

MINISTRY OF SCIENCE & TECHNOLOGY

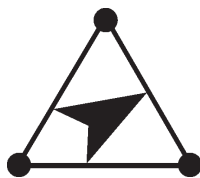


# ANNUAL REPORT 2005-2006

**TECHNOLOGY INFORMATION, FORECASTING & ASSESSMENT COUNCIL  
(DEPARTMENT OF SCIENCE AND TECHNOLOGY)**

# **Annual Report**

## **(2005-06)**



**TECHNOLOGY INFORMATION, FORECASTING & ASSESSMENT COUNCIL  
(TIFAC)**

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Shaheed Jeet Singh Marg,  
New Delhi - 110016

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**Dr. R. Chidambaram**

Principal Scientific Adviser to Govt. of India

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Executive Director TIFAC

# Contents

	Page No.
Executive Summary	
1. TIFAC Studies & Information Services (TSIS)	1
2. Patent Facilitating Centre (PFC)	4
3. Technopreneur Promotion Programme (TePP)	7
4. Home Grown Technology (HGT)	11
5. Sugar Technology Mission (STM)	12
6. Fly Ash Utilization Programme (FAUP)	15
7. Advanced Composites Programme (ACP)	19
8. Umbrella Scheme on Technology Vision 2020 Projects in Mission Mode (TV2020)	24
9. National Mission on Bamboo Applications (NMBA)	40
10. Other Activities	56
Annexure-1: Projects Completed Earlier	58
Annexure-2: List of Papers/Publications	60
Annexure-3: Foreign tours and participation in International Exhibitions/Conferences	63
Auditor's Report Together with Audited Statement of Accounts	65

# Executive Summary

The Technology Information, Forecasting & Assessment Council (TIFAC) is an autonomous society set up under the Department of Science & Technology in 1988, mandated to provide timely and relevant S&T and information inputs in socio-economic areas, and to facilitate and promote prioritized technology interventions. Over the years, TIFAC has emerged as a unique institution of knowledge networking to make technology work for people in all important sectors of economy. TIFAC projects are wide ranging, in terms of sectors and modalities.

During the year 2005-06, National Mission on Bamboo Applications (NMBA) and Umbrella Scheme on Technology Vision 2020 Projects in Mission Mode (TV2020) continued to be the main focus of TIFAC Activities.

A glimpse of some of the significant achievements during this period is given below:

- **TSIS:** Three Techno Market Studies were completed during the year, namely: Study and Survey of FDI based R&D units in India; Technologies for retrofitting existing buildings to make them earthquake resistant; and Bio-invasion, SPS measures and import of wood and wood products in India. Findings of the study "Study and Survey of FDI based R&D units in India" have been discussed with Department of Economic Affairs regarding further actions.
- **PFC:** Support was extended for filing patent applications - 14 in India, 6 in USA and 2 at EPO and 34 patent awareness workshops were conducted during the year. One new PIC was also set up in Jammu & Kashmir.
- **Innovation Support:** New initiatives undertaken to increase the reach of TePP and also to facilitate onward movement of the innovations towards market. Five TePP Outreach centres have been established at different places. Further, 7 projects were completed and 5 new projects initiated this year. TePP got international recognition as one of the projects : "Solid Biomass Fired Furnace" was awarded The Green Oscar at U.K. during the year and the project "Control of Mastitis" was awarded by Lemelson Foundation, USA.
- **TV2020 :** Agriculture projects in Bihar, Ballia, Uttaranchal (Pindervalley) & Kancheepuram are near completion. Two Fisheries projects completed in Agro Food Processing Sector. Four projects initiated under Core-group on Automotive R&D. Five new TIFAC CORE's were established under Mission REACH. Five projects initiated in the area of 'Synergizing S&T with Judicial Processes' under Targetted Programmes.
- **Special Initiatives :** During the year TIFAC organized workshops on topics of relevance and national & international importance including - four "Seminar-cum-Business Meets" and one "International Congress" under Fly Ash Utilization Programme. Workshops were also held on "Technology Priorities for Electric Vehicles" and "STAP Technical Workshop on Liquid Biofuels". Rehabilitation activity of Tsunami victims were completed by providing 39 community sheds and 55 catamaran fishing boats made out of composite materials, developed under Advanced Composites Programme.
- **Other Activities :** TIFAC undertook a number of initiatives towards Implementation of Official Language Policy. It is taking a lead role in Sub-Committee of Infrastructure and Resources Development under S&T Cooperation with ASEAN. Further actions pursued towards joining IASA as a National Member Organization.

Looking ahead, TIFAC will continue to follow approach of working in partnership with experts/institutions to foster academia-industry interface, developing & synergizing technology towards innovations and focus on prioritized technologies.

Dr. D.N. Singh  
Executive Director

# 1

## TIFAC Studies & Information Services (TSIS)

### 1.1 TIFAC Studies (Background):

With the objective of looking ahead towards technology options, and to cater to the fast changing trade environments, TIFAC brings out a wide spectrum of reports for assessment of status and needs of various sectors. TIFAC has covered most of the areas of socio-economic relevance through well-researched Technology Forecasting (TF), Technology Assessment (TA), Techno Market Survey (TMS) and Technology Vision studies. It also generates special reports in select areas. So far, more than 280 studies have been undertaken.

Techno Market Survey (TMS) studies aim assessing

the status and market potential of emerging technologies of national importance. The reports provide options for technology trajectories to industries, institutions, entrepreneurs and experts.

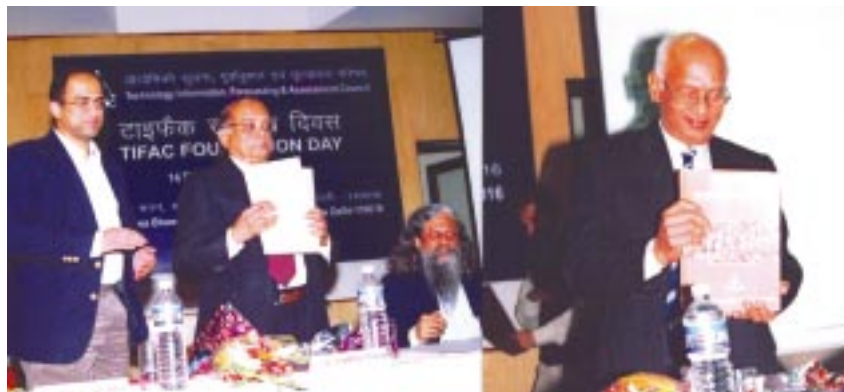
Till date, TIFAC has commissioned 180 TMS studies in various sectors. Out of these, 168 studies have been completed, six have been short closed and six are continuing.

### Activities during the year.

#### 1.1.1 Studies completed

The following studies were completed and published:

S. No.	Topic	Consultant
1	Study and Survey of FDI Based R&D Units in India	Academy of Business Studies (ABS) Consultants, Delhi
2	Technologies for Retrofitting Existing Buildings to Make them Earthquake Resistant	IIT, Roorkee
3	Bioinvasion, SPS measures and import of wood and Wood Products in India	Institute of Wood Science and Technology (IWST), Bangalore



TIFAC studies released during TIFAC foundation day

### 1.1.2 Ongoing studies:

During the year the following ongoing studies were pursued. The status is as follows:

S.No.	Topic	Consultant	Status
1.	Packaging of Pharmaceutical and Personal Care Products	SIES School of Packaging, Navi Mumbai	Draft report under revision.
2.	Packaging of Fresh and Processed Foods	SIES School of Packaging, Navi Mumbai	Draft report under revision.
3.	Packaging of Non Perishables	SIES School of Packaging, Navi Mumbai	Draft report under revision.
4.	Packaging of Chemicals	SIES School of Packaging, Navi Mumbai	Draft report under revision.
5.	Display and Promotional Packaging	SIES School of Packaging, Navi Mumbai	Draft report under revision.
6.	A Techno Market Survey on Vaccines and Molecular Diagnostics	Biotech Consortium India Ltd., Delhi	Revised report under assessment for acceptance.

### 1.1.3 Studies short closed

The following studies initiated earlier were short closed:

S.No.	Topic	Consultant
1.	The Updates of report on Comprehensive Picture of S&T (Biotechnology, Health Care, CSIR and DST)	Dr Nirupa Sen ,New Delhi
2.	National and International Status of Nutraceuticals	National Botanical Research Institute, Lucknow

## 1.2. Information Services

### 1.2.1 Websites

TIFAC websites are regularly maintained and updated by in-house team of TIFAC. Apart from main organization website three more websites for individual programmes & activities as required are made available. Following website addresses are related to TIFAC.

- TIFAC website (<http://www.tifac.org.in>)
- Mission REACH (component of Umbrella Scheme TV2020) (<http://www.missionreach.org.in>)
- Patent Facilitating Centre (PFC) (<http://www.indianpatents.org.in>)
- National Mission on Bamboo Application (NMBA) (<http://www.bambootech.org.in>)

## TIFAC Website

This is one of the most popularly accessed website in scientific & technological area. It has served over 7 lakhs hits per month and received around 1800 queries annually pertaining to various technology areas. The website [www.tifac.org.in](http://www.tifac.org.in) provides comprehensive details of the services and facilities provided by organization. New sections titled as "Information & Communication Technology" and "Synergizing S&T with Judicial Processes" has been added under Vision 2020 programmes with their latest updates. Electronic form of full length Annual Report also made available online in English and Hindi under "Annual Report" section. Restructured the existing section of the Home Grown Technology Programme on website.

## Patent Facilitating Centre

First ever-online gateway to two databases on Indian patents since 1995, made available online on [www.indianpatents.org.in](http://www.indianpatents.org.in) website. One database is on patent applications filed in India entitled Ekaswa A and another one on patents accepted by the Indian Patent Office entitled Ekaswa B. This website provides useful details of the services and facilities provided by PFC. Information related to National and International Workshops organized by PFC, Women Scientist Scheme programme like examination, interview details and online result information also made available on websites. e-PFC bulletin has about 7,000 subscriptions.

## Mission REACH (Relevance and Excellence in ACHieving new heights in educational institutes) website:

With an aim to connect different educational institute through website, Mission REACH Portal had been created. In this, all educational institutes, which are associated with Mission REACH, update and share their activities on Mission REACH Portal. List of different educational institutes faculty details with their photographs has been included on the website. The website is being regularly updated with latest & current information.

### 1.2.2 TIFAC Specialized Library

To facilitate and foster the flow of the scientific/technical information through formal channel, TIFAC Library continued to support the enhanced requirements of scientists and users by procuring books, reports, journals/specialized serials. During the period 100 (Hundred) books and reports have been procured raising the holding of TIFAC Library to 1968

Books and reports are being classified according to the subject areas and entered in the computer.

