Persons Trained : 85

Target for 2007-08 : 300

Persons Trained till date : 260

Mentioned may be made here that the actual number of participants far exceeded the approved number of trainees during the year 2006-2007. This was mainly due to excess number of participants from Local NGOs and the states of Assam and Sikkim. Both the departments of Agriculture and Forest of these two states had sent their own separate trainees. CBTC managed to accommodate all the participants in spite of the limited budget.

The training for 2007-08 have been conducted as per the fund availability and it is still continuing.

State wise training is conducted as per requisition received and fund available.

D. Training Manual Design & Printing

Training Manual on *“Nursery Raising, Commercial Propagation, Preservation and Primary Processing of Bamboo”* has been prepared and is being completed. For this, the assistance of specialized institutes and Forest Research Institutes has been utilized for making the module more comprehensive. The manual has been sent to all the State Mission Directors (NBM). This manual will be used in the forth coming Lead Farmers’ trainings.

The numbers of copies printed are as follows:

- English : 10, 000 (Ten Thousand)
- Assamese : 1, 000 (One Thousand)
- Hindi : 3, 000 (Three Thousand)
- Oriya : 1,000 (One Thousand)
- Bengali : 3, 000 (Three Thousand)





E. Centralized Publicity Campaign

For wider publicity of the National Bamboo Mission, advertisement has been given to the Newspaper, Magazines and Electronic Media. (A sample copy of the advertisement is enclosed). Besides these mass media, Posters, Brochures and other forms of publicity have been used so as to spread more awareness among the mass and involve as many people as possible in the National Bamboo Mission.

In this regard, a 10 second slot of Audio-visual promo film has been made with the assistance of a specialized Advertising agency. In order to reach the rural mass, this Promo Film is being dubbed into several local languages for the purpose of telecasting in the electronic media of the respective state.

Newspapers to which advertisement has been given are as follows:

Papers	Base	Medium
The Assam Tribune	Guwahati, Assam	English
Ajir Dainik Batori	Guwahati, Assam	Assamese
Poknapham	Imphal, Manipur	Manipuri
The Arunachal Times	Itanagar, Arunachal	English
Dainik Sambad	Agartala, Tripura	Bengali
Mawphor	Shillong, Meghalaya	Khasi
Sikkim Express	Gangtok, Sikkim	English
Vanglaini	Aizawl, Mizoram	Mizo
Nagaland Post	Kohima, Nagaland	English
Dharitri	Bhubhaneswar, Orissa	Oriya
The Times of India	Guwahati, Assam	English

Magazines to which advertisement has been given are as follows:

Magazine	Base	Medium	No. of Issue
North East Panorama	Guwahati	English	One
Sonali Souvenir	Guwahati	English	one
Jibon	Guwahati	Assamese	one
The NE Window	Dimapur	English	one
NE SUN	New Delhi	English	Three
India Travel Directory	Guwahati	Multi Lingual	Three

F. Organizing an International Level Seminar

In order to attract and make the participation from the foreign countries convenient, New Delhi has been chosen as the venue for holding the International Level Seminar and it was held during 15th – 17th April, 2008. The detail programme has been worked out and preparation for the event is ongoing. This event was scheduled in such a way that it coincided with the International Bamboo Expo/festival where in all the states Bamboo Mission are also being invited to show case their activities under NBM and other bamboo related products. Several bamboo based industries and entrepreneurs also participated. A brief detail of the conference is given below:

Basic statistics

- Nos. of invitation/ brochure sent out :1500+
- Nos. of Foreign participants : 42
- Nos. of Indian delegates (officials) : 327
- Nos. of farmers/ entrepreneurs etc. :149
- Nos. of Resource persons [from abroad] : 14

Success Story

Shri Binod Siakia and Shri Lakhiram Barua

from Majuli were trained by CBTC on Cane and Bamboo technology and handicrafts. Just after getting training from CBTC, the duo started manufacturing cane and bamboo crafts items on a small scale unit at their household level. They started showcasing their crafts products at the trade fairs like the International Trade Fairs in Guwahati and the Majuli Trade Fairs organized by the Majuli Kamalasri Impact N.E. Their products are very much appreciated by the people.



They are not just producing the cane and bamboo crafts; in fact they are also transferring their skill and knowledge to other interested person and this way they have played the role of trainers too. A 15 days training program was organized by them in collaboration with the Char Unnayan Kamalasri.

The most encouraging part of their success story is that they are progressing even without receiving any financial assistance from the government or any other agency. Their small unit has now expanded into a 10 members organization in the name of “MAJULI CANE and BAMBOO CENTRE” and they are still growing.

As has been the case with any other local produces of the North East, they are facing marketing constraints due lack of financial support for outside exposure.



• Nos. of Resource persons [Domestic]	: 25
• Nos. of participants at the exhibition	: 55
• Nos. of Conference staff & others	: 50+
• Nos. of Papers presented	: 39
• Nos. of Posters presented	: 56

Sponsors

- NBM, Ministry of Agriculture, Govt. of India
- NEC, Ministry of DoNER, Govt. of India
- NMBA, Dept. of Science and Technology, Govt. of India
- NBDA, Govt. of Nagaland
- Bamboo Mission, Govt. of Mizoram
- Bamboo Mission, Govt. of Manipur
- Bamboo Mission, Govt. of Tripura
- Bamboo Mission, Govt. of Sikkim
- Bamboo Mission, Govt. of Kerala
- CEO, East Khasi Hills, Meghalaya
- BMTPC

G. Exposure & Educational Trip to Bamboo Developed countries

The tour program, led by Shri Reghupaty, Union Minister for Environment & Forest, Govt. of India, took place during 24th - 27th January, 2008. The team visited several places in CHINA well known for Bamboo related activities and also met several experts in the field. The CBTC efforts of coordinating and facilitating the visit really paid off as the visit was quite a success. The visit to China, the most advanced country as far as bamboo sector is concerned, will hopefully go along way in accelerating the pace of development in the bamboo sector of our country.



H. Participation at Domestic Trade Fair

BTSG-CBTC participated in one Domestic trade fair of the KVIC organized by Nagaland Gandhi Ashram during 13 – 17 Nov, 2007 at Mokokchung, Nagaland, India International Trade Fair (IITF) held at Pragati Maiden, New Delhi during 14th – 27th Nov. 2007 under the banner of the National Bamboo Mission and Exhibition at Environment Summit at Kolkata during February 2008 .

The participation of CBTC at the trade fairs served many purposes like – spreading of mass awareness on bamboo and its utility, facilitating the rural artisans from the region in marketing their bamboo based products, facilitating the industry that manufacture bamboo related tools and machineries in showcasing their products and also to facilitate the producers – entrepreneurs – consumers meet.

I. Model Bamboo Handicraft units

Support for one handicraft unit has been sanctioned by the NBM. This amount has been utilized to upgrade and promote some local Bamboo unit manufacturing bamboo product like Bamboo Blinds, Bamboo Mats etc. The unit is in the process of upgrading the machineries so as to make the unit competent to make an inroad to the world market. Besides, designing and innovative handicraft products also have been given attention under this scheme.

J. Model Cluster and Treatment Plant

Two sites have been identified in the state of Assam and formation of the cluster is under process. The detail progress report will be given in the next report.

K. Certification

Certification of planting material has been made mandatory under the NBM scheme for maintaining and ensuring quality products. In this regard, CBTC has been invited by several State Bamboo Agencies to conduct certification process as per NBM norms. Accordingly, the nurseries visited and the bamboo species certified are given below:

Certification of Bamboo Nurseries under NBM during 2007-08

Arunachal Pradesh Total species: 4	Manipur Total species: 3	Mizoram Total species: 11	Nagaland Total species: 10	Uttaranchal Total species: 5
1. M/S Karan Impex (Nursery) Monabari, Lahorijan Sonitpur District Assam Proprietor: Sanjay Kr. Sarma Mobile: 09859007568 2. State Forest Research Institute (SFRI) Van Vihar, Chimpur Itanagar, 3. AVES Agro-forestry Nursery Laluk Karunabari North Lakhimpur Mobile: 09436041065 Proprietor: Nehru Murtem	1. Office of the DFO Southern Forest Division Churachandpur District Manipur 2. Central Bamboo Nursery Aimel Satu, Tamenglong Forest Division, Chandel District, Manipur	1. Bamboo Central Nursery Sairang Dinthar Sairang Aizwal District Mizoram 2. Office of the DFO, Kolsib Buchang Range, Kolasib District Mizoram 3. Hi- Tech Nursery Forest Resource Division Aizawl Mizoram 4. Central Nursery Turial Aizwal Forest Division Mizoram	1. Greenland Nursery Burmecamp, Katkali Road, Nagaland Proprietor : H.K. Chophy 2. Toulazuma Village Dimapur, Nagaland Proprietor : Abel Tureng 3. M/S Vito Nursery 8th Mile, Near EAC Office, Dimapur, Nagaland Proprietor : Vito Angimi Mobile No.: 09436002308 4. Nagaland Bamboo Resource Centre Nagaland Bamboo Development Agency, 6th Mile, Dimapur, Nagaland Phone : 03862241305	1. Ladpur Nursery Ladpur Forest Compartment 2 Mussoorie Forest Division Raipur Forest Range Raipur, Dehradun dist. 2. Sauli Nursery Upper Yamuna Forest Division Naugaon, Dist: Uttarkashi 3. Ambag Nursery Kalsi Forest Division Kasi 1st Forest Range Kalsi, Dist : Dehradun 4. Hi Tech Nursery (Bamboo) Dehradun Forest Division Lachiwala Forest Range Block : Song II District : Dehradun

UNIDO

CBTC OWES its existence to the UNIDO under the ***“Cane and Bamboo Technological Promotion and Networking Project”*** 2000 – 2004. The roadmap that UNIDO laid helped CBTC grow in confidence towards becoming an independent society.

The first phase of the UNIDO project came to an end in 2004. Thereafter, CBTC got registered under the Indian Society (Registration) Act of 1860. It has retained some of the committed employees while taking in more staff with different specialization. During the few years of existence, the society has established itself as an institution for competence and information especially for cane and bamboo. It has been catering to technical and technological equipment needs of the people in the region in collaboration with several renowned institutions and manufacturers within and outside India.

The evaluation team of UNIDO for its projects in India had visited CBTC in 2007. The team’s report labels the project implemented under CBTC as the best for India out of several projects of UNIDO. The resilience of CBTC and its capability to sustain even after the closure of the UNIDO project was greatly appreciated by the UNIDO team. Based on this report, CBTC was invited to showcase their achievement at the general conference of the UNIDO at Geneva in December 2007.