In addition, Proquest Online Database -2006 subscribed through Indian National Digital Library in Engineering Science & Technology (INDEST) Consortium. Also 34 (Thirty Four) journals have been subscribed.



India is now TRIPS compliant. Many changes in India's IP laws have been made since 1995 and some new laws have also been enacted. PFC has played important role at all stages of IP developments in the country from creating IP awareness, protection of IP, use and exploitation of IP, keeping watch on developments around and policy and law making. PFC has become a national referral point for industry, universities, government agencies, NGOs, foreign embassies and individual scientists, innovators and consultants, for information and advice on IPR related matters, especially for upto date patent information. PFC was instrumental in generating critical inputs including conceptual framework, actual patent data, analysis, etc. for decision-making, policy formulation and future planning at the national level in the area of IPR and related matters.

The details of different models and work done during the year are given below:

### Policy level interventions in States

**Policy regarding filing of GI:** Himachal Pradesh Government acted on the advice of PFC and appointed Patent Information Centre (PIC) to file all applications for obtaining Geographical Indications (GI) in respect of items produced in Himachal. As a result two GIs were obtained in respect of Kullu Shawls and Kangra Tea. Another GI was filed by the Punjab PIC for the traditional Phulkari. Similar policy initiatives are being taken by Assam, Goa, West Bengal and Uttar Pradesh.

**Policy on Inclusion of IPR in course curriculum:** On the initiatives of PIC Punjab, IPR was introduced in course curriculum of ITIs, polytechnics and degree colleges of Punjab

through a government notification. On similar lines PIC West Bengal is now taking care of complete course on IPR at M.Tech. level of Bidhan Chandra Krishi Vishwavidhyalaya, Kalyani. Other PICs are also following suit.

**Annual Budget Provision for IPR in State's plans:** PFC's efforts are now being supported by many state governments by providing financial support to PICs through an annual budget which may be in different forms. The states of Kerala, UP, Punjab, MP, Tamil Nadu and Rajasthan have provided Rs. 10 lakhs, Rs 5 lakhs, Rs. 2.5 lakhs, Rs 2 lakhs, Rs 2 lakhs and Rs. 0.5 lakhs respectively. West Bengal now provides a matching grant equal to funds allocated by PFC.

**Patent Information Centres (PIC):** One more PIC was set-up in the state of Jammu & Kashmir at Srinagar. With this, a total twenty (20) PICs have been set up by PFC. The PICs are playing the role of a consultant, by providing guidance in filing of patent application and extending the patent search services and also assisting PFC in conducting workshops in their respective states.

**Enabling scientists and technologists in handling IP Filing on behalf of Universities and academic Institutes:** PFC facilitated filing of 22 patent applications during the period, which included 14 applications in India, 6 in USA and 2 at EPO making the total number of filings 309.

**Filing on Behalf of DRDO :** PFC has earlier entered into agreement by signing a MoU with Defence Research Development Organization (DRDO). As per the agreement all the new patent/IPR applications of DRDO are being filed through PFC-TIFAC. PFC is also maintaining the previously filed applications of DRDO.

## International Collaboration

PFC and National Institutes of Health (NIH), US Department of Human & Health Services (HHS) was awarded a joint project titled Indo-US Technology Management training and exchange programme by Indo-US Science & Technology Forum. The forum support was of US\$35,000. The programme was conceived with following purposes:

- a. Training four interns from India at the NIH in matters related to IPR Management and Licensing
- b. Conducting two Workshops in India on IP Management in Public Private Partnership
- c. Organizing a Symposium in India



Under this programme, PFC organized two workshops-cum-retreat on IP Management in Public Private Partnership and one national Symposium in association with National Institutes of Health (NIH), USA. Each workshop was of three days duration. The first workshop was organized at National Centre for Biological Sciences (NCBS), Bangalore during February 8 to 10, 2006 and the second at Heritage Village, Manesar, Gurgaon during February 13 to 15, 2006. The Bangalore workshop was attended by 34 participants and Manesar workshop was attended by 40 participants from different leading institutes. Symposium at Delhi was attended by 110

participants. There were four experts from NIH, USA amongst the faculty.

## Empowering women

Women Scientists Scheme aimed at utilizing the dormant potential of women scientists qualified in science and technology by giving them opportunities for practicing their knowledge of science & technology in fruitful manner. Under this scheme PFC had earlier trained 15 women scientists from all over the country. The scholarship period for most of these women is over and they have found placement in reputed attorneys firms and IPR sections of other organizations. Going by the success of the scheme during the first batch the scheme has been launched for the second time during this period. A batch of 28 women scientists was selected by PFC based on an all India competition comprising of a written test and a rigorous interview in January 2006. Most of them have been placed with the leading IP firms of the country and government agencies like PFC, CSIR, ICMR and Patent Information Center (PIC), Punjab, an outfit of PFC.



Besides being trained, women scientists have also come up with technology scan reports. List of the project reports prepared by these scientists are:

- i) Patents in hydrogen production and storage
- ii) Patent term extension for pharmaceuticals
- iii) Indian pharmaceutical industry: A patent analysis of the changing scenario
- iv) Patents on medicinal plants

- v) Patenting in biotechnology
- vi) Plant variety protection and farmers rights
- vii) New drug development

### **Awareness creation, training and outreach programmes through workshops**

PFC has adopted multipronged strategies for awareness creation, training and outreach programme for students, panchayats and institutions, etc. A total of 34 workshops were conducted during the period including a few workshops on specialized topics such as geographical indicators, plant variety protection. In the process so far 303 workshop have been held during which about 40,000 scientists, technologists, school children and faculty from polytechnics and colleges have been sensitized. PFC has been continuously organizing patent/IPR awareness workshops with Ministry of Small Scale Industries and organized 3 such workshops during the period.

Advanced workshops cum training programme on "Drafting and prosecution of patent applications-covering US & EP patent laws & practice" and

"International Trademark laws & practices" were organized in association with Institute of Intellectual Property Research & Practice (IIPRP), Gurgaon.

### **IPR Bulletins**

IPR bulletin of TIFAC has been instrumental in spreading awareness about IP related matters, especially patents, all over the country. The latest bulletin and the archives can be viewed on the PFC website [www.indianpatents.org.in](http://www.indianpatents.org.in) and [www.pfc.org.in](http://www.pfc.org.in). During the period, 4 issues of the IPR bulletin were brought out. These bulletins covered many interesting topics such as Bayh Dole Act, analysis of patents filed in India in the area of electronics, and few landmark case laws. The bulletin is distributed through mail (about 7000 readers) and the web page of PFC.

### **IPR Camps**

IPR camps are organized to sensitise school children and teachers, faculty of ITI and polytechnics and Panchayati Raj Institutions in different states. These camps are organized by Patent Information Centres (PICs) established by PFC in 20 States.

Technopreneur Promotion Programme (TePP) is jointly operated by Department of Scientific & Industrial Research (DSIR), and TIFAC. The Programme is aimed at expanding the Innovation base by tapping the vast innovative potential of the citizens of India. Under the programme, proposals have been received from a vast spectrum of entrepreneurs from housewives to farmers and engineers.

TePP support is available to any citizen of the country, having an original idea / invention / know-how. Selected projects are provided financial support of upto Rs. 10 lakhs to undertake the development of working prototypes / demonstration of processes.

### 3.1 HIGHLIGHTS AND ACHIEVEMENTS

So far 65 projects have been commissioned by TIFAC including 5 projects during the year. A brief glimpse of highlights and achievements in some of the projects during the year is given below:

#### 3.1.1 Solid Biomass Fired Furnace

The Ashden Foundation of UK conferred on Mr. Ramesh Kumar Nibhoria, Chandigarh, the prestigious Ashden Award (also known as the Green Oscar) for the year-2005 for the biomass



Solid Biomass Fired Furnace



Winner of the Ashden Awards 2005 (Green Oscar)

briquette fired energy efficient furnace for community kitchen developed.

Biomass is a significant alternative source of energy for India. However, there has not been enough efforts towards development of efficient combustion system for biomass on medium scale, like community kitchens etc. Normally highly inefficient combustion of firewood, or costlier LPG burning systems are used.

This furnace takes care of the special requirements of primary and secondary air distributions for optimum combustion, optimum utilization of heat generated in different cooking chambers and also adequate insulation. Biomass briquette is used as fuel. The innovator has installed 17 such systems in school canteens and the school authorities have experienced significant amount of savings as compared to LPG.

#### 3.1.2 ZaDD Clamping of Pressure Cookers

The project was successfully completed and the prototypes developed were demonstrated and passed the critical BIS performance tests. The new design – the 'ZaDD clamping arrangement'

provides leak proof closing system for pressure cooker and relatively better volumetric efficiency with positive locking system.



Prototype of the ZaDD Pressure Cooker

### 3.1.3 Control of Mastitis

The Udder Care Kit for Control of mastitis developed by Dr. R.Venkatakrishnan was awarded by Lemelson Foundation, U.S.A.

The udder care kit & the milk test kit helps to arrest the mastitis infection and prevent onset of clinical symptoms.

The Scientific validation included: Collecting sufficient scientific literature from various scientific institutions for the mode of action claimed in the project; and toxicity & efficacy studies which was done at National Dairy Research Institute, Karnal.

### 3.1.4 Trolley with Jack for Disabled Persons

This innovative project commissioned, aims at design & development of trolley fitted with motorized jack to help the disabled to handle heavy objects and moving them to a desired place. The project would impart structural design & ergonomics for the trolley based on field trials. The mechanical functions would help the handicapped persons lift & move heavy objects such as *gas cylinder, water bucket, flower pot, rice bag* etc., comfortably. Structural design & failure analysis of the trolley would be provided by IIT-Delhi. AIIMS would assist in the product stability study on handling heavy loads like LPG cylinders to arrive at best suitable lifting and trolley mechanism.

## 3.2 PROJECTS COMPLETED

S.No.	Project	Innovator
1.	Isolation and manufacture of anti-feedants from seeds of <i>Annona Squamosa</i> (Sitaphal)	Prof. C. Subramanyam and Ms. Madhurima Benakareddy, Hyderabad
2.	Udder Care Kit for prevention of Mastitis	Dr. R. Venkata Krishnan Chennai
3.	On demand Tankless Water Heater (Instant Gas Water Heater)	B.P. Bansal, New Delhi
4.	Development of DC MCBs for 5 KA, 130/220 V DC Fault Level	Chetan V. Shah, Baroda
5.	Auto-distractor	Dr. Kulkarni Prasad Narayan, Sangli
6.	To improve and popularize wheel plough and multi-seed drill	G. Gnanamani C/o SEVA, Madurai
7.	ZaDD Clamping of Pressure Cookers	Manjunatha Verambally, Banagalore

### 3.3 ONGOING PROJECTS

S.No.	Project	Innovator
1.	Anti Roll Back Device for Cars(ABRDEC)	Dilip N. Bapat, Mumbai
2.	Mass Production of novel metabolites from <i>Alternaria</i> sp. for use as eco-friendly agro-chemicals for Weed Management	Sanjai Saxena, New Delhi
3.	Treatment of Diarrhea in Animals	Lakhanbhai B. Khatana <i>et. al.</i> , Ahmedabad
4.	Wound Healing in Animals	Devkaranbhai L. Eabari <i>et. al.</i> , Ahmedabad
5.	Treatment of Bloat and Flatulence in Animals	Solanki Rahamatkhan P. <i>et. al.</i> , Ahmedabad
6.	Retention of Placenta in Animals	Becharbhai D. Parmar <i>et. al.</i> , Ahmedabad
7.	Treatment of Blood Pressure, Arthritis and Heart Problems	Sumara Karimbhai <i>et. al.</i> , Ahmedabad
8.	Treatment of Pests in Cotton	Ivappan <i>et. al.</i> , Ahmedabad
9.	Prototyping of on-line Time Domain instrument for measurements in industrial and agricultural materials	Dr. Kalpana Joshi, Pune
10.	Automatic Pump operator	Manoharmayum Maniahr Sharma, Imphal
11.	Milkshafut - Tareeq- A path detection device	Bashir Ahmad Wani & Dr. G. Mohiuddin Bhat, Srinagar
12.	Top loading bottom heating & fixed type solar cooker	Suresh Vaidya Rajan, New Delhi
13.	Design and development of variable reluctance electric servo actuator	K. Sirinivas, Bangalore
14.	Improvement in performance of Gasoline Engine by Cooling of intake air through Humidification	Aniket R. Khare
15.	Electronic Tagging of book like objects	Balaji Sowmyanarayanan, Chennai
16.	Tamper-proof seal for disposable bottles and jars	N P Bonde
17.	Device for lifting the chassis of the vehicle	D A Kulkarni
18.	Design refinement of JS milker manual milking machine	Paul Basil

### 3.4 NEW PROJECTS INITIATED

S.No.	Project	Innovator
1.	Fungal bio-sorbents for removal of water hardness	Dr. P. Maruthi Mohan, Hyderabad
2.	Trolley with Jack for Disabled Persons	Sameer Mohindra
3.	Design and development of Indigenous drug on Diabetes-II	Dr. Ganapati Sahu, Balasore
4.	Performance evaluation of indigenous Dialysis Device	Dr. Parikshit Bansal
5.	Energy efficient geyser	Suresh Narain Mathur, Delhi

### 3.5 NEW INITIATIVES AND MODIFICATIONS IN THE PROGRAMME

organizations / institutions throughout the country. Proposals for establishing the “center” were requested through an All India Advertisement.

3.5.1 To increase the reach of TePP programme and to open multiple windows for receiving proposals under TePP, it has been decided to establish TePP Outreach Centres at different

Following five TePP Outreach Centres have been established which are being coordinated by TIFAC:

1. SIDBI Innovation and Incubation Centre, IIT Kanpur
2. Institute Industry Partnership Cell, Institute of Technology, Banaras Hindu University, Varanasi
3. Central Glass and Ceramic Research Institute (CGCRI), Kolkata
4. Vellore Institute of Technology –Technology Business Incubation Centre, Vellore
5. PSG-Science and Technology Entrepreneurial Park, Coimbatore

3.5.2 To facilitate the onward movement of the innovation towards market, modifications in the TePP Programme have been effected and further support is being extended to innovations in the form of:

/ validation, building improved prototype and aesthetic design, preparing technology transfer document.

□ **Supplementary TePP Fund (STF)** upto Rs. 5.00 lakhs to successful TePP innovators to those who have developed products / process at concepts proving stage under TePP phase – I, to refine technology for facilitating technology transfer to entrepreneurs. The activities supported are patent filling, testing

□ **Seamless Scale-up Support** for TePP Projects limited to the financial support of Rs. 30.0 lakhs. Proposals would be considered from successful TePP Innovators, who have developed products / process at concept proving stage under TePP phase – I for innovations having significant market to facilitate them to turn into an entrepreneur.

# 4

## Home Grown Technology (HGT)

4.1 The Phase I of the Home Grown Technology activity of TIFAC (HGT), carried out during the period 1993-2005, had focused on encouraging SME-led technology efforts. The aim was to facilitate further development work of bench scale technologies and validate their commercial viability by setting up a pilot production facility. The project funding in this first phase of HGT was predominantly in the nature of returnable, conditional grants.

4.2 HGT support was extended to 77 projects during 1993-2005. Out of this, 21 projects were implemented by laboratories for scaling up their technologies to pilot level and 56 projects were supported with SMEs.

4.3 Under the project titled "Development of haemoconcentrators for open heart surgery", adult and paediatric haemoconcentrators were

developed and ex-vivotrials were started. Haemoconcentrators on-line ultra filtration devices used for harvesting high haematocrit blood during an open heart surgery scenario wherein the patient's circulating blood volume undergoes considerable dilution due to priming fluids added in various devices that need to be interconnected with the patient's vascular system.

4.4 The project "Isolation & Characterization of Probiotics and formulation of symbiotic" has been completed. Symbiotics formulations & 4 probiotics formulations completed with stability studies & field trials.

4.5 TIFAC is now focusing on actions by the project implementers for commercializing these technologies and on the repayments that are due in the projects.



Probiotics-fermentors



Haemoconcentrators

This programme is under consideration for modification in approach



The activities of STM continued as regular activities of TIFAC during the year.

### 5.1 Sugar Production Technologies

The Sugar Technology Mission aims to focus on technology upgradation in the Indian Sugar industry through the use of latest environment friendly cost effective technologies, improvements in plant efficiencies, energy saving and reduction in utilization of various inputs.

### ACHIEVEMENTS:

#### 5.2 Technology Upgradation of Sugar Factories

The Mission has so far prepared detailed schemes for 43 sugar factories for the purpose of their technological upgradation. This has led to reduction in cost of conversion and improvements in capital output ratio.

The status of completed/on going technology upgradation projects is as under:

S.No.	Factory	Year	Status
1	Palwal Coop. Sugar Mills Ltd., Palwal, Distt. Faridabad Haryana	1996-97	DPR submitted to Haryana Federation of Coop., Sugar Mills Ltd., for implementation
2	Budhewal Coop. Sugar Mills, Budhewal, Ludhiana, Punjab	1997-98	DPR submitted. As insufficient sugarcane availability was anticipated, the project has been deferred.
3	Jind Coop. Sugar Mills Ltd., Jind, Haryana	1997-98	DPR submitted to Haryana Federation of Coop. Sugar Mills Ltd., for implementation
4	Shakumbari Sugar & Allied Industries Ltd., Saharanpur, UP	1999-00	DPR completed.
5	Dr. V.K. Patil SSK Ltd. Pravaranagar, Maharashtra	1999-00	DPR completed. Project under implementation.
6	Terna SSSK Ltd., Ternanagar, Maharashtra	1999-00	Project is under implementation
7	Shree Talala SKUM Ltd., Talala, Gujarat	1999-00	DPR Completed
8	Shree Bileshwar SKUM Ltd., Kodinar, Gujarat	1999-00	DPR completed.
9	Vishwasrao Naik SSK Ltd., Yeswantnagar, Maharashtra	1999-00	DPR completed.

Contd....

Contd....

S.No.	Factory	Year	Status
10	Rahuri SSK Ltd., Rahuri Maharashtra	2000-01	DPR Completed.
11	Ashoka SSK Ltd., Ahosknagar, Maharashtra	2001-02	DPR prepared and revised in 2005-06
12	Dharani Sugars Ltd., Polur, Tamil Nadu	2001-02	DPR prepared and revised in 2005-06
13	Jagadamba SSK Ltd., Maharashtra	2001-02	Detailed project report and financial Appraisal completed.
14	Bharat Sugar Mills, Sidhwalia Bihar	2002-03	Detailed project report revised on request of the sugar Mill.
15	Rana Sugars Ltd.,Buttar Savyan, Punjab	2002-03	DPR completed for implementation
16	Uttam Sugars Ltd., Libeerheri, Uttaranchal	2002-03	Project under implementation
17	Simbhaoli Sugar Mills, Chilwaria, U.P.	2003-04	DPR completed & submitted to FI for financial appraisal
18	Triveni Engineering & Industries Ltd., Khatauli, U.P.	2003-04	DPR completed & submitted to FI for financial appraisal
19	DSM Sugar, Mansurpur; U.P.	2004-05	Detailed Project Report completed, implementation in progress.
20	Uttam Sugars Ltd, Bijnore; U.P.	2004-05	DPR prepared for setting up of a modern green field project.
21	Ashok SSK. Ltd. Maharashtra	2005-06	DPR prepared
22	Gwallior Sugar Co Ltd., Dabra; M.P	2005-06	DPR prepared
23	Dharani Sugars Ltd, Polur; T.N	2005-06	DPR prepared

## 5.2 Evaluation of New Technologies

The Mission has also evaluated a number of modern technologies and has rendered financial support to 23 Nos. new technologies so far for their trials and evaluation. The work has led to benefits of improved sugar recovery, energy saving and improvements in sugar quality. There have

been about 230 replications already out of the successful new technologies.

In addition to 12 technologies, which had been successfully evaluated earlier and replicated a technology titled "Development of cost effective Fibrizer Hammer tips" is now ready for replication.

Follow up activities continued for development of the new technology projects initiated during the earlier years.

### Technology Projects under Implementation

- A Pilot project for clarification of sugar cane juice at a capacity of 20 m<sup>3</sup>/hr using S.S membrane and manufacture of refined quality sugar, has been initiated. The project is under implementation at the sugar mill of M/s Simbhaoli sugar mills Ltd, Simbhaoli, U.P. The 1<sup>st</sup> installment of TDA has been extended to M/s Simbhaoli sugar mills Ltd. for the purpose.
- In addition to the above, technologies viz. ADU-FSB-WHR Combination, a system to recover waste heat during generation of SO<sub>2</sub> gas in thin film sulphur furnace, Masecuite

Filter for separation of mother liquor and crystal, Short Retention Clarifier for clarification of sugarcane juice and NIR Technique for quick estimation of sugar content, were taken up for trial and evaluation. STM is reassessing the system design to achieve successful evaluation.

### 5.3 Replications

After successful trials, there have been about 30 replications of the eight successfully evaluated technologies in different sugar factories during the year 2005-06.

### 5.4 Overseas Assignment

The proposal of revival of sugar mills in Fiji is under implementation. The above task is in addition to the progress / work submitted and completed by STM.