The CBTC-UNIDO second phase project entitled ‘Promoting Livelihood in North-Eastern India: The Cane and Bamboo Networking Project’ was formally inaugurated by Shri Mani Shankar Aiyar, Union Minister for DoNER&Chairman, NEC at a function presided over by Dr. Kandeh Yumkella, Director General of UNIDO on April 9, 2008 in New Delhi. The implementation is expected to commence by mid-2008. CBTC’s association with UNIDO, however, is beyond specific projects. It has outgrown its identity as a recipient of funds to be a supplier of technical expertise for UNIDO’s bamboo projects across the planet.



Training, Workshops & Exhibitions

Below is given the exhaustive list of trainings and workshops conducted and/or participated during 2007-2008.

Name of Training	Date	Venue
Basic Course on Bamboo products sponsored by Ministry of DoNER for 28 participants	27th February, 2007 to for 3 months (upto May,30)	CBTC, Guwahati
Basic Course on Bamboo Products for the participants from ITI, Guwahati	6th – 28th March, 2007	CBTC, Guwahati
Training Workshop on Cane and Bamboo for the participants from DRDA, Morigaon (10 Participants)	27th March, 2007 to 10th April, 2007	CBTC, Guwahati
Conducted a Design Workshop on “Design Development for packaging and Basketry” for 10 participants from Assam	19th – 21st April, 2007	CBTC, Guwahati
A Training Programme conducted on Cane and Bamboo Products and Processing Technology for 31 participants sponsored by CHAR AREAS. Govt. of Assam	4th June – 30th June, 2007	CBTC, Guwahati
Conducted a Training Course for 16 participants from BTC Kokrajhar (Bodoland) areas	25th – 30th June, 2007	NEHHDC, Gorchuk
Four staff of CBTC attended a Training of Trainers programme at Thailand (Huahin) jointly by GTZ, Ministry of Labour, Govt. of India & CBTC	2nd July to 6th July	Thailand (Huahin)
Conducted a Training of Trainers (TOT) Program on “Bamboo Technology” for CRPF Personnel under Livelihood Program Sponsored by CRPF Group Centre, Khanapara, Guwahati	3rd September to 22nd September, 2007	CBTC Premises, Guwahati
Conducted a Training for Clusers on Cluster Formation and Mat Weaving under Livelihood Project of Tripura (14 persons)	3rd October, 2007 to 16th October, 2007	CBTC Presmies
Conducted a Training of Trainers (TOT) on “Bamboo Technology for BSF Personnel under Livelihood Program sponsored by BSF, Padgaon, Assam	1st November, 2007 to 30th November, 2007	CBTC Premises, Guwahati
Conducted a Training Course on Bamboo Technology for 20 participants from the Horticulture Department of Arunachal Pradesh under National Bamboo Mission	18th to 22nd December, 2007	At CBTC Guwahati

Name of Training	Date	Venue
Training on Bamboo Technology from Horticulture Department, A.P.	8th - 12 January, 08	
Cane and Bamboo Product & Processing Technology Cane and Bamboo Product & Processing Technology	18th January to 15th February, 08	Char Areas Development Assam
Training on Cane and Bamboo Products	29th January to 3rd February, 08	OFSSP, Orissa
Cane and Bamboo Product & Processing Technology	21st February to 20th March, 08	Char Areas Development Assam
Cane and Bamboo Product & Processing Technology	10th - 15 March, 08	RFRI, Jorhat, Assam
Artisan Skill upgradation programme through an NGO (SamajDevelopment Society)	24th – 30th March '08	Dharmanagar, North Tripura
Artisan Skill upgradation programme (Sponsored by DRDA, Morigaon)	17th March – 31st March'08	Guwahati
Training on Bamboo Technology	18 Jan. -15th Feb. 2008	CBTC, Guwahati
Training on Bamboo Product and Processing Technology	21 Feb. – 20 March, 2008	CBTC, Guwahati
Training on Bamboo Product and Processing Technology	10 – 15 March, 2008	CBTC, Guwahati
Training on Bamboo Product and Processing Technology	17 – 31 March, 2008	CBTC, Guwahati

Total of about 350 persons were trained within these period

Miscellaneous

Marketing/ Bamboo Bazaar

A new website www.bamboobazar.com has been launched by CBTC in order to promote marketing of the bamboo product from the region. In fact CBTC has been facilitating marketing of the bamboo products – handicrafts and industrial product – through exposure in trade fairs and exhibitions. Many entrepreneurs and artisans have been assisted in this direction.

A container of bamboo materials and bamboo based handicrafts items from the region has been exported to France in April, 2008.

Extract from the UNIDO Evaluation Team Report

This evaluation covers the UNIDO Country Service Framework [CSF] for India from its identification and design phase in 2000 to the evaluation mission carried out in November 2006.

The purpose of the evaluation was to determine the results of the CSF at the end of the five-year planning period with emphasis on relevance, effectiveness and sustainability. At the same time it provides a set of recommendations for future activities as well as a number of lessons learned with wider applicability. The focus of this evaluation was on the assessment of the CSF as an approach and a mechanism for the identification, funding, implementation, and monitoring of UNIDO's programme in India.

Name of Project: Cane & Bamboo Technological Upgradation and Networking Project, 2000 - 2004 (DG/IND/97/160)

The overall development objective of this project was the generation of income and the creation of employment opportunities for cultivators, craftspeople and small entrepreneurs in North East India. New knowledge and know-how was to improve their capabilities. Ecological sustainability through sustainable practices and management of resources was a second development objective of the project as it intended to promote ways in which the potential of cane and bamboo could be used to help conserving the fragile eco-system of the region. The project also wanted to contribute to the realisation of the immense potential of cane and bamboo for propelling local economic development.

The immediate objectives of this project were enhancing access of stakeholders to advanced information, technology and know-how, and the establishment of a technological and resource network that facilitates technological upgrading, provides linkages with the market, financial and credit organisations and with other support agencies, encourages association and cooperation amongst sector constituents and offers a platform for the setting of agendas for research and support. The central element of this strategy was the setting up of the Cane and Bamboo Technological and Resource Centre (CBTC) in the region.

Results

With UNIDO assistance the CBTC has moved the bamboo sector successfully from the traditional handicraft focus to a more industrial approach of manufacturing engineered bamboo products for various applications replacing timber.

Institution building of the project has been very good. The CBTC has developed into a well-known resource centre for bamboo technology, both nationally and internationally. The task for preparing the Detailed Project Report for the National Bamboo Mission was entrusted to the Cane & Bamboo Technology Centre (CBTC) in Guwahati.

The CBTC provided technical assistance and start-up support to more than 40 small and medium-sized bamboo processing and manufacturing enterprises. Products include bamboo flooring, furniture, building construction materials such as mats and boards, window blinds and miscellaneous handicraft products such as bags, table mats, incense sticks, etc. The evaluation team visited two medium-sized commercial production units and both were in their first year of operation. The entrepreneurs acknowledged the assistance provided by the CBTC in terms of technology selection, training, raw material supply, business plan preparation, marketing, etc. Innovative bamboo technology has also been used in housing construction and implemented in several tourist resorts of the North-East. The CBTC has been active also in South-South cooperation, providing training in countries like China, Malaysia, Philippines and also officials from Bhutan.

Sustainability

More than 2 years after project termination, which would have been the end of many other centres, the CBTC is alive and kicking. Work goes on with the financial support from the North-Eastern Council, even without UNIDO assistance.

The CBTC has put Bamboo on the political agenda, and its services are sought after by many institutions in India. There is a continuous demand for training from both inside India as well as from abroad, which is not only a sign for effectiveness, but also indicates sustainability. In cooperation with GTZ a new training course was developed leading to a certificate of national recognition (approved by the Ministry of Employment and Training).

Some fees are charged for the services offered by the CBTC, but they are not fully covering the cost yet. The strategy of the CBTC for financial sustainability is a mixed one, charging fees wherever possible and mobilising government/donor funds for other activities.

Recommendations

- The project should be used as a model case for technology-led interventions.
- The proposal for the second project phase is strongly recommended for approval, subject to an updated revision in light of recent developments. It should be complementary to the activities and interventions of the National Bamboo Mission and the National Mission for Bamboo Application.
- Emphasis of future UNIDO support should be on innovation, strengthening of technological capacities and international exposure of firms and institutions.



Shri LK Advani, the then Dy. Prime Minister, inaugurating Brahmaputra Beach Festival-2003



Shri LK Advani and Lt.Gen. (Retd) Shri S. K. Sinha, the then Governor of Assam & Chairman, NEC with CBTC officials at the Brahmaputra Beach Festival-2003



Former CMs of Arunachal Pradesh Shri Mukut Mithi & Nagaland Shri S. C. Jamir (presently Governor of Maharashtra) at an Exhibition on bamboo



Former minister for DoNER, Dr. Arun Shourie & Former CM, Meghalaya Dr. Khonglam at a bamboo display



Indian Ambassador to Bhutan Mr. Shudhir Vyas at a bamboo expo in Thimpu -2006



Shri Neiphiu Rio, CM Nagaland at the inauguration of Bamboo Cafeteria, Kohima



Director, CBTC flanked by the then Secy. NEC, Shri Kamal Taori, IAS and Shri Ajay Singh (PVSM), former Governor of Assam -cum- Chairman, NEC at a function at Guwahati



Smt. Vasundhara Raje, former Union Minister (SSI) and Dr. Jayanta Madhab, former CMD, NEDFI at CBTC office



1. Mr. Kamleswar Ojha, Director NBM visited CBTC in 2008
2. Shri R. Mishra, Jt. Secy. DoNER at CBTC Resource Centre in 2008
3. Dr. ML Choudhury, Mission Director, NBM visiting CBTC
4. Shri Reghupaty, MoS, Ministry of Env. & Forest and his entourage with Chinese officials during Bamboo Study Tour in 2008
5. Kamlesh Sharma, DIG, BSF visiting CBTC
6. Ghana High Commissioner to India and his entourage at CBTC conference hall in 2008
7. Dr. Mamoni Raisom Goswami visited CBTC stall at NE Expo-2005, New Delhi

Cane & Bamboo Technology Centre

Impacts & Achievements

Since its inception in 2000, CBTC has created a visible impact, not only in Northeast India, but also its waves are being felt across India and overseas – South East Asia in particular. At CBTC's initiative, almost all the States in the North Eastern Region have enacted and adopted Bamboo Policies. Most of these policies take into account the fact that Bamboo is a 'resource' and that it can be used as an 'enterprise'. CBTC despite all odds and the ethnic and cultural diversity that exists within the region, has managed to generate mass awareness about the prospects of bamboo not only at the grass root level but also at the highest policy making level.

- Over the years, the CBTC has singularly carried on with the task of generating awareness about the cane and bamboo sector. The seminars and workshops,



which have been conducted by the CBTC have not only generated awareness but have brought about a paradigm shift in the minds of the people, laying emphasis on the industrialization of the bamboo sector and the urgent need to utilize the vast resources of cane and bamboo in the region.