Ethyl Lactate from Molasses Project Under Commissioning at Godavari Sugar Mills Samirwadi, Karnataka

## 6

## Fly Ash Utilization Programme (FAUP)

Fly Ash is fast becoming an industry in India with ash utilizations increasing from a meager 1 million tonne per year during 1994 (3% of 40 million tonne generation) to about 48 million tonne during the year 2005 - 06 (41% of 118 million tonne generation).

The Fly Ash Utilization Program continued at a regular activity of TIFAC during the year. The focus

of this year's activities of FAUP remained on monitoring and steering of earlier approved thirteen projects (list given below), facilitation of multiplier effects and dissemination of knowledge all across the country. A series of National Seminars – Cum - Business Meets was organized in different parts of the country on use of fly ash in various applications, culminating into an International Congress on Fly Ash Utilisation.

### 6.1 ONGOING PROJECTS

The list of ongoing projects is as below:

Sl.No.	Brief title of the Project	Implementing & Participating agencies
1.	High Volume flux bonded fly ash building components	RRL, Trivandrum ( M/s. KAP India Tiles, M/s. ST Joseph Tiles and CBRI, Roorkee are the participating agencies).
2.	Manufacture of cold setting structural brick/block with high volume of fly ash	RRL, Bhubaneshwar.
3.	Radioactivity analysis in fly ash	IOP, Bhubaneshwar
4.	Fly Ash as ameliorant for improving Forage Productivity in Bundelkhand Soils.	IGFRI, Jhansi
5.	Determination of rate of consolidation, flow rate, settlement and load bearing characteristics of Fly Ash slurry after stowing.	IIT, Kharagpur
6.	Granulometric and mineralogical evaluation of fly ash for Brick Making and Allied Civil Works in Northern Region.	CBRI, Roorkee
7.	Stowing of large volume of pond ash in underground mines at SCCL (M)	CMRI - Dhanbad, HWB / HWP (M), SCCL - Manuguru, CFRI - Dhanbad

Contd....

Contd....

Sl.No.	Brief title of the Project	Implementing & Participating agencies
8.	Fly Ash for efficient management of Irrigation water	Potash Research Institute of India, Gurgaon
9.	Development and Demonstration of HCSD System	IIT, Delhi
10.	Mathematical Modeling for the Mix Design of Cement Bonded Fly Ash Bricks	CBRI, Roorkee
11.	Use of higher volumes of fly ash in concretes for RC structures in different environments	CBRI, Roorkee
12.	Removal of pollutants from waste water using fly ash and sunlight	CMERI, Durgapur
13.	Design and Development of Process Technology for Separation of Cenospheres From Fly Ash – Laboratory Studies	RRL, Bhopal

All the projects are being continuously monitored and steered by a Project Monitoring Committee (PMC), which reviews the project status and progress regularly. The projects are progressing satisfactorily.

## 6.2 MAJOR HIGHLIGHTS

### 6.2.1 Starter Dyke with Pond Ash

The Starter Dyke for an ash pond has been constructed with pond ash. It has been constructed for 2 x 210 MW Expansion Unit of Parichha Thermal Power Station under the technical guidance of FAUP, TIFAC along with IIT Chennai & IIT Delhi. Earlier, either only soil or the pond ash mixed with soil was used for construction of Starter Dyke.

### 6.2.2 Replacement of 65% cement by Fly Ash in the construction of Dams (Roller Compacted Concrete Technology)

The construction for lower dam under Ghatghar Pumped Storage Scheme of Irrigation

Department, Govt. of Maharashtra using Roller Compacted Concrete (RCC) technology with high dosages of fly ash (about 65% replacement of cement by fly ash) is continuing.

### 6.2.3 Enhancement of fly ash Utilisation at MAHAGENCO: Impact of TIFAC - MAHAGENCO, MoU

Demonstration-cum-training programmes for use of fly ash in brick manufacturing were organized at all the seven Thermal Power Stations. Kisan Goshtis were organized to create awareness and confidence amongst farmers for use of fly ash in agriculture in the vicinity of Thermal Power Stations. For use of fly ash in mining sector, project sites have been identified.

As a result of concerted efforts of FAUP with seven thermal power stations, of MAHAGENCO, the ash utilization at the Thermal Power Stations (TPS) of MAHAGENCO has increased from about 12% during the year 2003 –2004 to about 30% during last quarter of reported year 2005-06.

#### 6.2.4 Series of National Seminars-cum Business Meets

A series of National Seminars-cum-Business Meets was organized by FAUP, TIFAC along with other stakeholder agencies on use of fly ash in various sectors are given in the table.

The series of National Seminars, which were also accompanied by exhibitions, site visits and business meets, culminated in an International

Congress-cum-Business Meet on fly ash utilization in December 2005.

The National Seminars – cum- Business Meets were attended by more than 150 people. During the seminar on Use of Fly Ash in Roads & Embankments site visits were organized to Allahabad bye-pass-II [where the construction of the 3 to 3.5 m high embankment with pond ash was in progress] and to Unchahar Thermal Power Station Ash Pond [from where the bulk

Sl. No.	Name of Seminar	Venue	Date
1.	Use of fly ash in Roads & Embankments	Allahabad	June 5-6 <sup>th</sup> , 2005
2.	Use of fly ash in Agriculture & Waste Land Development	Delhi	September 16 <sup>th</sup> , 2005
3.	Handling & Transportation of fly ash	Kolkata	October 24-25 <sup>th</sup> , 2005
4.	Use of fly ash in Mining Sector	Dhanbad	November 11 <sup>th</sup> , 2005
5.	International Congress	Delhi	December 4-7 <sup>th</sup> , 2005

transportation of pond ash to Allahabad bye-pass-II project was going on]. Fly Ash brick manufacturing unit at Unchahar was also visited. Site visit to Budge – Budge thermal power station was organized during Seminar on “Handling & Transportation of Fly Ash”.

#### 6.2.5 International Congress

□ Fly Ash Utilisation Programme (FAUP), TIFAC, organized an International Congress on “Fly Ash Utilization” during 4<sup>th</sup> – 7<sup>th</sup> December 2005 at Hotel Ashok, New Delhi. The Congress was inaugurated on 4<sup>th</sup> December by the then Hon’ble Minister of Power, (now late) Shri P.M. Sayeed and presided over by the Hon’ble Minister of State of Environmental & Forests, Shri Namo Narayan Meena. Shri Kapil Sibbal, Hon’ble Minister of Science & Technology delivered the keynote address. The Congress deliberated on the whole range of ash utilization aspects including its handling & transportation, beneficiation,

emerging areas, environmental issues, techno-economic policy, statutes etc. More than 600 delegates participated in the conference. More than 200 papers including about 40 foreign papers were presented in various technical sessions and poster sessions. Private and government organizations engaged in the area of fly ash exhibited their products / machinery/ technology/ expertise during the Congress.

- Site visits were organized for the participants to places of ash utilisation/ management in different areas like fly ash bricks, roads & embankment, handling & transportation of fly ash.
- Certificates were awarded for the best paper, best poster and best exhibition stall during the Congress.
- National Awards to recognize the exemplary work done by individuals / institutes / NGOs

/ organizations in the area of fly ash utilization in the country were jointly conferred by Ministry of Power, Ministry of Environment & Forests and Department of Science & Technology, Government of India during the Inaugural Session.

The awards were conferred under four categories (i) thermal power stations (a) equal to or more than 500 MW (b) less than 500 MW (ii) user agencies (a) fly ash based product manufacturers, and (b) end users of fly ash and its products (iii) research &

development and (iv) facilitating agencies. Certificate of Appreciation was also awarded to Thermal Power Stations for 'Hundred Per Cent Utilisation of Fly Ash on Sustainable Basis for Last Three Years'.

### 6.3 Facilitation

FAUP facilitated a large number of entrepreneurs/-research scholars/ other people working/ interested in the area of fly ash by providing technical guidance and relevant information in different areas of fly ash utilization



Products Developed Using 80% Fly Ash Through Firing Process Implemented by RRL Trivandrum



International Congress "Fly Ash India-2005"

## Advanced Composites Programme (ACP)

The Advanced Composites Programme has been instrumental in triggering an innovative mechanism by initiating projects in a wide spectrum of composite applications & their demonstration with the direct involvement of industries. The programme, while closely working with the industry has been instrumental in improving the technology base of Indian composite industry in terms of design, raw material selection, testing, certification and quality assurance along with their adaptation of advanced process techniques viz. RTM, VARTM, multi-axes CNC filament winding etc.

The ACP continued as a regular activity of TIFAC.

### Projects Completed during the period:

No. Projects	Partners
1 TIFAC Rehab Project for Tsunami Victims	SASTRA/Thanjavur & Adv. Composites
2 Composite Acoustic Enclosure	Supal FRP Pvt. Ltd, Hyderabad & IIT-Bombay Programme
3 Bamboo Composite Laminates	Embee Forest Products Pvt. Ltd., Kolkata & Dept. of Polymer Science & Technology, university of Calcutta
4 Composite Pressure Vessels	Kineco Pvt. Ltd., Panaji & IIT-Bombay

#### 7.1.1 Projects Completed in 2005-06

##### Initiatives for Rehabilitation of Tsunami Victims

The Advanced Composites Programme had earlier undertaken initiatives in rehabilitation of Tsunami victims. The work included distributing 55 nos. composite catamaran type motorized fishing boats and constructing 39 nos. community sheds (24 ft. long X 20 ft. wide X 12 ft. high) made of

#### 7.1 PROGRAMME ACHIEVEMENTS

Over 43 projects have been launched under the programme in active collaboration with the research institutes and composite industries. The sectors include *railways, automobiles, bio-medical & rehabilitation, industrial products, chemical processes, building & construction, marine, telecom* etc. In addition, the programme has focused on setting up special purpose technology development and design-cum-demonstration centres with specific tasks and targets. The programme has also been working towards human resource development of higher competence by inculcating pedagogy in composites. The programme also facilitates skill development and enhancement for the industry personnel.

natural fibre composites. The project was concluded in July 2005.

His Excellency the President of India visited the *community sheds* at *Akkaraipet* on June 30, 2005. Principal Scientific Adviser to Govt. of India & Chairman-TIFAC visited rehab project site at Palayar on July 19, 2005 and handed over community sheds and distributed composite fishing boats to the beneficiaries.



The sheds are being used as women development centre, health centre, library, vocational training centre, anganwadis etc. The sheds made of jute-coir composite boards for walls, roof and windows withstood weather variations and recent heavy monsoon in that area. The shelter design,

construction quality and the internal insulated ambience were very much appreciated by the beneficiaries. Similarly the fishermen too had found the composite boats, given by TIFAC, were quite sturdy and useful for the purpose.