- Owing to the thrust given to the sector by CBTC, each and every State Government of the region has now earmarked funds under their budgets for development of the cane and bamboo sector. The North

Eastern Council, which is the apex body for development of the region, has evinced keen interest in the sector has launched a regional bamboo mission under the banner of NERBaM.

- Because of constant promptings by the CBTC, the States of Assam, Arunachal Pradesh, Nagaland and Meghalaya are now formulating policies for the bamboo sector. It is worth noting that the States of Mizoram and Tripura already have a Bamboo Policy and have thus become the first States in the country to do so.

In fact, what had not been achieved in the last fifty odd years insofar as cane and

bamboo sector is concerned, CBTC has been able to make a beginning and continue to provide the thrust for a concerted effort towards harnessing the untapped potential. The centre's has quite a few milestones and achievements to its credit.

- Over the years, a number of Policy makers, officials and entrepreneurs have been sent for training to various institutes in China. Majority of them have excelled in their training and are successful in setting up large industrial units on Bamboo Floor Board and Bamboo Concrete Forming Board.
- Over 2000 artisans have been trained in the specialized courses on Cane and Bamboo Machine Tools Operation, Handicrafts, Jig Making, etc. from all over Northeastern State and institutions.
- The CBTC is leading the way in creating awareness about the vexed issue of Bamboo Flowering. An Action Plan has also been drawn up to mitigate the devastating consequences of the phenomenon with Rain Forest Research Institute, Jorhat.
- In order to enable the entrepreneurs to set up a small and medium bamboo and cane projects in Northeast India, courses are conducted in collaboration with Indian Institute of Entrepreneurship, Guwahati in the areas of management, finance, project formulation etc.





- Based on the advice by the CBTC, the Hindustan Paper Corporation Ltd. has come up with the concept of setting up captive plantations under their Farm Forestry Scheme. A number of Entrepreneurs and Industrialists have also promoted the concept using new methods of plantation, management and harvesting.
- CBTC's concept of setting up a 'Bamboo Processing Zone' is considered as a major innovation and every State in the region is on the way to set up one such Zone.
- The CBTC has also set up a Mother Processing Facility at Guwahati where machines for both primary and secondary processing are being installed. The Centre trains a number of artisans, craftsmen etc., and also conduct research on process parameters, etc.
- The CBTC conducts a technology fair branded BAMTECH which is attended by participants from 10 countries apart from a host of Indian delegates. CBTC has also organized a bamboo festival called BAMFEST at Guwahati, Shillong and Agartala which have been great successes.
- Aimed at accumulating and disseminating knowledge, CBTC has published several technical papers and hand toolkits which are made available to all. More publications are in the pipeline.

National Bamboo Mission

Realizing the immense potential of bamboo, both locally and overseas, India has initiated focused efforts and investments are being directed towards this sector. At the initiative of CBTC, and after preparation of a Detailed Project Report, the National Bamboo Mission (NBM) was launched and implemented by the Department of Agriculture and Cooperation under the Ministry of Agriculture, Government of India. NBM envisages enhancing the area under bamboo plantation of selected species with intensive management so that the yield improves six-fold from the present production. The focus of the NBM is the Northeast India.

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.



Key Elements of the National Bamboo Mission

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

CBTC has been designated as the Bamboo Technology Support Group (BTSG) of the National Bamboo Mission to provide technical assistance to the states of Eastern and North Eastern states of India. As such, CBTC's roles and functions include:

- Visiting the concerned States frequently to provide guidance in policy, organizational and technical matters;
- Compiling materials for conduct of regional workshops in respect of bamboo plantations, handicraft, bamboo marketing and exports;
- Conducting studies on different aspects of bamboo;
- Assisting the States in capacity building programs;
- Undertaking publicity campaigns to promote the Mission objectives;
- Documenting and disseminating case studies of success stories;
- Conducting specialized Training Programs at the Regional Level;
- Networking with various stakeholders and Institutes/ Organizations/ Agencies, both in India and abroad.

With its dedicated and skilled personnel, CBTC, today, has developed into a well-known resource centre for bamboo technology, both in India and abroad. CBTC has closely worked with the BTN and also with the GTZ for networking and skill development activities respectively.



Exposure cum Educative Trip by High Level Delegation Team from National Bamboo Mission (NBM) to China

Under the National Bamboo Mission, an Apex Committee has been formed under the Chairmanship of the Hon'ble Agriculture Minister, Government of India to oversee the Mission activities and to act as the Apex Policy Making Body and to conduct Monitoring and Evaluation. In the second Apex Committee Meeting held on 4th July, 2007, the Committee decided to send a delegation under the leadership of Hon'ble Minister of State for Forest & Environment, Government of India to study the policies adopted in China and actions being undertaken, technological development in both the plantation and processing sector, enterprise development activities being carried out and the like. In accordance with this decision, the following members' constituting the delegation was made an exposure trip to China:

1. Mr. Sevugan Regupathy, Minister of State for Environment & Forests, Government of India
2. Mr. Rakibul Hussain, Minister (Forest, Tourism & PR), State govt. of Assam
3. Mr. Babanrao Bhikaji Pachpute, Minister (Forests), State govt. of Maharashtra
4. Dr. Mewa Lal Choudhury, Horticulture Commissioner & Mission Director-NBM, Ministry of Agriculture, Govt. of India
5. Mr. Govindan Singaravelu, Addl. P.S. to Minister (E&F), Govt. of India
6. Mr. S.T.S. Lepcha, State Mission Director, Uttaranchal Bamboo & Fiber Development Board, Uttarakhand
7. Mr. Kamesh Salam, Director, Cane and Bamboo Technology Centre and Bamboo Technical Support Group of National Bamboo Mission (NBM), Guwahati



1. Purpose of Visit

India is the second richest bamboo resource country in the world only next to China. But, because of Chinese Government's Policy decisions on the development of the bamboo sector for livelihood development, R & D on value added products and entrepreneurship, today China is the leading country in the world as far as value added world bamboo market is concerned. It is estimated that the world bamboo



product trade is USD 7.5 billion and out of which China contributes to about USD 5 billion annually. (Source: Mekong). The productivity of bamboo plantations are very high compared to India. The yield of bamboo timber of commercial plantation of selected species of bamboo in China is about 25 tonnes (avg.) per hectare per annum. These plantations are managed with modern intensive management (using fertilisers, irrigation, mulching, weeding, soil loosening, etc). As per the utility and end use whether planted for shoot, engineered products, stick based products as per needs, the plantations are managed and the benefits are derived

from plantations benefiting the rural masses of China.

In India, though we have bamboo resources in an area of about 9 million hectares but the yield is about 3 tonnes per hectare per annum as these are not intensively managed and mainly occurs in the forest land. In order to improve the yield with the practice of intensive management in new areas/improve the existing stock, the Government of India's initiative to launch the ambitious "National Bamboo Mission" is laudable. This is a beginning to ensure quality supply of raw materials to the up coming bamboo processing industries.

Considering China's growth in the bamboo sector, its experience and expertise in this sector, this visit aims to learn from China's successes, visit the plantations, bamboo processing factories, bamboo handicraft units and to discuss and exchanges ideas/explore the possibilities of co-operation between the two countries for the development of this upcoming sector for the all round achievement of the Millennium goals especially related to the CDM

Discussions were had on the following areas

1. Policy decisions was taken by the University of Nanjing to encourage different communities / countries on bamboo plantation and the processing industries, the R & D activities undertaken to disseminate and bridge the benefits of R & D results with the common people and the like across the globe. The delegation had talks and discussion on transferring the technology mainly on bamboo silvi culture / nursery techniques and Bamboo plantation mainly to increase the productivity. It was requested to the University to provide support for developing bamboo sector in India context.
2. Discussion was held with University and Bamboo processing entrepreneurs for transferring some selected bamboo based processing technologies including chemical processing, preservation and treatment to India and adapting them to suit local conditions and the industries / university has agreed to provide

assistance on these lines.

3. It was also discussed for conducting trials / test producing of latest bamboo based products like strand woven boards, container floors, wood substitute industrial products, briquettes / bamboo charcoal, etc. from different Indian bamboo species and standardization of the process parameters and transferring them for producing in India.
4. To develop the bamboo sector and initiating the bamboo based industrial growth it was discussed with many Chinese entrepreneurs who already have bamboo based enterprises in China to set up Joint Venture bamboo based companies in India.
5. For developing the human resource pool to take up bamboo based enterprise activities, discussion was held with University, BERC and Bamboo factories for providing training to Indian trainers, undertake exchange programs in University, BERC or bamboo factories in China and India to cross learn and transfer the technology for adaption in the field.

The Delegation had interaction with the following Chinese Scientists/Officials, Industry persons:

Prof. Cao Fuliang	: Vice President of Nanjing Forestry University
Prof. Zhang Qisheng	: Member of Chinese Academy of Engineering
Prof. Ding Yulong	: Director of Bamboo Research Institute
Prof. Wu Zhihui	: Dean of College of Wood Science & Technology
Prof. Wang Hao	: Dean of College of Landscape Architecture
Prof. Huang Xin	: Associate Dean of College of International Education
Mrs. Wang Qingyu	: Associate Professor, Director of International



	Programs of Nanjing Forestry University
Assoc. Prof. Zhang Xiaodong	: Bamboo Engineering and Research Centre of Nanjing Forestry University
Dr. Guan Mingjie	: Bamboo Engineering and Research Centre of Nanjing Forestry University
Ms. Ye Haizhen	: Deputy County Magistrate, Anji County.
Prof. Hong Bin	: Nanjing Forestry University, Nanjing
Prof. Wei Fang	: Zhejiang Forestry University
Prof./Dr. Yanru Zeng	: Zhejiang Forestry University
Prof. Wei Fang	: Zhejiang Forestry University
Mr. Wang Shihua	: Zhejiang Forestry University
Mr. Prakash Gupta	: Consul, Indian Consulate, Shanghai

Conclusions and Recommendations

The trip to China related to Bamboo sector development was very successful. In fact, looking at the massive area under bamboo plantation, mechanized handicraft and factories for engineered bamboo based product development, the supply-chain management was an eye opener for us. It is amazing to learn that within 2 decades of initiatives, China have been able to convert their traditional bamboo based handicrafts sector in to a modern day mechanized one including introduction of new bamboo based engineered products through continuous research and development which have been accepted by the global consumers. They are exporting bamboo based products to more than 70 countries. The present turnover from bamboo based industries in China is more than Rs. 20,000 crore annually employing more than 7 lakh nos. directly. In 2006, China had 3600 bamboo based processing industries which increased from 2300 in 2002. Out of this 3600, there are about 250 units producing bamboo floorings alone with a total investment of over US\$ 160 million and exporting to more than 70 countries worldwide.

Due to their Policy measures, bamboo has been kept in priority list, land lease to the farmers has been extended to 30 years for growing bamboo with the provision to enhance more. It is planned in such a way, that the bamboo pre processing or primary processing centers are established in rural areas in close proximity to bamboo plantations mainly to minimize the transportation cost and helping to build rural industrialization. The rural or village industries are family based and linked to the collection centers or industries purchasing the processed bamboo. The supply chain mechanisms with cost implications are fixed at every stage, the quality, specification and treatment of materials are ensured at every stage of processing to ensure the supply of quality and consistent raw material supply to industries. In country (District) like Anji, the farmers earn more than 40% of their total income from Bamboo, Further; their R&D institutes are in the job to produce new

generation bamboo based products doing continuous action research on bamboo growing, processing, process minimization, preservation and treatment, etc on all the aspects required for the bamboo based industry.

One of the interesting learning that we had witnessed there is the production of bamboo charcoal and their modern day utilization. These charcoals are used right from burning for barbecue to high grade filter candles including shield to electro-magnetic radiation. Even charcoal is used in cooking, laundry, as adsorbent of odours in the refrigerators, as mattresses for sleeping, pillows and the like. Even charcoal is used to restore soil conditions. The smoke that is generated while making charcoal is cooled which forms a liquid called “Bamboo Vinegar” which has more than 200 chemical constituents. This Vinegar is used for various purposes including treatment of skin diseases like psoriasis, insecticides and pesticides, toilet cleaners etc. The latest development in the Bamboo sector is probably production of eco-friendly bamboo fibers which are further processed and weaved into cloths with special characteristic.

Our country too, as projected by the Planning Commission Report, could achieve a turnover of about Rs. 26,000 Crore in a span of 15 years from hence, provided proper policy measures are adopted and entrepreneurship is encouraged into this sector. We feel that bamboo, though, re-invented lately in our country, still can march ahead and achieve the outcomes projected by the Planning Commission Report. But, we need to act fast and a special bamboo policy with priority to the North Eastern Region may be framed which will ultimately become the road-map. Like China looking at the prospect of bamboo as a new generation green material, we should also declare bamboo as a “Sunrise Industry”.

For the Development of Bamboo Sector in India, the Chinese model of bamboo development can be adopted for India and can be replicated with modifications to suit the Indian context.

- 1) Setting up of Anji County Model with a District/Block in India on a pilot basis for which it may be replicated in other parts of the country preferably under “Public-Private Partnership” (PPP) Model.
- 2) The Indian Embassy in Beijing/Indian Consulate in Beijing in Shanghai to facilitate translation of scientific Books on Bamboo so that this can be translated into English and can be made available for Indian Scholars and Bamboo Researchers for the benefit of National Bamboo Mission.
- 3) The National Bamboo Mission (NBM) should



sign a Memorandum of Understanding (MoU) with various Bamboo Research Institutes in China for promoting mutual understanding and cooperation for the development of Bamboo sector within 2 (two) nations for which diplomatic hannels could be initiated at the earliest

- 4) NBM should initiate to invite potential entrepreneurs from China to India for processing of sympodial Bamboo and also to initiate investment and joint venture with Indian counterparts
- 5) NBM should initiate to promote cultivation of monopodial Bamboo in areas which is geo-climatically similar with the Bamboo growing areas in China for promoting cultivation of monopodial Bamboo.

It was also suggested to establish 4 action research institutions in India (North, North east, South and Central India) specializing on bamboo in line with Chinese model to conduct continuous action research and development on different aspects of bamboo starting from nursery, plantation to entire range of value additions to provide handholding support required for the farmers, entrepreneurs, industries and to the all involved in the supply chain to promote the bamboo sector as a whole.

For the development and adaptation of models, it is required to send policy makers, rural development practitioners, and entrepreneurs from India to learn about the industrial technologies and potential of bamboo in sustainable development, and to study the Chinese experiences elaborating development strategies and sustainable management of enterprises. It is required to have series of exposure visits/ exchange programs between India and China on policy level, training courses, entrepreneur level, the details are as below:

FUTURE Collaboration

Proposed Exposure visit to CHINA (ADVANCE STUDY IN BAMBOO)

A) Duration – 5 Days

Target Group – State Mission Director, Principal Chief Conservator of Forests, Head of the Departments, Senior Scientists

Objective – To have exposure of bamboo sector development and policies relating to the same

Impact – Policy development in India regarding Bamboo Sector

B) Study tour to CHINA

Duration – 15 Days

Target Group – Chief Conservator of Forests/ Conservator of Forests, Director,

Horticulture of the State, Director, Agriculture of the State.

Objective – To view and study the Bamboo development in the China and study the implementation phase.

Impact – Modify the system in context of India, help in policy making & help in implementation.

C) Tailor Made Capsule Course in China

Duration – 3 Months

Target Group – Probable entrepreneurs, Divisional Forest Officers, Assistant Conservator of Forests, Range Officers, Junior Scientists etc.

Objective – To learn Nursery development techniques, plantation management, Post Harvesting practices & Value addition

Impact – Learned techniques, ideas modify in Indian system, work as a trainer for training other staff in the country.

D) Long term working with China

Work and learning on different sympodial Indian Bamboo and its various aspects.

Bring China's entrepreneur to India in the field value addition factories with Joint Ventures.

E) Exchange Scholar/Student between India & China from Universities who are working in the Bamboo Sector

F) Send promising entrepreneur to China who are interested to work and committed to develop Bamboo Sector in India

CBTC Showcases Indian Bamboo in World Forum

On a request from the South Asia Regional Office of the United Nations Industrial Development Organisation (UNIDO), the Cane & Bamboo Technology Centre (CBTC), Guwahati set up an exhibition booth at the General Conference of UNIDO held in Vienna, Austria from December 3 to 7, 2007. The displays were conceptualised under the theme '*Poverty Reduction through Productive Activities.*'

The booth, showcasing the Indian bamboo and cane products, was visited among others by

- Mr. Kandeh Yumkella, Director General of UNIDO;
- Mr. Ernest Bai Koroma, President of Sierra Leone;
- Mr. Lansana Kouyate, Prime Minister of Guinea;
- Mr. Tertius Zongo, Prime Minister of Burkina Faso;
- Mr. Zeljko Sturanovic, Prime Minister of Montenegro and
- Mr. Fedrick Tluwan Sumaye, Prime Minister of Tanzania.

While appreciating the diversified developmental activities initiated by CBTC through use of cane and bamboo, many of the world leaders requested CBTC to help them in setting up similar technology centres in their countries.

"This Exhibition displayed how a concerted entrepreneur approach to utilising natural products can translate into so many tangible products – which relate





directly to society, to development and to environment. CBTC deserves hearty felicitation for their success and for the spirit of entrepreneurship promoted by them" was the remarks given by none other than Mr. S.K. Sharma, Indian Ambassador to Austria.

In an official handout issued at the Conference, CBTC's concept of '*Bamboo Processing Zone*' was hailed as a major innovation. When put in practice, the initiative will be the first of its kind in the world.

CBTC, with UNIDO as implementing agency, is playing a key role in promoting natural resources such as cane and bamboo in India and transforming them from "*poor man's timber*" into "*green gold*" to change lives. Since its inception in 2000, the Centre has become the focal point for information, technologies and networking in India's cane and bamboo sector.

Today, CBTC has positioned itself as the leading institute of its kind not only in India, but also in the entire South Asia.

In this connection, the 2nd Phase of the CBTC-UNIDO project "Promoting Livelihood in North-Eastern India: The Cane and Bamboo Networking Project" was formally inaugurated by Shri Mani Shankar Aiyar, Hon'ble Minister for DoNER & Chairman, North Eastern Council, Government of India, at a function presided over by Dr. Kandeh Yumkella, Director General of UNIDO on 9th April, 2007 at UN House, 55, Lodhi Estate, New Delhi.



Centre okays funds for bamboo research

GUWAHATI, March 10 - The National Steering Committee (NSC) of the National Bamboo Mission (NBM), held under the chairmanship of the Secretary (Agriculture & Co-operation), Govt of India, on January 17, 2008, had approved an amount of Rs 36 lakh for establishment of an R&D centre on bamboo cultivation for non-forest areas at Biswanath College of Agriculture (BCA) under the Assam Agriculture University, according to Kamesh Salam, Director, Cane and Bamboo Technology Centre, Guwahati and member of NSC. The project proposal was initiated by Dr Tapan Dutta, retired professor, Assam Agriculture University and Agriculture adviser to the Chief Minister of Assam. Since there are two compo-

nents under NBM, separately for forest and on non-forest areas, the AAU centre will serve for non-forest areas, whereas Rain Forest Research Institute (RFRI) Jorhat, which is expected to receive Rs 49 lakh will strengthen their R&D activities primarily in forest areas. He was appreciate the enthusiastic support of the scientist of AAU.

The BCA Centre will work on development, standardisation and dissemination of technologies for improvement of productivity and production of bamboo and bamboo-based cropping system, whereas RFRI will devote on sustainable development of quality bamboo resource for employment generation and socio-economic development of Eastern

serve the cause of centrally sponsored Megha project of the National Bamboo Mission with an outlay of Rs 568.23 crore being implemented in the 11th plan period.

On enquiry, Dr. Tapan Dutta, Agriculture Adviser to Chief Minister, Assam stated that commercial cultivation of bamboo in farmers field with a sanctioned amount of Rs 5.19 lakh from National Mission on Bamboo Application, being implemented through the Deputy Commissioner of Jorhat district as a collaborative programme between RFRI and District Agricultural Office. His experience will help in implementation.

est areas". He also praised the Ministry of Agriculture, GPI, for undertaking such an economic-upliftment, environmentally-friendly farmers' oriented programme. He said that Sri Lanka is a country with a rich natural heritage and it is the responsibility of the Government to protect and preserve it.

Manual on Bamboo released

Manual on Bamboo reforestation

The CTBT will also be
such manuals in
to, Khazi, Oriya, Bengali
tional languages within a

Forestry research project needs seeds from Northeast

Kenya to get bamboo tips

ROOPAK GOSWAMI

Guwahati, July 2: Kenya will get seeds of various bamboo species from the Northeast in lieu of tips on tea cultivation to Assam. Seeds are being

The seeds are being sourced from different places of the region and being sent to the African country through Cane and Bamboo Technology Centre (CBTC), Guwahati, for a project of Kenya Forestry Research Institute (Kefri).

"They have requested us for 50 kg of bamboo seeds and the demand will be increased later. The climatic conditions of the two regions are conducive to bamboo plants."