## 7.2 ON-GOING PROJECTS

S.No.	Name of the Project	Partners
1.	Composite Bamboo Laminates & Accessories (Phase II)	Emmbee Forest Products Pvt. Ltd., Manabari
2.	Composite Interiors for Railway Passenger Coaches	Century Polymer Industries, Vadodara & IIT-Bombay
3.	Composite Interiors for Driver's Cabin in Diesel Locomotive	Black Burn Co. Pvt. Ltd., Kolkata & IIT-Bombay
4.	Development of Composite House Boats	M/s Samudra Shipyard Pvt Ltd, Aroor, IIT-Madras, IIT-Bombay & NGN Composites, Chennai
5.	Composite Applications Laboratory	IIT, Kharagpur
6.*	Composite Bracket Assembly for Overhead Railway Electric Traction	Permali Wallace Ltd., Bhopal
7.*	Composite Components for High-End Passenger Buses	Tech-Force Composites Pvt. Ltd., Indore
8.*	Composite High Speed Boats	Valeth High Tech Composites Pvt. Ltd., Kelambakkam
9.*	Study on Composite Products & Applications – A Technology Linked Business Opportunity	CP Consultants Pvt. Ltd., New Delhi
10.*	Development of Multi-Purpose Modular Housing System	IDC/IIT-Bombay

\* Projects commissioned during the year.

### Composite Bamboo Laminates & Accessories (Phase II)

Towards establishing an integrated and line-balanced production line at *Emmbee Forest Products Pvt. Ltd., Kolkata*, Phase-II of the project was launched in April 2005. Under this project, most of the bamboo pole and process waste generated during primary & secondary processing

would be utilized to produce bamboo flat boards and particleboards.

### Composites Interiors for Passenger Coaches in Railways

Under the project launched with *M/s. Century Polymers, Vadodara & IIT-Bombay*, design & fabrication of most of the composite components for the 8-berth bay, the wall panels, ceiling &

flooring along with various fittings viz. light fixtures, coat hooks, bottle holders, snack table, magazine holder etc. for AC-III tier coach have been completed. Modular composite partition panels with integrated berths were designed. For the side lower berth, the new design with three blocks arrangement is being finalized by Indian Railways. The middle block would have a foldable table underneath. On approval of the prototype by the Indian Railways, a passenger coach would be refurbished for field trials.

### **Composite Interiors for Diesel Locomotive Driver's Cabin**

Design of *composite interiors for diesel loco driver's cabin* has been completed with improved aesthetics & ergonomics under the project launched in partnership with M/s. *Black Burn & Co. Pvt. Ltd., Kolkata* with technology support from Industrial Design Centre/IIT-Bombay. A complete set of composite interiors was fabricated and the drivers' cabin of a diesel locomotive was fully furnished at Ratlam loco shed/Western Railway in January 2006. The locomotive with composite interiors has been flagged off for field trial for 6 months – the feedback from the users has been highly encouraging. The second diesel locomotive would be furnished with interior components, being fabricated by Black Burn for wider field trials. Apart from the new design concept, the project addressed the problems of heat & sound insulation, elegant window panelling & proper arrangement of gauges, provision of space for tools & kit boxes etc. for better operator comforts.

### **Development of Composite Houseboat for Tourism**

The project was taken up in partnership with M/s. *Samudra Shipyards Pvt. Ltd., Aroor* for improved aesthetics, boat stability, comfort level and maintainability.

For noise-free operation, highly resilient acoustic barrier used in the engine enclosure. Polymer concrete ballasts added inside the hull to improve boat stability.

### **Composite Applications Laboratory (CAL)**

CAL, being set up at the *Dept. of Chemical Engineering/IIT-Kharagpur*, has been conceptualized as an industry focused and industry oriented centre of excellence. Modern fabrication techniques such as 6-axes filament winding complete with 60 Tons hydraulic extractor unit and CADWIND software and Vacuum assisted resin transfer moulding (VARTM) system had been installed and commissioned at IIT.

The first training programme on introduction to composite technology for user agencies and Indian composite industry was convened during March 06-10, 2006. The training programme covered details on resins & fibres, their properties, composite products, natural fibre composites, various fabrication techniques for composites, testing procedure etc. followed by demonstration of fabrication of composite components by hand lay-up, filament winding & RTM processes.

### **Composite Bracket Assembly for Overhead Railway Electric Traction**

The project launched in partnership with *Permal Wallace Pvt. Ltd., Bhopal* aims at design & development of composite bracket assembly for overhead electric traction line as substitute to GI structure for Indian Railways. A few resin formulations have been worked upon to arrive at particular system suited for good insulation properties. As a next milestone, the prototype is being developed for field trials.

### **Development of Composite Components for High-End Passenger Buses**

The project, launched in partnership with M/s. *Tech-Force Composites Pvt. Ltd., Indore*, aimed to design & develop passenger bus components with improved aesthetics mainly for international market by providing unique styling, appropriate aerodynamic effect and components standardization. Tech-Force had designed, fabricated and supplied one complete set of prototype components for their client in Abu Dhabi. The development & fabrication of bus components involved prototype fabrication. On

receiving the feedback on field trials from the customer, Tech-Force would finalize the design of components.

### High Speed Composite Boats

The project on development of **high speed composite boats** was launched in collaboration with *M/s. Valeth High Tech Composites Pvt. Ltd., Kelambakkam* near Chennai. The project scope includes development of innovative design of composite high-speed boat complete with hull, superstructure and navigational aids. The speed range would be 20-30 knots with 16 m long hull. The boat is required to perform under adverse conditions of slamming by waves, fatigue out of prolonged operations as well as high vibrations. The boat would be developed with superior structural integrity and improved stability at critical operating conditions. The development of this class of composite boat using vacuum infusion moulding is being targeted.

### Study on Composite Products & Applications – A Technology Linked Business Opportunity

The aim is to take up a detailed study on composite products & applications with focus on technology linked business opportunities in partnership with *M/s. CP Consultants Pvt. Ltd., New Delhi*

The study would survey the Indian & international scenarios and prescribe an action plan in terms of technology development/transfer from the identified sources. The application avenues such as transportation, industrial uses, marine & off-shore, oil & gas, biomedical, building & construction, process equipment, sports & leisure and natural fibre composites would be addressed in the proposed study.

### Development of Multi-Purpose Modular Housing System

The project has been launched with *Industrial Design Centre, IIT-Bombay*. The project would target to design and develop prototype modular housing system in composite materials. The shelters would be designed to withstand extremes of weather and rigours of use. The target areas include rehabilitation sites, project site offices/accommodation, security enclosures, temporary classrooms/vocational training centres, booths etc.

## 7.3 NEW PROJECTS

- **Development of filament wound composite road tankers** - The project would aim at design & development of composite road tankers for transportation of corrosive acids/alkali, milk, water etc. The tanker would be filament wound using 4-axes CNC filament winding system.
- **Development of filament wound venturi scrubber along with the accessories** by using multi-axis CNC filament winding technique. This would result in considerable weight saving & reduced material wastage by optimizing the material use exactly catering to the strength requirement.
- **High Pressure filament wound pipes and pipe-fittings** - in line with the requirement of growing business for composite pipes in oil & gas sector, the project is being launched for developing glass reinforced epoxy pipes, 90° & 45° elbows, concentric & eccentric reducers, sockets for pipe joining & high-pressure gas cylinders.



Hon'ble President of India at Community Shed,  
Akkaraijet



Community Shed



Composite Houseboat

## Umbrella Scheme on Technology Vision 2020 Projects in Mission Mode (TV2020)

Follow up of Umbrella Scheme on Technology Vision 2020 Projects in Mission Mode in six identified sectors namely: I) Agriculture & Agro Food Processing, II) Road Construction and Transportation Equipment, III) Up gradation of Textile Machinery/Industry, IV) Health Care Services and Herbal/Natural Products, V) Up-gradation of Science, Engineering, Technical and professional Institutions Relevant to Industries, and VI) Targeted Programs in Other Important Areas, have been the main thrust during this year.

Highlights of achievements during the year are as follows:

### 8.1 AGRICULTURE & AGRO-FOOD PROCESSING

#### 8.1.1 Agriculture & Fisheries

##### A. Agriculture Projects:

TIFAC's Technology Vision 2020 document on Food and Agriculture envisaged that the demand for food grains will be in the range of 324 to 343 million tones by the year 2020, corresponding to growth rates of 5% and 7% respectively. Considering the lower level of yields in areas which are having potential for higher production, demonstration projects continued in the states of Bihar (Patna district), Eastern U. P. (Deoria & Ballia), Sikkim, Uttaranchal (Pinder Valley), Tamilnadu (Kancheepuram).

##### a. Ongoing Projects:

##### i. *Demonstration of Systems approach in Agriculture in low productive areas of Sone Command Distributaries, Patna*

Location: Sone Command Distributaries of Patna District, Bihar

The project aimed towards sustaining higher productivity in areas under Rice –Wheat cropping system following systems approach with emphasis on technology based interventions being implemented by Palliganj Vitarni Krishak Samiti (PVKS). The main activities during the year are as follows:

##### Farmer's Training for improved cultivation practices and Krishi Prasar Mela

The details of training provided relate to the areas of Improved package of practices in Rice (Kharif), Improved package of practices in Wheat and Pulses (Rabi), IPM in vegetables, Training on Fundamental of Agricultural Science, Training on Plant protection in paddy, Training on Farm implements and Training on Seed Production.

Krishi Prasar Mela was organized at Palliganj. About 4000 farmers participated in the mela. More than 200 questions/queries from farmers were answered by the scientists from ICAR Eastern Regional Complex, RAU Meethapur, ATMA Patna, KVK Barh. State Govt officials attended the mela. Reputed companies like Escorts, Paras fertilizers displayed their products.

##### Supply of improved seed and other agro inputs

Patliputra Beej Utpadak Swalambi Sahakari Samiti have started producing quality seeds (as Patliputra Beej) and also procured from other agencies and distributed to farmers in project area.

The project now emphasizes quality seed production through scientific management practices and seed certification.

Krishi Seva Kendra at PVKS also arranged other

agro inputs, e.g., Fertilisers, Pesticides, Rhizobium cultures (through RAU) and farm implements (Sprayers, zero till cum seed drill machines) to the farmers. Ten Pusa Kothars (Low cost grain storage structure, a technology developed by IARI, New Delhi) were constructed at project site under the supervision of experts from IARI. A group of 17 farmers and project staff were taken to various Research Institutes, e.g., IARI, NDRI, PAU, and GBPUAT for exposure visit in order to acquaint them with latest developments and improved practices in agriculture.