The species in demand are *Melocanna baccifera*, *Dendrocalamus asper* and *Bamboo bambusa*.

bambusa. "They s...ted seeds from a
reliable s...ance they

"Such orders will definitely help the Northeast to expand its market in the global bamboo sector," the official said.

Even Bhutan had expressed interest in training



A man sells bamboo seeds
in Tezpur

Bamboo mission

Bamboo mission

The centrally sponsored scheme worth Rs 568.23 crore was approved by the Union Cabinet on October, 2006 to help the National Bamboo Mission achieve its plan of creating 8.6 million jobs in the help 5 million agricultural families cross poverty line in the Eleventh plan period and to enhance the nation's share in global bamboo market from existing 4 per cent to 27 per cent within the period along with environmental rehabilitation is expected to generate a far-reaching impact in the economy of North-eastern region. This is not only because the resource-base of the region is highly rich but also cause an enthusiastic zeal to carry forward the mission already in sight in north-eastern States. The national steering committee had released Rs 66 crore for the 2006-07 for the region to develop technology and grow bamboo-based industry for which the Cane and Technology Centre (CBTC) of Guwahati has started. It may be noted that the National Bamboo Mission has four functional components, viz, research and development, plantation, handicrafts and marketing. To support the mission, four zonal bamboo technology centres (ZBTCs) have been identified in the country.

Replace wood with bamboo : ASSOCHAM

NEW DELHI, OCT 28
— Press Depart.

(UN): Government Departments can save nearly Rs. 7,000 crore per year if articles made of bamboo and jute waste take place of wood and wooden products, an industry body said.

Wood and wooden items can easily be replaced by products made out of bamboo and jute wastes, forming a composite technology supported by biotech and save up

Nanotech and...
Rs 7,000 crore per ann...
as their material co...
would not exceed bey...
Rs 3,000 crore for var...
government departm...

the Paper brought out by the ASSOCHAM on 'Waste to Wealth through Innovative Technologies' says.

The findings further highlighted that besides CPWD, PWD, Railway and Defence, National Building Construction Co. (NBCC), pa

poration (NBCC), military services such as BSF, ITBP, and Central Guard all put together Rs 10,000 crore of work and wooden products annum.

Central Public Works
departments spends
2,000 crore on pro
cessing of wood and wo

products like doors, windows, ventilators, ceiling, partition, flooring and different kind of pre-fabricated shelters and corrugated roofing sheets per annum. ASSOCHAM president Venugopal N Dhoot said.

The state's PWD's estimated purchases of above products is estimated at Rs 3,000 crore as against Rs 2,000 crore for the Railways, defence and military engineering services purchases of above products that are respectively estimated at Rs 2,000 crore and Rs 1,000 crore, Mr Dhoot added.

Implement Bamboo Mission in NC Hills

By A Staff Reporter
GUWAHATI, Oct 18 - The Governor Lt Gen Ajai Singh has laid stress on the potential of employment generation in the North Cachar Hills district through bamboo cultivation and laid emphasis on the implementation of National Bamboo Mission.

After assuming the charge of the NC Hills Autonomous Council following the postponement of the polls to the Council, the Governor held a

series of meetings with the CMD and other senior officials of the Hindustan Paper Corporation (HPC) for supply of bamboo to the paper mills of the corporation from the hill

Governor on job creation

district, but so far, his efforts have not yielded the desired results.

Council sources revealed that former Chief Executive Member of the Council, Purnendu Langthasa had ap-

proached the Union Minister in charge of Heavy Industries, Santosh Mohan Dev and at his initiative, an agreement was signed between the Council and the HPC in 2006 to supply bam-

HPC cancelled the bamboo supply order to the Council in June this year, forcing the Council to file a case in the Gauhati High Court. The Court, in the meantime, issued an interim order in favour of the Council, Council sources said.

The Council is also planning to move Santosh Mohan Dev seeking his intervention in the matter, as it was at the initiative of the Union Minister the bamboo supply agreement

Training prog on bamboo plantation

GUWAHATI, June 7: A two-day training programme on Bamboo Nursery Raising and Commercial Plantation for the field functionaries will start tomorrow at NIRD, Khanapara under the National Bamboo Mission. Besides the participants from North-east states, participants of Orissa will also participate in the training programme.

Dr RK Rathore, National Bamboo Mission and Mission Director, Dr ML Karmakar and Kamesh Salam, Director of Cane and Bamboo Technology Centre will present at the session. The inaugural session will be held at 11 AM. Additional Secretary of Ministry of Agriculture, SM Desalpine and member of north-eastern region, PP Srivastav will also present on the

Bamboo from North-east to dazzle at UN

GUWAHATI, July 19 (IANS) - The North-east is set to shine as the premier platform and arena for showcasing its success in the United Nations (UN) forum.

The region is being showcased in the UN Industrial Development Organisation (UNIDO) summit in Vienna, Austria, on September 19-20.

This place of pride for the North-east is being showcased in the United Nations Framework Convention on Climate Change (UNFCCC) summit in Bonn, Germany, on September 20-21.

On the official programme of the UNFCCC, the North-east is being showcased in the United Nations Framework Convention on Climate Change (UNFCCC) summit in Bonn, Germany, on September 20-21.

Department of Science & Technology (DST), Government of India, was the nodding agency for the project.

UNIDO was assigned as implementing agency for the North-eastern Development Corporation (NEDC) to implement the project.

The project is being implemented by the North-eastern Development Corporation (NEDC) to implement the project.

Development Goals of the UN, namely, poverty alleviation and sustainable environment.

The CBTC has earned the fame for its role in the development of bamboo as a source of income and employment for the people of the North-east.

The project is being implemented by the North-eastern Development Corporation (NEDC) to implement the project.

It is also being showcased in the United Nations Framework Convention on Climate Change (UNFCCC) summit in Bonn, Germany, on September 20-21.

The project is being implemented by the North-eastern Development Corporation (NEDC) to implement the project.

Training programme on bamboo mission begins

OUR CORRESPONDENT
GUWAHATI, June 16: Kerala is number one rubber producing state of the country. But Tripura is fast catching up with Kerala. This was disclosed by Mr. P.P. Shrivastav, Member, North Eastern Council, in his Presidential address at the inauguration of the two day training programme on Bamboo Nursery Raising and Commercial Plantation under the National Bamboo Mission held at the NIRD auditorium in Guwahati on June 8 and 9. Mr. Shrivastav felt that what Tripura has done

with rubber, all the North Eastern States can do with Bamboo. Addressing the participants, Mr. M.L. Choudhury, Mission Director, National Bamboo Mission, cautioned officials to have a strict system of certification of seeds and planting materials otherwise poor quality items will harm the farmers while setting up nurseries in the region.

Mr. S.M. Desalpine, Additional Secretary, Agriculture, Government of India, quoted the Chinese model and said that while China produced

20 tonnes of bamboo per hectare, India's figure per hectare was only 2 tonnes.

Mr. R.K. Choudhury, Forest Officer, Itanagar, Assam, said that the bamboo mission is a part of an ongoing programme to develop the bamboo sector in the North-east.

Central push for bamboo technology

Guwahati: Farmers in Gangtok, Alimul, Imphal, Shillong, Kolkata and Bhubaneswar are getting comprehensive training on bamboo technology under the National Bamboo Mission (NBM). It's a part of an ongoing programme to develop the bamboo sector in the North-east.



and audio-visual publicity campaign has also been launched by the BTSG to spread awareness among people and involve as many stakeholders as possible in the programme.

Plans are also afoot to organise an international seminar in the near future, besides deputation of state mission directors and officials of NBM to visit some bamboo-intensive Asian countries.

The National Level Steering Committee has already released Rs 66.70 crore for 2005-2007 to support the bamboo mission in the North-east.

Auditors' Report

We have audited the attached Balance Sheet of M/s Cane & Bamboo Technology Centre, Mother Teresa Road, Guwahati-24, as at 31st March 2008 and the annexed Income and Expenditure Account for the year ended on that date. These financial statements are the responsibilities of the society's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

We report that:

1. In our opinion and to the best of our information and according to the explanation given to us, the accounts read with the significant accounting policies and notes thereon, give the information in the manner so required under Societies Registration Act, 1860 and give true & fair view of the statement of accounts of the Society.
 - a. In the case of Balance Sheet, of the State of affairs of the Society as at 31st March 2008,
 - b. in the case of the Income and Expenditure Account, of the Income of the Society for the year ended on that date.
2. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit.
3. In our opinion, proper books of accounts have been maintained so far as appears from our examination of those books.
4. The Balance Sheet and Income & Expenditure Account referred to in this report are in agreement with the books of Accounts.
5. In our opinion, the Balance Sheet and Income & Expenditure Account dealt with by this report have been prepared in compliance with the accounting standards issued by the Institute of Chartered Accountants of India, to the extent applicable.

Dated, Guwahati
The 1st August 2008.

For, Amlan Bhadra & Associates
Chartered Accountants
Amlan Bhadra

BALANCE SHEET AS AT 31-03-2008

LIABILITIES AND CAPITAL	SCHEDULE	AMOUNT	ASSETS	SCHEDULE	AMOUNT
CAPITAL FUND			FIXED ASSETS	C	
Opening Balance	7,754,281.89		GROSS BLOCK :		10,199,242.38
Add : : Excess of Income			Less : Depreciation		<u>4,295,779.11</u>
Expenditure	87,215.77	7,841,497.66	NET BLOCK		5,903,463.27
GRANT IN AID:	A		WORK IN PROGRESS	D	
i) NERBAM	3,141,399.40		D C (Handicrafts) Project	3,306,431.00	
ii) Development Commissioner (H)	4,785,459.00		Tripura Livelihood Project	7,289,400.00	
iii) Ministry of Agriculture (NBM)	1,102,084.17				
iv) Director of Employment And					
Craftsmen Training	2,16,026.00		TOOL KIT/MACHINE Arrangement	9,65,000.00	
v) BMTPC	<u>1,20,630.00</u>	9,365,598.57	BAMBOO BAZAR:	2,18,062.00	11,778,893.00
LOAN FUND			CURRENT ASSETS, LOANS & ADVANCES	E	
CURRENT LIABILITIES & PROVISIONS	B		CASH AND BANK BALANCES	4,711,028.94	
Outstanding Liabilities	1,431,785.98		RECEIVABLES	4,015,253.00	
Advances	<u>8,629,549.00</u>	10,061,334.98	ADVANCES	<u>8,59,793.00</u>	9,586,074.94
Notes on Accounts	S	Total:	Total:	Total:	<u><u>27,268,431.21</u></u>

Signed in terms of our report of even date

FOR AMILAN BHADRA & ASSOCIATES
CHARTERED ACCOUNTANTS
(PROPRIETOR)

Place : Guwahati
DATE : 1st of August, 2008

INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD FROM 01-04-2007 TO 31-03-2008