Impact assessment study and documentation of the project activities in audio-visual mode is now initiated.

ii. *Demonstration of systems approach in selected low productivity regions of Deoria district in Uttar Pradesh*

**Location:** Deoria district (Blocks: Deoria, Baitalpur, Bhaluani, Bhatparrani and Bankata)

The effort of increasing productivity of different crops (rice, wheat, pulses etc.) with adoption of systems approach continued.

During the year, different training cum interaction camps were organized at farmers' fields in the areas of cultivation practices of rice, wheat, gram & maize, integrated pest management, seed production and zero tillage machine.

Different varieties of seed of different crops were arranged for the farmers during the Rabi and Kharif seasons.

**Crop cultivation:** Improved cultivation practices have been adopted both by direct and secondary contact with farmers.

**Kisan mela:** In this year five kisan melas (two in Kharif and three in Rabi) were organised. Around 300 – 400 farmers participated in each kisan mela.

**Pusa Kothar:** Low cost seed/grain storage technology, developed by IARI, New Delhi was demonstrated at project site. Expert from IARI, New

Delhi gave hands on training to farmers on construction of pusa kothar. Seeing this, farmers constructed 6 more structures on their own.

**Exposure visit:** A visit to different reputed institutes like IIVR, Varanasi, CSA, Kanpur and Narendra Dev Agriculture University was organized for 20 farmers. Farmers were exposed to different agriculture activities, mechanization in agriculture etc. being carried out in different Institutes.



Kisan Mela at Deoria project site

iii. *Demonstration of systems approach in selected low productivity regions of Ballia district in Uttar Pradesh*

**Location:** Ballia district, U.P. (Block: Beruarbari, Maniar and Hanumanganj)

The efforts of increasing productivity of crops (rice & wheat) continued during the year.

**Trainings organized:** During the year different training camps were organized at farmers' fields.



Wheat crop at Ballia project site

**Kisan mela:** Three kisan melas were organized in three blocks as a part of the Information, Education and Communication.

**iv. Agriculture development project at Pinder valley, Uttaranchal**

**Location:** Pinder Valley, (Chamoli and Bageswar Districts), Uttaranchal

The project continued during the year. Under this project so far around 250 polyhouses have been erected in different villages of Pinder valley at three different altitudes and work is in progress for installation of 50 more polyhouses. Ten poly tunnels erected in the project area. Details of polyhouse construction given in the tables.

Training programmes were organized at a number of villages along the altitudinal variation of project area. The main aspects of the training programmes include:

- Improved cultivation technology of vegetable crops and their seed production under

District wise	
Name of the District	No. of Polyhouses constructed
Chamoli	180
Bageshwar	70
<b>Total</b>	<b>250</b>



Exhibition stall in Kisan Mela organized at Narain Bagar, Chamoli

polyhouse conditions,

- nursery development and cultivation of herbal & medicinal plants and
- Important aspects of Hill agriculture with special emphasis on protected cultivation of vegetables.

A Handbook in Hindi on 'Improved methods of vegetable and medicinal plants cultivation in hilly areas' published by TIFAC and it was released in the inaugural function of Kisan mela held on 13<sup>th</sup> Nov. 2005 at Narain Bagar, Chamoli. About 1000 farmers participated in the Kisan mela.

**v. Technology demonstration for higher income generation for farmers of Sikkim**

The project aimed to demonstrate improved disease free cultivation of large cardamom, ginger, citrus and vegetables continued during the year.

Activities at IARI, Kalimpong Centre provided

Altitude wise	
Altitude (Mts. above MSL)	No. of Polyhouses constructed
900 - 1300	87
1300 - 1800	63
1800 - 2400	100
<b>Total</b>	<b>250</b>



Release of Handbook on Improved methods of vegetable & medicinal plants cultivation

20,000 disease-free seedlings and 5000 disease-free suckers of large cardamom. These seedlings and suckers were tested for viruses in collaboration with ACVP, IARI, New Delhi and were distributed to farmers. Further, production of 1500 virus free seedlings and 200 virus-free grafted plants of Darjeeling orange were carried out by the Kalimpong Centre. Survey and surveillance of pests and diseases along with identifying virus-free orange mother plants in the fields was also carried out.



Disease free nuclear orange seedlings



Nursery of large cardamom saplings

**b) *Advanced Center for Plant Virology (ACPV), IARI, New Delhi***

ELISA Kit for detection of Chirke virus of large cardamom in diagnostic lab has been developed by the Advanced Center for Plant Virology (ACPV), IARI, New Delhi. The protocol for detection of this virus has also been finalized. Detection of Phurkey virus by PCR and dot blot techniques has also been carried out.

**c) *G B Pant Institute of Himalayan Environment and Development***

**Location:** Village Tarku, Chamgaon, Central Pandam, Tumin, Lingdok

Nine thousand one hundred large cardamom saplings of variety Bharlangay were distributed to 10 farmers of village Tumin and 1 farmer of village Lingdok. One hundred fifty grafted and nucelar seedlings (disease free) were distributed to five farmers of village Central Pandam. Growth of both large cardamom and citrus plants are satisfactory. These planting materials were produced by IARI Kalimpong Centre.

Poly tunnels constructed in last two years are being used by farmers for production of vegetables and their seeds.

A six days training programme on cultivation of vegetables and seed production in poly house was organized at IARI, New Delhi in which 6 farmers and two project staff participated.



Ginger cultivation at Sikkim

**vi. *Demonstration of Systems Approach in Agriculture and Cattle Development in Walajabad Panchyat Union, Kancheepuram district***

**Location:** Walajabad Panchayat Union, Kancheepuram, Tamilnadu



The project implementation continued during the year and the activities comprised Artificial insemination, Cattle health and fertility camp, crop demonstration and farmers training.

An impact assessment study was undertaken and video filming of the project activities is also being done.



Rice field at Kancheepuram

vii. Promotion of Medicinal and Aromatic plants in Paliganj area, Patna district

Location: Paliganj, Bihar

A new project for crop diversification and promotion of enterprise based activity has been under implementation by Gramin Vikas Pratisthan, Paliganj. The project is towards creation of awareness of medicinal and aromatic plants, farmer's training for cultivation, processing, establishment of processing facility etc.



Lemon grass plants at farmer's field

Three awareness camps (49 farmer's from 23 villages), farmer's training at HRDI Centre for Aromatic Plants (Dehradun) and at project areas (62 farmer's from 24 villages) have been organized for cultivation practices. Farmers have already started cultivation of Japanese Mint (0.5 acre) and Lemon grass var Krishna (1.5 acre) in project areas.

B. Fisheries Projects

The projects in this sector aim at production of high quality value added products from low value aquatic resources.

a. Completed projects

Two projects have been completed.

i. *Technology transfer to fisherwomen of some value added products from low cost sea fish*

This project implemented by Shaluk Fisherwomen's Cooperative Society Ltd., Captain Bhery, Kolkata in collaboration with Department of Fisheries, Govt. of West Bengal.

ii. *Production possibilities of value added fishery products from low cost fish/shellfish by the fisherwomen of West Bengal*

This project implemented by Tapuriaghata Nari Unayan Kendra, Tiljila, Kolkata in collaboration with Kolkata Centre of Central Institute of Fisheries Education.

II. Agro Food Processing

A. Milk & Product Processing Projects

The objective of this sector is to improve productivity & quality of milk and to increase processing of milk products by demonstrative model technology interventions. The thrust is on milk products and processing.

a. Ongoing projects

i. Documentary film 'Uday – The Dawn'

Depicting the success stories of technology demonstration projects and initiatives of TIFAC in

Milk Sector, have been disseminated to various State level Co-operative Milk Federations, District level Co-operative Milk Unions, National and State level Departments/ Institutions/ Agencies/ Organizations related to Dairy sector, Krishi Vigyan Kendras (KVK's) across the country etc. during this period.

**ii. A project on Clean Milk Production in West Bengal**

This project is under implementation in collaboration with West Bengal Co-operative Milk

Male	38
Female	36
<b>Total calves born through ET</b>	<b>74</b>

**B. Fruits and Vegetables Projects**

The Fruits & Vegetables sector emphasizes on post harvest management and value addition of horticultural produce through improved storage/ shelf life, packaging, by product & waste utilization to minimize post harvest losses and enhance requirement of quality produce at competitive costs.

New project proposals received in response to Advertisement in 4 newspapers covering the potential areas/states. The proposals are being evaluated.

A study on 'Current status of potato production in parts of West Bengal & suitability of potatoes grown in parts of West Bengal for processing different products' commissioned with Central Potato Research Institute (CPRI), Shimla.

**8.2 CORE GROUP ON AUTOMOTIVE R&D**

The Principal Scientific Adviser to the Government (PSA) held high level discussions (during January to March 2003) for enhancing Academia-Industry-Interactions, and the Automotive Sector had responded very well to this initiative. Subsequently TIFAC interacted with the Automotive Industry to enhance the Academia-Industry dialogue.

Producers' Federation, Kolkata at Ichhamati Milk Union in 24 Parganas (North) district and Bhagirathi Co-operative Milk Producers Union Ltd., at Murshidabad district in West Bengal.

**iii. Genetic improvement of rural dairy livestock for sustainable livelihood**

The project is being implemented by Bharatiya Agro Industries Foundation (BAIF), Pune. Under this project so far around 74 calves were born (12 calves during 2005-06) through Embryo Transfer Technology (ET), the details are as below:

An inter ministerial mechanism set up with two apex committees:

**Core-group on Automotive Research (C.A.R.)** was set up in April 2003, as an academia-industry interaction forum with a mandate to create a user-friendly database of scientists and to identify frontier technologies, so as to promote development of vibrant, world-class automotive systems, sub-systems & parts industry in India.

The CAR technology roadmap published in March 2006, and will be kept updated.

**CAR- Programme Advisory Committee (CAR-PAC)**

An inter-ministerial program for implementing the recommendations of C.A.R. has been developed. The apex body is the CAR-PAC with membership nominated by Department of Heavy Industries (DHI), Department of Information Technology (DIT) and Department of Science & Technology (DST) and Office of the PSA (PSAO). It has initiated 4 consortia projects and funding for these projects was provided by the Office of the PSA and the Department of Heavy Industries.

TIFAC is the lead Programme Implementation Agency, and will coordinate the implementation of most technology development consortia under CAR activity.

### Projects initiated:

- **Low cost engine management system for small engines (2 –3 wheelers).**

**Agencies:** IIT Madras, IIT Bombay, TVS Motors Ltd., and UCAL Fuel Systems.

This project aims at indigenous development of a low-cost, proof-of-concept engine management system (EMS) for 4-stroke (4S), direct-injection (DI) based, small (50-250cc) petrol engines. The initial results in the project are good.

- **Telematics project-I:** Intelligent and interactive telematics using emerging wireless technologies.

**Agency:** Amrita Labs, Amrita Vishwa Vidhyapeetham, Kollam.

The project aims to utilize WiFi access points to transform chosen bus stations into a hot zone to demonstrate fleet management, and passenger convenience systems in limited number of transport buses. The lab will develop and install Telematics Control and Monitoring System (TCM), Vehicle Tele-tracking unit (VTU), vehicle information appliance (VIA) with voice and video interface. It will also deploy wireless mesh network (WMN) with secure communications middleware (SCM).

- **Light weight automobile body components using Advanced High Strength Steel and modern metal-forming processes.**

**Agencies:** International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI), Hyderabad, Indian Institute of Technology Bombay; ProSIM, Bangalore; Tata Steel, Jamshedpur; Mahindra & Mahindra; Tata Motors Ltd.

This project aims at developing competence groups within the country along the entire value chain to assist Indian auto manufacturers in adopting the TWB and hydroforming technologies. A specific component like the long member of Tata Safari SUV is selected for

Hydroforming studies and the door inner of Mahindra Scorpio SUV is selected for TWB studies to enable validation. The Project would build on existing laser welding expertise at ARCI, capabilities in the area of formability at IIT Bombay and full-scale simulation competence at ProSIM. The methodology adopted involves a combination of laboratory scale experiments & analysis for optimization purposes, modeling studies and also full-scale simulation using FEM techniques.

- **Telematics Pilot project-II :** Vehicle Tracking and Control systems using GSM telephony and GPS location tracking.

**Agencies:** IIIT-Bangalore, Ashok Leyland, Harita Inforserve, Pallavan Transport Consultancy Services.

The project aims to develop telematics (VTC) system for the functional management of Koyambedu Bus Terminus at Chennai. Under VTC system, an approaching bus will be detected 5 km away, and parking bay will be assigned to a bus prior to its entry into terminus. Telematics units will be mounted in the buses. Telematics will offer facilities to passengers like time of arrival/ departure buses, help in route/ travel plan etc.

### 8.3 Upgradation of textile machinery

This sector aims to increase and strengthen the manufacturing capabilities of engineering industry in the area of textile machinery and to upgrade, develop and commercialize selected textile processes & components, equipment and machinery. Under this activity, TIFAC launched several projects with active participation by the industry, out of which 12 projects completed successfully so far.

**During the year the following projects were ongoing:**

- The project entitled "Design, Development and Manufacture of Continuous Bleaching Range" with M/s. Harish Enterprises Ltd, Mumbai which has object to integrate all the stages of bleaching process namely desizing,

washing, neutralizing and developing into one single process and save process inventory period considerably.

- The project on "Design and Development of Shuttlelees Weaving Machines and Ancillaries" with M/s. Industrial Engineering works, Bangalore which is planned to develop rapier loom and air-jet loom. A prototype of Rapid loom has already been developed for this project.

#### 8.4 Health Care and Herbal & Natural Products

The aim of this sector is to establish a good services and maintenance system in health care sector along with development, demonstration & commercialization of technologies, products and processes of selected herbal and natural products.

In regards to Herbal and Natural products, this sector aims to launch India in the global Herbal market in a competitive way. Also the sector aims to develop S&T plans linked to business by building up a chain for organized flow of produce with technology based value addition to consumers and there by boosting the linked entrepreneurs in exploiting the herbal wealth of the country.

##### a. Ongoing Projects:

- i. *Manufacturing of Microencapsulated Omega 3 Powder*



Micro-encapsulated Omega-3 Powder:  
Without coating (white) & with coating (colored)

**Aim:** The powder from fish oil, with applications for making capsules/tablets/health drinks, without fish smell can be a substitute for imported fish oil for omega-3 capsules.

**Implementing agency:** M/s. Arjuna Natural Extracts Ltd., Coimbatore.

##### ii. Mobile Hospital and Research Centre in Uttarakhand (Kumaon)

The aim of this project has been to bring advancements in modern medical sciences at the doorstep of the common man, who otherwise remain neglected of its benefits.

**Implementing Agency:** Birla Institute of Scientific Research, Bhimtal and is a joint project of TIFAC and Govt. of Uttarakhand, each sharing the recurring cost equally.

**Duration:** 5 Years (October 2002 to September 2007)

**Project site:** Champawat, Nainital, Almora, Bageshwar, Pithoragarh, Chamoloi districts of Uttarakhand.

**Progress:** The mobile clinic remained functional during the year and the total patients attended by the mobile clinic during the period April 2005 to March 2006 were 21402 including the revisits. The total numbers of patients since beginning of the project till March 2006 have been 64208. Taking in totality, around 630 camps were held. It is interesting to note that BPL comprises nearly 48% of the patients and for Ultrasound investigation they have even surpassed the 50% mark thus proving to be a boon to the people of Uttarakhand specially people belonging to BPL category.

##### iii. Mobile Hospital and Research Centre in Uttarakhand (Garhwal)

**Objective:** The project aims at improving the health status of the people of Garhwal region of Uttarakhand and includes addressing the health needs of the unreached and underprivileged population.

**Implementing agency:** Himalayan Institute Hospital Trust (HIHT), Dehradun

**Project site:** Garhwal

**Progress:** The project is being implemented and the action taken for procurement of mobile van as per design specifications.

### 8.5 Mission REACH

Mission REACH aims to turn out human resources of international standards imparting high quality education in chosen areas of high relevance to industry and society and also to create sustainable linkages between academia & industry. Mission REACH also aims to upgrade selected Engineering, Science & Technical institutes relevant to industry as centers of excellence and to broaden the level of education and also in order to meet the scientific and technological manpower demand in the advanced emerging areas.

Under Mission REACH (Relevance & Excellence in ACHieving new heights in educational institutions) launched in October 2000, 26 TIFAC-Centres of Relevance & Excellence (TIFAC-COREs) are functional now including five institutions in different areas as follows:

- Hindustan College of Engineering (Padur, Chennai) in 'Aircraft Maintenance'
- Jawaharlal Nehru Medical College (Wardha) in 'Interventional Radiology'
- Jawaharlal Nehru Technological University (Hyderabad) in 'Environmental Geomatics'
- Velammal College of Engineering (Chennai) in 'Pervasive Computing Technologies'
- Amrita Institute of Technology (Coimbatore) in 'Cyber Security'

A three-day Meet of TIFAC-COREs was organized at Madurai during November 24-26, 2005.

The Co-ordinators of all the 26 (21 existing and 5 new) TIFAC-COREs, the Heads of Institutions (in

which these Centers are located), experts associated with their Monitoring Committee, industrial partners, new prospective colleges and prospective industries and eminent persons from Government, Academia and Industries participated in this Meet. Dr. R. Chidambaram, Chairman, TIFAC and the Principal Scientific Advisor to the Government of India inaugurated the Meet and also presided over the Valedictory Session.

Some significant achievements at each TIFAC-COREs during last one year are presented below:

#### Mepco Schlenk College Sivakasi, Tamil Nadu (Industrial Safety)

- Third batch of M. E. (Industrial Safety) passed out, 100% placement.
- About 90 in-plant training programmes conducted benefiting over 16,000 workers in fireworks and matchworks industry ever since the CORE was established.
- Developed a prototype for Fireworks waste Disposal by confined burning.
- CORE bagged a sponsored project from DRDL, Hyderabad on Explosive Waste Disposal by confined burning

#### Dibrugarh University Dibrugarh, Assam (Clastic Petroleum Reservoir Engineering)

- M.Tech. (Petroleum Exploration & Production) course running successfully. Students finding placement in ONGC & OIL
- A workshop on 'Oil & Gas Prospects in North East and its Application in Economic Development of the Region' was organized on June10, 2005
- Symposium on 'Microbial Enhanced Oil Recovery (MEOR) Techniques' was organized on March 11, 2006 in association with ONGC.

**Thapar Institute of Engineering & Technology, Patiala, Punjab  
(Agro & Industrial Biotechnology)**

- CORE continues supplying potato micro-tubers to Pepsi Food & Snack Division
- A short-term course on 'Commercial Plant Tissue Culture' was organized during Oct. 24-29, 2005.

**JSS College of Pharmacy, Ootacamund, Tamil Nadu (Herbal Drugs)**

- One week Quality Improvement Programme on 'Challenges in Standardizing Herbal/ Traditional Formulation' organized during March 1-8, 2006.
- 3-day Training programme on 'Formulation of Herbal Drugs' conducted during October 27-29, 2005.
- Spray-dryer & Extraction Unit being extensively used by regional industries.
- One-year PG diploma in 'Production and Quality Control in Medicinal Plant' jointly with Tamil Nadu Agricultural University, Coimbatore.

**PSG College of Technology, Coimbatore, Tamil Nadu (Product Design & Optimization and Collaborative Product Commerce)**

- Demonstrated the use of Rapid Prototyping technique for fabricating an implant for skull defect (cranioplasty with PMMA). This was possibly the first such effort in the country using which with a surgery was performed on a patient in Kovai Medical Centre Hospital, Coimbatore.
- Rendered consultancy to about 100 local as well as other companies for developing prototype.

**Shanmugha Arts, Science, Technology & Research Academy, Tanjore, Tamil Nadu**

**(Advanced Computing & Information Processing)**

- Virtual classroom established with a grant from Sun Microsystem
- Embedded Systems Lab established with a grant from M/s Windriver.
- Organized National Workshop on Embedded Systems (NWES) during May 9-11, 2005.

**National Institute of Industrial Engineering, Mumbai, Maharashtra (Ergonomics & Human Factors Engineering)**

- Diploma in Ergonomics (D. Erg) introduced from April'06. This is first programme of its kind in the country.
- Workshop on 'Ergo Methods & Guidelines' organized during September, 2005.