EXPENDITURES	SCHEDULE	AMOUNT	INCOME	SCHEDULE	AMOUNT
To Grant in Aid Utilization			By Grant in Aid:	A	
NERBaM	F	1,832,066.60	NERBaM	F	1,832,066.60
Ministry of Agriculture, New Delhi, NBM	G	15,967,895.00	Ministry of Agriculture, New Delhi, NBM		15,967,895.00
Director of Employment And Craftsman Training, Assam			Director of Employment and Craftsman Training, Assam		2,83,974.00
BMTPC for Mat Production centre	H	2,83,974.00	BMTPC for Mat Production centre		<u>54,370.00</u>
		<u>54,370.00</u>			18,138,305.60
To Misc. Expenditures			By Misc. Income		
Construction of Bamboo Housing	I	7,378,131.00	Construction of Bamboo House	N	7,940,216.00
Training & Workshop	J	3,068,881.00	Consultancy Service	O	8,42,029.67
Tool/kit and Machine Arrangement	K	1,271,074.00	Training & Workshop	P	3,404,236.00
Consultancy Expenses	L	6,95,615.00	Tools, kit and Machine Arrangement	Q	1,299,521.00
Bamboo Bazar	M	<u>29,893.00</u>	BAMBOO BAZAR	R	37,581.00
To Meeting Expenses			Other Income		<u>19,773.00</u>
To Audit Fees					13,543,356.67
To Depreciation	C		By Interest on Bank Deposit		
To Excess of Income Over Expenditure					12,1371.00
Notes on Accounts	S	Total:		Total:	<u><u>31,803,033.27</u></u>

Signed in terms of our report of even date

Place : Guwahati
DATE :1st of August, 2008

FOR AMLAN BHADRA & ASSOCIATES
CHARTERED ACCOUNTANTS
(PROPRIETOR)

SCHEDULE FORMING PART OF THE BALANCE SHEET AS AT 31ST MARCH, 2008

SCHEDULE - A		AMOUNT
Grant IN AID :		
NEC for NERBaM		
(Sanctioned amount of Rs. 2,69,93,600.00)		
Received 4th and Final Instalment in 2007-08		6,993,600.00
Less : i) Expenss for 2006-07	2,020,134.00	
ii) Expenses for 2007-08	<u>1,832,066.60</u>	3,852,200.60
Balance as on 31-03-2008		<u>3,141,399.40</u>
Development Commissioner Handicraft, Delhi		
Opening Balances :		
i) Technology Mapping on South East Asian Countries		540,459.00
ii) Compilation of data on Export Import on Cane & Bamboo		245,000.00
iii) Setting Up a Model Design Centre		<u>4,000,000.00</u>
Balance as on 31-03-2008		<u>4,785,459.00</u>
Ministry of Agriculture , New Delhi, for NBM		
(Received for Implementing National Bamboo Mission Activities)		
Approved proposal 2006-07 (out of Rs. 91.95 Lac)	91,95,000.00	
Approved proposal 2007-08 (out of Rs. 169.38 Lac)	<u>80,20,000.00</u>	
	1,72,15,000.00	
Mision Director, State Bamboo Mission, Manipur (out of Rs. 7.00 Lac)	<u>7,00,000.00</u>	
	1,79,15,000.00	
Less : Expenses for 2006-07	<u>8,45,020.83</u>	1,70,69,979.17
Less : Expenditure for the year		<u>1,59,67,895.00</u>
Balance as on 31-03-2008		<u>1,102,084.17</u>

SCHEDULE FORMING PART OF THE BALANCE SHEET AS AT 31ST MARCH, 2008

SCHEDULE - A		AMOUNT
BMTPC, New Delhi,		
(Received for Constuction of Mat Production Centre)		
MHHDC, Shillong, Meghalaya	1,25,000.00	
Kolasib Development Society, Mizoram	<u>50,000.00</u>	175,000.00
Less :Expenditure for the year		<u>54,370.00</u>
Balance as on 31-03-2008		<u>120,630.00</u>
Director of Employment and Craftsman Training, Assam		
(For Certification of Skill Assessment under Non Formal Sector)		
(1st instalment, being the 50% of the sanctioned amount)		
Less :Expenditure for the year		<u>283,974.00</u>
Balance as on 31-03-2008		<u>216,026.00</u>
TOTAL :		<u>9,365,598.57</u>
SCHEDULE - B		
CURRENT LIABILITIES & PROVISIONS		
OUTSTANDING LIABILITIES		
i) Rent Payable to ASCON, Guwahati		961,248.00
ii) Housing / Construction Activities		
Mr. Asif Laskar (Consultant)	85,000.00	
Mr. Atul Sarkar (Labour Contractor)	37,105.00	
Mr. Dipak Sarkar (Labour Contractor)	16,585.00	
Mr. Anjal Goswami (Sikkim Flower Festival)	50,000.00	
M/s A.K. Contractors, Delhi	<u>10,400.00</u>	1,99,090.00
iii) M/s Exclusive Advertising Pvt. Ltd.		89,943.00
iv) M/s Pushpak Air Travels		78,302.00
v) M/s Gurunanak Mechanical Works Pvt. Ltd.		<u>1,03,202.98</u>
		<u>1,431,785.98</u>

SCHEDULE FORMING PART OF THE BALANCE SHEET AS AT 31ST MARCH, 2008

SCHEDULE - B		AMOUNT
ADVANCE FROM PARTIES		
Implementation of Bamboo Houses for Demonstration		
a) Ministry of External Affairs, Regional Passport Office, Guwahati	9,92,890.00	
b) Mr. Rizo, for Export to Franch	1,99,409.00	
c) Rural Dev. Block, Bokafa, Tripura for supply of Machineries	4,00,000.00	
Livelihood and Cluster Project		
YAKAM SOCIETY, TRIPURA		
a) Livelihood		
Opening Balance	49,74,000.00	
Received during the year	<u>4,50,000.00</u>	54,24,000.00
b) Cluster		1,400,000.00
Registration & Sponsorship Fees for International Seminar	44,500.00	
Suspense Account (ICICI Bank)	<u>168,750.00</u>	
		<u>8,629,549.00</u>
SCHEDULE - D		
WORK IN PROGRESS :		
Implementation of Project Under Development commissioner (Handicrafts) :		
i) Technology Mapping on Cane and Bamboo Sector in South East Asian countries		
Opening Balance	100,000.00	
Add: Expenditure during the year	<u>667,134.00</u>	767,134.00
ii) Compilation of Export Import Data on Cane and bamboo Products		
Opening Balance	150,000.00	
Add: Expenditure during the year	<u>339,450.00</u>	489,450.00
iii) Setting Up of Design Centre		
Opening Balance	724,516.00	
Add: Expenditure during the year	<u>1,325,331.00</u>	2,049,847.00
		<u>3,306,431.00</u>
Tripura Livelihood Project		
Advance for Machine		
Opening Balance		4,974,000.00
Add : Expenditure during the year		<u>2,315,400.00</u>
		<u>7,289,400.00</u>

SCHEDULE FORMING PART OF THE BALANCE SHEET AS AT 31ST MARCH, 2008

SCHEDULE - D	AMOUNT
WORK IN PROGRESS :	
Tools, KIT and MACHINE ARRANGEMENT	
Advance for Machine to M/s Gurunanak Mechanical Works Pvt. Ltd.	
Yakam Society, (Cluster)	546,000.00
R.D. Block, Bokafa, Tripura	419,000.00
SUB TOTAL :	<u>9,65,000.00</u>
BAMBOO BAZAR :	
Advance to parties	247,955.00
Less : Expenditure for the year	29,893.00
SUB TOTAL :	<u>218,062.00</u>
TOTAL :	<u>11,778,893.00</u>

SCHEDULE FORMING PART OF THE BALANCE SHEET AS AT 31ST MARCH, 2008

SCHEDULE - E		AMOUNT
CURRENT ASSETS LOANS AND ADVANCES :		
CASH AND BANK BALANCES		
ICICI Bank, Guwahati		
(A/c No.2242)	8,859.18	
(A/c No.24251)	3,184,608.76	
UTI Bank Guwahati	1,280,284.00	
A/c No.140010100132510		
UTI Bank Agartala	196,818.00	
A/c No.27601010004536		
UTI Bank Delhi (International Seminar) A/c	<u>29,500.00</u>	4,700,069.94
A/c No.14001010099131		
Cash in Hand		<u>10,959.00</u>
SUB TOTAL :		<u>4,711,028.94</u>
RECEIVABLES		
a) Bamboo Housing Construction		
i) North Eastern Council, Shillong	15,93,880.00	
ii) Director of Horticulture, Sikkim for Interior Decoration of Conference Room	1,76,718.00	
iii) D.C. Kamrup for Gandhi Mandap Project	4,32,182.00	
iv) D.C. Kamrup (Rural) for Sualkuchi Project	1,40,000.00	
v) D.C. Jayantia Hills Project	62,000.00	
vi) Assam Tourism Development Corporation for Jupuri Project	<u>4,63,668.00</u>	28,68,448.00
b) Development Commissioner Handicrafts		
For Evaluation of CFCs	2,03,610.00	
Sponsorship of Bamfest, 2006, Agartala	<u>6,13,750.00</u>	8,17,360.00
c) BMTPC, Delhi for Workshop		
		1,25,000.00
d) Tools and Machine Arrangement		
IFAD, Tura	59,565.00	
CRPF, Nalbari	1,11,880.00	
DRDA, Udaipur, Tripura	14,000.00	
RD BLOCK, Bokafa, Tripura	<u>19,000.00</u>	2,04,445.00
SUB TOTAL :		<u>40,15,253.00</u>
ADVANCES		
a) ASCON Against Rent	4,40,000.00	
b) P.K. Borthakur, for Office Premises		
Opening Balance	10,2,000.00	
Less : Adjusted during the year	<u>96,000.00</u>	6,000.00
c) M/s Gurunanak Mechanical Works Pvt. Ltd.	4,00,000.00	
d) Tax Deducted at Source	<u>13,793.00</u>	
SUB TOTAL :		<u>8,59,793.00</u>
TOTAL :		<u>95,86,074.94</u>

**SCHEDULE FORMING PART OF THE INCOME AND EXPENDITURE ACCOUNT FOR THE
PERIOD ENDED ON 31ST MARCH, 2008**

SCHEDULE - F		AMOUNT
Grant in Aid Utilized		
Expenses Under NERBaM		
AWARNESS GENERATION & NETWORKING :		
Awarness and Net working		
Printing	2,15,522.00	
Website	27,732.00	
Awarness Workshop	<u>78,970.00</u>	3,22,224.00
MARKETING :		
Exhibition Outside N.E		
Participation in UNIDO General Conference	2,43,837.00	
Market Survey	<u>10,000.00</u>	2,53,837.00
DESIGN DEVELOPMENT :		
Bamboo Demon structure	40,000.00	
Army Holiday Home, Shillong	<u>42,869.00</u>	82,869.00
Bamboo Design Development	1,41,293.00	
Design work Shop at Kaziranga	1,52,923.00	
Design work Shop at Bezera	<u>8,585.00</u>	<u>3,02,801.00</u>
		3,85,670.00
TECHNOLOGY UPGRADATION		
Technology Transfer for Charcoal Making	<u>40,019.00</u>	40,019.00
Administrative Expenses		8,30,316.60
SUB TOTAL :		<u>18,32,066.60</u>

**SCHEDULE FORMING PART OF THE INCOME AND EXPENDITURE ACCOUNT FOR THE
PERIOD ENDED ON 31ST MARCH, 2008**

SCHEDULE - G		AMOUNT
Utilization of Grant in Aid		
EXPENSES UNDER NBM		
APPROVED PROPOSAL-2006-07		
Experts		3,00,000.00
Traveling		2,00,000.00
Printing of Bamboo Manual in regional languages		33,23,000.00
Publicity in Printing and Electronic Media		
Electronic Media	70,000.00	
Advertisement through News Paper, Magazine etc.	6,47,690.00	
Advertisement through Hoarding	<u>2,82,310.00</u>	10,00,000.00
Funds for Certification of Planting Materials		
Training of Farmers/Entrepreneurs		1,80,000.00
Training of Field Functionaries		4,80,000.00
Organising International Seminar		18,47,513.00
Exposure Tour to China		15,26,000.00
APPROVED PROPOSAL-2007-08		
Experts		6,75,000.00
Office establishment expenses		3,00,000.00
Traveling		3,00,000.00
Printing of manual in regional languages		3,34,250.00
Publicity in Printing and Electronic Media		3,36,000.00
Funds for Certification of Planting Materials		3,18,302.00
Training of Farmers/Entrepreneurs		5,16,000.00
Training of Field Functionaries		9,22,447.00
Participation in Domestic /International Trade Fairs		8,61,533.00
Model Bamboo Handicraft units		
Grant to M/s Rhino Bamboo Industry, Ghy.		17,00,000.00
Database Generation and Management (Information, Web based Database), Monitoring and Evaluation, Information bulletin etc.		
M/s Web. Com Pvt. Ltd., Ghy		1,50,000.00
Post Harvest Storage and Treatment Facilities		3,75,000.00
Grant to Pancharatna Gramya Vikash Kendra, Nalbari		-
Bamboo Mat Production Centres		
Conducting study on Carbon Credits Generation		2,50,000.00
Consultancy to Manipur Bamboo Mission		
Traveling Expenses		<u>72,850.00</u>
SUB TOTAL :		<u>1,59,67,895.00</u>

**SCHEDULE FORMING PART OF THE INCOME AND EXPENDITURE ACCOUNT FOR THE
PERIOD ENDED ON 31ST MARCH, 2008**

SCHEDULE - H		AMOUNT
Utilization of Grant in Aid		
Director of Employment and Craftsman Training , Assam		
(Utilized During the period)		
Training of Assessors	2,29,374.00	
Advertisement	10,920.00	
Printing	<u>43,680.00</u>	
SUB TOTAL :		<u>2,83,974.00</u>
BMTPC for Mat production Centre		
Advance to Kolasib Development Society, Mizoram	48,970.00	
Administrative Expenses	<u>5,400.00</u>	
SUB TOTAL :		54,370.00
TOTAL (F to H)		<u>1,81,38,305.60</u>
MISC. EXPENDITURE		
SCHEDULE - I		
Construction of Bamboo Housing		
(Expenses Incurred for Implementing Bamboo House for Demonstration)		
Opening Work in Progress	42,97,435.00	
Addition during the year	<u>30,80,696.00</u>	73,78,131.00
ATDC for const. Jupuri at Kaziranga	20,710.00	
D C, Kamrup for Eco Tourism at Sualkuchi	97,600.00	
Renovation of NEC Guest House, Delhi	7,64,177.00	
Ilong Project, Under DC, Jowai, Jaintia Hills	1,16,895.00	
Construction of Stall for International Flower Festival under Dept. of Horticulture, Govt. of Sikkim	4,23,365.00	
Renovation of Conference Room under Dept. of Horticulture, Govt. of Sikkim	5,29,949.00	
Administrative Expenses	<u>11,28,000.00</u>	
	<u>30,80,696.00</u>	
(Annexure -C of Receipt & Payment A/c)		
SUB TOTAL :		<u>73,78,131.00</u>

**SCHEDULE FORMING PART OF THE INCOME AND EXPENDITURE ACCOUNT FOR THE
PERIOD ENDED ON 31ST MARCH, 2008**

SCHEDULE - J		AMOUNT
TRAINING AND WORKSHOP		
(Expenses incurred for Implementing Training and Workshop)		
Opening Work In Progress	7,08,714.00	
Addition during the year	<u>23,60,167.00</u>	30,68,881.00
Training and Workshop	12,78,269.00	
WORKSHOP		
Workshop for Bamboo Housing at Kaziranga sponsored by jointly, BMTPC, and NERBAM		
	2,25,000.00	
UNIDO General Conference	<u>2,56,898.00</u>	
SUB TOTAL :		<u>30,68,881.00</u>
MISC. EXPENDITURES		
SCHEDULE - K		
Arranging TOOLS KIT and MACHINE (Expenses Incurred for Arranging of Tool kits/ Machine)		
Add: Paid to M/s Gurunanak Mechanical Works Pvt. Ltd.		12,71,074.00
SUB TOTAL :		<u>12,71,074.00</u>
SCHEDULE - L		
Consultancy Services :		
Manpower Expenses	3,90,321.00	
Administrative Expenses	<u>3,05,294.00</u>	
SUB TOTAL :		<u>6,95,615.00</u>
SCHEDULE - M		
BAMBOO BAZAR		
Cost of Bamboo Seed/ Samples		<u>29,893.00</u>
SUB TOTAL :		29,893.00
TOTAL (I - M)		<u>1,24,43,594.00</u>

**SCHEDULE FORMING PART OF THE INCOME AND EXPENDITURE ACCOUNT FOR THE
PERIOD ENDED ON 31ST MARCH, 2008**

MISC. INCOME			AMOUNT
SCHEDULE - N			
Construction of Bamboo Housing			
(Received for Implementing Bamboo House for Demonstration)			
Carry forward from 2006-07		31,46,493.00	
Receipt during the period		<u>47,93,723.00</u>	
			79,40,216.00
DC Jayantia Hill , Ilong Bamboo Housing	1,75,000.00		
D C, Kamrup for Eco Tourism at Sualkuchi	2,80,000.00		
Dept. of Horticulture , Govt. Sikkim for Int. Flower Festival	10,99,250.00		
North East Council, Shillong	15,93,880.00		
Dept. of Horticulture, Govt. Sikkim for Conference Hall Interior Works	7,49,743.00		
Assam Tourism Development Corporation, Assam	4,63,668.00		
D C, Kamrup for Gandhimandap, Guwahati	<u>4,32,182.00</u>		
	SUB TOTAL :		<u>79,40,216.00</u>
SCHEDULE - O			
Consultancy Income :			
Carry forward from 2006-07		3,95,048.67	
Received during the period			
Janambhumi Pvt.ltd.	63,867.00		
UNIDO, DPR	1,93,114.00		
NETCO FOR DPR	1,40,000.00		
M/s Gurunanak Machanical works	<u>50,000.00</u>	<u>4,46,981.00</u>	
	SUB TOTAL :		<u>8,42,029.67</u>

**SCHEDULE FORMING PART OF THE INCOME AND EXPENDITURE ACCOUNT FOR THE
PERIOD ENDED ON 31ST MARCH, 2008**

REVENUE FOR MISC. ACTIVITIES			
SCHEDULE - P			AMOUNT
TRAINING AND WORKSHOP			
(Received for Implementing Training and Workshop)			
Advance Carry forward from 2006-07 programme.		10,03,500.00	
Receipt during the period			
TRAINING			
Char Area Dev. Authority	10,74,500.00		
FRR, Orissa	2,70,118.00		
Yakam Society, Tripura	1,27,500.00		
BSF,	30,500.00		
Dept. Horticulture, AP	2,94,720.00		
RFRI	25,000.00		
FDCL, Bhutan	50,000.00		
		18,72,338.00	
WORKSHOP		-	
BMTPC, Kaziranga Housing Training	2,25,000.00		
Unido General Conference	2,56,898.00		
Ashoka Trust, Delhi	46,500.00	5,28,398.00	
			<u>34,04,236.00</u>
SUB TOTAL :			
SCHEDULE -Q			
Arranging TOOL /KIT/MACHINE			
(Received for arranging Tools, Kit and Machine)			
Advance Carry forward from 2006-07		6,00,000.00	
Receipt during the period			
UNIDO- Ethiopia	1,89,802.00		
Silchar Growth Centre	3,05,274.00	4,95,076.00	
Receivable during the period			
IFAD, Tura	59,565		
CRPF, Assam	1,11,880		
DRDA, Udaipur	14,000		
R.D. Block, Bokafa, Tripura	19,000	2,04,445.00	
			<u>12,99,521.00</u>
SUB TOTAL :			
SCHEDULE - R			
BAMBOO BAZAR			
UNIDO for sending Bamboo Seeds		3,7,581.00	
			<u>3,7,581.00</u>
SUB TOTAL :			
OTHER INCOME			
Advertisement fees			19,773.00
			<u>1,35,43,356.67</u>
TOTAL (N - R)			

SCHEDULE FORMING PART OF THE BALANCE SHEET AS AT 31-03-2008

SCHEDULE - C: DEPRECIATION

Sl. No.	PARTICULARS	GROSS		DEPRECIATION				NET	
		As on 01-04-2007	Addition during the period	As on 31-03-2008	As on 01-04-2007	Rate	During the period	As on 31-03-2008	WDV As on 31-03-2007
1	Machineries & Tools	6959723.58		6959723.58	2139531.09	15%	723028.87	2862559.96	4820192.49
2	Computers and Accessories	499012.00	193081.00	692093.00	467075.23	60%	19162.06	486237.29	31936.77
3	Lap Tops	380330.00	160660.00	540990.00	255439.80	60%	74934.12	330373.92	124890.20
4	Design Center Equipments	0.00		0.00	0.00	15%	0.00	0.00	0.00
5	Furnitures	76375.00	61167.00	137542.00	20468.40	15%	8385.99	28854.38	55906.60
6	Air Conditioners	130780.00		130780.00	21805.00	15%	16346.25	38151.25	108975.00
7	Vehicles	1048521.00		1048521.00	114000.00	15%	140178.15	254178.15	934521.00
8	Photostat Machine	150000.00		150000.00	68400.00	15%	12240.00	80640.00	81600.00
9	Telephone & Fax Machine	7500.00		7500.00	2336.25	15%	774.56	3110.81	5163.75
10	Generator Set	257988.00		257988.00	70998.20	15%	28048.47	99046.67	186989.80
11	Fans	5000.00		5000.00	1929.38	15%	460.59	2389.97	3070.63
12	Refrigerator	0.00	8750.00	8750.00	0.00	15%	0.00	0.00	0.00
13	Intercom equipments	15000.00	56000	71000.00	6840.00	15%	1224.00	8064.00	8160.00
14	Kitchen Equipments	5000.00		5000.00	2609.38	15%	358.59	2967.98	2390.63
15	Television set	10000.00		10000.00	5218.75	15%	717.19	5935.94	4781.25
16	Almirah	25000.00		25000.00	8743.75	10%	1625.63	10369.38	16256.25
17	Scanner	14354.80		14354.80	4012.60	15%	1551.33	5563.93	10342.21
18	Projector	50000.00		50000.00	22800.00	15%	4080.00	26880.00	27200.00
19	Camera	85000.00		85000.00	44359.38	15%	6096.09	50455.48	40640.63
	TOTAL	9719584.38	479658.00	10199242.38	3256567.21		1039211.90	4295779.11	6463017.19

NOTES ON ACCOUNTS

SCHEDULE - S

1. ACCOUNTING POLICIES

Basis of Preparation of Financial Statements

Financial Statements are prepared on accrual method of Accounting under the Historical Cost Convention in accordance with the Accounting Standards issued by the Institute of Chartered Accountants of India as adopted consistently unless otherwise stated.

2. CAPITAL FUND

This fund represents the difference between the Assets & Liabilities as on the date of formation of Society, in addition to the yearly addition/subtraction of Income/Expenditure since Society formation.

3. GRANT-IN-AID

Unspent balance in the grant accounts are reflected as a liability. They are either to be refunded to the Donor Institutions or are subject to adjustment as grants for the subsequent periods, as desired by the Donors.

4. FIXED ASSETS

Fixed Assets are stated at cost of acquisition less accumulated depreciation.

5. DEPRECIATION

Depreciation on Fixed Assets is provided on Written down value method in the manner and the rates prescribed in the Income Tax Act 1961.

6. MACHINERIES AND TOOLS

Machineries and Tools situated at Technology Park, Bamunimaidan, Guwahati has been revalued on 30th of July, 2008 and hence be adjusted in the Accounts 2008-09.

7. INTEREST ON ICICI SAVINGS BANK ACCOUNT

Interest on ICICI Savings Bank Account for the year 2007-08 not provided by the Bank and hence Interest on S.B. Account has not been shown in the accounts of 2007-08. However, CBTC has taken up the matter of non receipt of Interest on S.B. Account with the Bank.

8. ADMINISTRATION EXPENSES

Administration Expenses have not been shown directly in the Income and Expenditure Account as CBTC does not have permanent Staff nor it has its own source of income for incurring the expenses. The Administration expenses for the year has been distributed amongst the different projects on the basis of the activities of the different projects.

The Administration Expenses are as follows:

a) Salary	:	Rs. 38,73,635.00
b) Travelling Expenses	:	Rs. 7,80,731.00
c) Other Administrative Expenses	:	Rs. 24,75,104.59
TOTAL	:	Rs. 71,29,470.59

Landmark achievements of CBTC at a glance

Since 2000 till 2004

- Over the months, a number of Policy makers, officials, entrepreneurs etc. have been sent for Training to various Institutes in China. Majority of them have excelled in their Training and were successful in setting up large Industrial Units on Bamboo Floor Board and Bamboo Concrete Forming Board. Also, they are key functionaries of the State Government for Bamboo Development.
- Over 1500 peoples have been trained up at the Cane and Bamboo Technology Centre (CBTC), Guwahati in the specialized courses on Cane and Bamboo Machine Tools Operation, Handicrafts, Jig Making, etc. from all over NE States and institutions.
- The CBTC is leading the way in creating awareness about the vexed issue of Bamboo Flowering. An Action Plan has also been drawn up to mitigate the devastating consequences of the phenomenon with Rain Forest Research Institute, Jorhat.
- Based on the advice by the CBTC, the Hindustan Paper Corporation Ltd. have come up with the concept of setting up captive plantations under their Farm Forestry Scheme. A number of Entrepreneurs and Industrialists have also promoted the concept using new methods of plantation, management and harvesting.
- The test of the properties of the Indian Bamboo species were carried out in China and it was extremely encouraging and has proved that Indian bamboo species are suitable for conversion into Industrial products.
- The concept of setting up a '*Bamboo Processing Zone*' is considered as a major innovation and every State in the region is contemplating to set up one such Zone.
- A three-week workshop on bamboo-based housing in collaboration with INBAR and the Government of Mizoram was held in Berawtlang, Aizawl. The workshop focused on transfer and adaptation of Latin American earthquake-resistant and affordable bamboo housing technology to India.
- A meet on "*Machine made Manufacturing Sticks*" was held at Bangalore in which over 80 major Agarbatti producing houses graced the occasion. The Meet was also being attended by over 45 machine made Agarbatti Stick manufacturers from the NER.
- The CBTC has conducted the Technology Fair (BAMTECH) together with a

Bamboo Festival (BAMFEST) in Guwahati from March 11 – 13. The Fair cum Festival was graced by participants from 10 countries apart from a host of Indian delegates.

- The CBTC has also set up a Mother Processing Facility at Guwahati where machines for both primary and secondary processing are being installed. The Centre has been used as training centre for artisans, craftsmen etc., and also conduct applied research on process parameters, etc.
- Numerous Workshops were conducted all over the North East in order to disseminate awareness on bamboo and its prospect especially in this part of the country. This endeavor was very much instrumental in moulding the concepts of the officials and the common people towards bamboo.

Over the last three years, the project has created a visible impact in the North East. Almost all the States in the North Eastern Region have enacted and adopted Bamboo Policies. Most of these policies take into account the fact that Bamboo is a 'resource' and that it can be used as an 'enterprise'. Despite all odds and the ethnic and cultural diversity that exists within the region, the CBTC has managed to generate mass awareness about the prospects of bamboo not only at the grass root level but also at the highest policy making level. This is in one sense the tremendous achievement that CBTC has made and the outcome is that most of the state Chief Ministers of the Region have placed bamboo as a '**Special Purpose Vehicle**' (SPV) for overall economic development of their States.

From 2004 till 2007:

- The greatest achievement of the CBTC has been in preparing the Detailed Project Report (DPR) for the National Bamboo Mission. This entailed long discussions with the officials of various Ministries in New Delhi and State Governments. The DPR has since been accepted by the Government of India and thus paved the way for the launch of the National Bamboo Mission which is being operationalized in all the states of the country.
- Implementing Partner of the Building Materials and Technology Promotion Council, New Delhi for establishment of Bamboo Mat Production Centres in three NE States of Mizoram, Meghalaya and Tripura.
- Provided Technology and Technical guidance to Bamboo Industrial Units being established in the NE Region.
- Render counselling services to Entrepreneurs for product selection, machinery selection, TEFR preparation, etc
- Designing of Clusters, Common Facility Centres, etc. to be set up in remote rural areas

- Facilitate revival of Shut-Down Plywood Units
- Designing and construction of Innovative and Demonstrative Bamboo Structures in and outside the North-East.
 - Beautification of Gandhi Mandap at Guwahati using innovative Bamboo Structures
 - Executing the building works of six bamboo-based cottages for tourists on behalf of the Assam Tourism Development Corporation at Kaziranga.
- Signing of an MoU with several agencies/institutes:
 - With Building Materials and Technology Promotion Council (BMTPC) for an integrated approach towards building a resilient bamboo economy.
 - With the Uttaranchal Fiber and Bamboo Development Board (UFBDB) for promotion of Bamboo Handicrafts.
 - With the Centre for Bamboo Initiative (CBFI) of the National Institute of Design (NID) for promoting Design Intervention.
- Instrumental in the setting up of number of Bamboo based Units set up under the North East Bamboo Mission: 17 in Mizoram, 5 in Assam and 2 in Meghalaya
- Organized two International BAMFESTs; one in the month of May 2005 at Shillong and the other one in the month of December, 2006 at Agartala with very specific purpose of generating awareness and remove the shyness for investment in the bamboo sector as well as customers acceptance of bamboo based products, especially for wood substitute's products. The events were organized in such away that both the technical sessions and the exhibitions were held simultaneously.
- Training for Policy makers and key Government officials of Nagaland Bamboo Development Agency, Bodoland Territorial Council (BTC), North Cachar Hills District Autonomous Council, Planning Commission (E&F), Government of India organized in China in collaboration with China National Bamboo Research Centre, Hangzhou.
- Training imparted to a team of crafts-persons from Bhutan and also a trainer from CBTC was deputed to the Himalayan Kingdom for a month to impart training to the artisans there.
- Has implemented several projects with the support of the DC (Handicrafts):
 - Set up a Bamboo Resource centre
 - CAD centre for development of crafts design on cane and bamboo
 - Collection & compilation of database on import-export of cane & bamboo crafts

- Technology mapping & need assessment of the technology requirements in the cane & bamboo sector in NE India
- Evaluation of cane & bamboo common facility centre (CFC) in the n.e. Under avhy/undp schemes
- Initiated a Livelihood project for the surrendered militants of Tripura
- Have showcase the development of bamboo from the region at the World Forum
 - At Vienna during the UNIDO conference, December, 2007
 - At Ghent, Belgium, the Flanders Expo

Designated as the Bamboo Technical Support Group (BTSG) under the National Bamboo Mission for the NE states and the states of Bihar, Jharlhand, Orissa and West Bengal since 2006.



Prof Walter Liese, Grandfather of Bamboo at a bamboo workshop in Guwahati



H.E. Mr. Ernest Bai Koroma, President, Sierra Leone, visited CBTC stall at the XIIth General Conference of UNIDO at Vienna (2007)



Shri RK Falguni IAS, Secretary, NEC flanked by Secy DIPP & Dy. DC(H) at the launching of UNIDO-CBTC 2nd Phase



UNIDO Evaluation team with CBTC officials



Mr. Bob Hallett, former UNIDO official at Bamtech-2003



Former Minister for DoNER, Shri PR Kyndiah visited CBTC stall at an Expo in Guwahati (2005)



Mr. Anthony De Sa, Director, UNIDO South-South Cooperation at CBTC Resource Centre (2008)



Officials from Bamboo Thematic Networking of the EU at CBTC Technology Park



Cane and Bamboo Technology Centre

(Bamboo Technology Support Group under National Bamboo Mission)

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