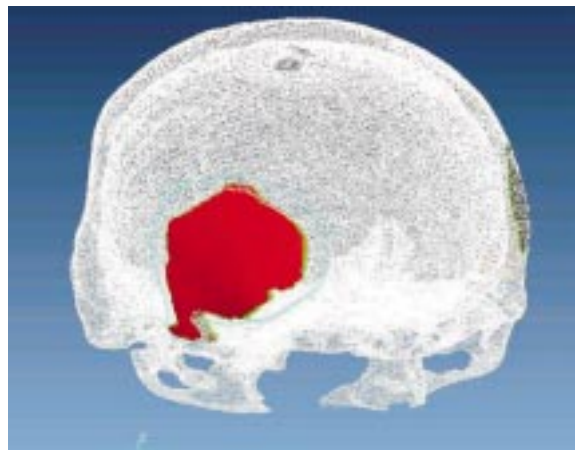
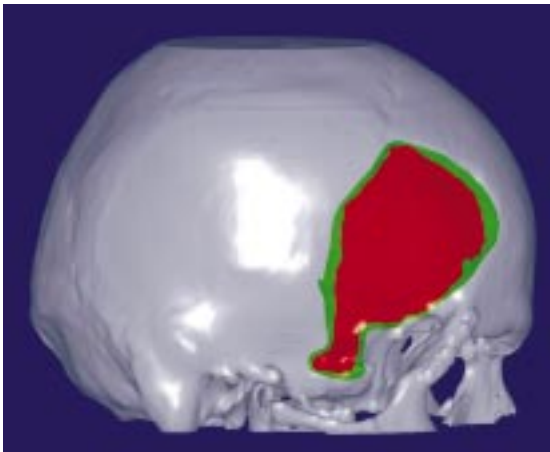
**Jabalpur Engineering College, Jabalpur, Madhya Pradesh (High Voltage & Power Systems Engineering)**

- MPSEB provided 22 transformers to TIFAC-CORE for repair.
- Short-term course on "Power System Fault Diagnosis and Control" was organized during December 26-31, 2005.
- Organized a two-day Workshop on 'Over voltage & Insulation coordination in Power Systems' during February 14-15, 2006.

**MS University, Vadodara, Gujarat (New Drug Delivery Systems)**

- The M.Pharm. (New Drug Delivery Systems) course introduced for the first time in the country is running successfully. All the students of first batch have already been placed.
- A National Symposium on 'Exploring Nanotechnology in Drug Delivery' was organized during July 29-30, 2005.

## Custom cranioplasty with PMMA using RAPID PROTOTYPING



**Arulmigu Kalasalingam College of Engineering, Srivilliputtur, Tamil Nadu (Network Engineering)**

- M. E. (Network Engineering) course introduced by CORE running successfully.
- Several short-term, certificate and diploma courses in Network Engineering, Network Security, Embedded Systems and Electronic Transaction are being offered.
- 3rd National Conference on "Network Engineering (NCON-2006) was organized during March 16-17, 2006.
- Established Pearson VUE Testing Centre

**Aravinda Eye Hospital & PG Institute of Ophthalmology, Madurai, Tamil Nadu (Diabetic Retinopathy)**

- The first prototype of a Solid State Green Laser (widely used for photo coagulation of tiny blood vessels that proliferate with the onset of Diabetic Retinopathy) has been developed. Completion of clinical trial is in final stages and commercial production would be done by next year
- Low cost 'Model Eye' has been developed for the first of its kind in India. It would be of immense help for ophthalmologist for I/O examination.

**Thaigarajar College of Engineering, Madurai, Tamil Nadu (Wireless Technologies)**

- M.E. (Wireless Technologies) course introduced for the first time by the CORE running successfully.
- Short-term course on 'VHDL & FPGA design for Wireless Broadband System' organized during September, 2005.
- National Conference on 'RF and Broadband Systems' organized during December 11-12, 2005

- Signed an MoU with M/s Motorola for RF Propagation measurements for rural India (3 villages) during December, 2005.

**MS Ramaiah School of Advanced Studie), Bangalore, Karnataka (Digital Image Processing)**

- M. Sc (Engg.) and Ph. D programme in 'Applied Digital Signal Processing' and other regular short-term courses are running successfully
- Developed software for Pap Smear and Lip Print analysis
- Developed mechanism for Hip Prosthesis through Image Processing
- IEEE Chapter on "Engineering in Medicine & Biology Society (EMBS)" under Bangalore Section was inaugurated on December 2, 2005

**Sarvajanik College of Engineering & Technology, Surat, Gujarat (Environmental Engineering)**

- M. Sc. (Environmental Science) and PG Diploma in Environmental Management & Pollution started from academic session 2005-06.
- An International training course on 'Anaerobic Industrial Wastewater Treatment' was organized during Feb 27-March 2, 2006 in association with Lettinga Associates Foundation, The Netherlands
- Mobile Pollution Van co-funded by Surat Municipal Corporation being used for air pollution monitoring in Surat city.

**National Institute of Technology, Hamirpur, Himachal Pradesh (Power Transformer Diagnostics)**

- Organized a short-term course on 'Transformer Engineering; Current trends and practices' during May 29-31, 2005.



### **Delhi College of Engineering, Delhi (Fibre Optics and Optical Communication)**

- CORE showcased its activities during the Optics East exhibition in Boston, USA during October 23-26, 2005.

### **Manipal Academy of Higher Education, Manipal, Karnataka (Pharmacogenomics)**

- M. Pharm (Pharmaceutical Biotechnology) & M.Sc (Medical Biotechnology) were introduced during the academic session of 2005-06
- A National Workshop on 'Pharmacogenomics' was organized during September 5-10, 2005
- Organized an Indo-Australian symposium on "Pharmacogenomics" on March 10, 2006

### **Vellore Institute of Technology, Vellore, Tamil Nadu (Automotive Electronics)**

- Conducted six customized Two-day programs in Automotive Electronics viz 'Embedded Technology for Automotive', 'Vehicle Safety and security Systems', 'RFID & Wireless Technology', 'In-vehicle Networking & GPS' 'Sensors & Data Acquisition for Automotive Application' and 'Modeling, Simulation and analysis using MATLAB / SIMULINK', with overwhelming participation from relevant industries.
- Technology demonstration in respect of projects on GPS based vehicle tracking / Navigation, Cruise control, RFID based vehicle access control, Power window with anti – pinch control, Controller area Network (CAN) protocol implementation, Adaptive illumination control have been completed.

### **Kumaraguru College of Technology, Coimbatore, Tamil Nadu (Textile Technology & Machinery)**

- Customized Certificate course for textile industries on 'Computer aided textile design

development' conducted successfully during March, 2006.

- International workshop on 'Nanotechnology and its Applications in Textiles' organized in collaboration with Texas Tech University, USA on December 17, 2005
- Workshop on "Biomaterials-application of medical textiles in health care" organized on March 25, 2006

### **Amrita Vishwa Vidyapeetham, Kochi, Kerala (Biomedical Technology)**

- Database of Diaphytomics-, plants with anti-diabetic properties with details of 1320 plants has been done completely by the students of TIFAC CORE
- Design of cost effective Insulin Pump is in advanced stages of finalization. The pump would cost 15-20 times less than the imported insulin pump.

### **E-Outreach**

E-Outreach is an activity aimed to create high quality digital content to be released in Open Source for the benefit of students, teachers and IT professionals in the country. Six events in the form of special workshops in IT and non-IT areas for teachers are proposed, which will generate open source contents of over 150 hrs for distribution at cost. Such contents can be bought by any institution at cost, loaded onto a local server, and freely made accessible to students and teachers through their Institutional LAN. Creation and distribution of Open Source content is being done by Kanwal Rekhi School of Information Technology (KReSIT) of the IIT Bombay, Mumbai.

### **Setting Up An E-learning Content System (ECS) and Distance E-learning Classrooms**

An MoU was signed between Department of Space, Department of Science and Technology and AMRITA Vishwa Vidyapeetham from the Indian side and regents of the University of California & Corporates like Microsoft and

Qualcomm from the US side, on 20th July, 2005 in Washington D.C, USA with an objective to facilitate networked delivery of high quality education to students in Engineering Colleges in India through EDUSAT.

As a follow up, an MoU has been signed between TIFAC and AMRITA for the project to set up an E-Learning Content System (Digital E-learning Studio) and Distance E-learning classrooms.

The objective of the project is to set up a state-of-the-art E-Learning Content System (ECS) at AMRITA and 30 Distance E-learning classrooms in 30 Institutions spread across the country.

## 8.6 TARGETTED PROGRAMMES IN OTHER IMPORTANT AREAS

### 8.6.1 Hydrogen Energy Program

(i) Joint RV-TIFAC-Hydrogen Economy Technology Program (RV-TIFAC-HETP) being carried out at RV College of Engineering, Bangalore

Three of the ongoing projects under Phase I of the RV-TIFAC-HETP have been approved for continuation under Phase II with revised scope and budget based on their achievements. The projects approved for continuation under Phase II are "Hydrogen induction into IC engine (Dual Fuel Mode)", "Development of Hydrogen fuelled gensets" and "Hydrogen production from bagasse and other waste materials using microbes".

#### Highlights of achievements:

- Fabrication of hydrogen fuel management system for petrol genset being done.
- Modifications in petrol genset to run on hydrogen have been carried out.
- Tests for obtaining base data with diesel fuel, using additional equipments being carried out.

- Experiments on production of hydrogen from bagasse with Rhodobacter sphaeroides being carried out.
- Analysis of gases through GC has been carried out with different temperature and pH conditions.
- An increase of 10% of hydrogen with Rhodobacter sphaeroides has been obtained over and above 21% from Clostridium species as reported earlier.
- Studies being carried out for standardization of methods for hydrogen production from Rhodobacter sphaeroides.

(ii) "Development of Polymer Electrolyte Membrane Water Electrolyzer (PEMWE) for Hydrogen Generation" being carried out at SPIC Science Foundation

- The first unit of PEMWE of capacity 0.5 NM<sup>3</sup>/hour at atmospheric pressure has been developed indigenously. Field trial of the first unit of PEMWE was demonstrated successfully at Meteorological Centre, Observatory, Thiruvananthapuram by inflating balloons with hydrogen generated from the PEMWE unit. IMD operators were also trained to operate the system. The unit was kept at the center for three months for testing.
- SPIC Science Foundation took the assignment of design, development, fabrication and field trial of higher capacity unit of PEMWE capable of generating 1 NM<sup>3</sup>/hour of hydrogen.

(iii) Technology Assessment studies for key energy technologies

As desired by Planning Commission, TIFAC initiated technology assessment studies for the preparation of background papers on key energy technologies with a view to prioritize technological interventions and investment opportunities in the areas of In-situ coal gasification, Solar PV, Solar

Thermal, Offshore wind and Bioenergy. The studies would recommend appropriate technology interventions, policy interventions, market adaptation and specific R&D and technology development / commercialization projects for India.

The studies have been commissioned with the following organizations:

Solar PV - Indian Association for the Cultivation of Science (IACS), Kolkata.

Solar Thermal – Vellore Institute of Technology (VIT), Vellore.

In-situ Coal gasification – Central Mining Research Institute (CMRI), Dhanbad.

Off-shore Wind – Centre for Wind Energy Technology (CWET), Chennai.

Bio-energy – Integrated Research and Action for Development (IRADe), New Delhi.

### 8.6.2 Synergizing S&T with Judicial Processes

This sector aims to undertake activities leading to a higher level of interfacing between S&T and Judicial processes with an objective to enhance the speed & degree of fair dispensation of justice.

The following projects were initiated as per the recommendation of Apex Committee:

A. **Training the Trainers of State Judicial Academies on S&T Applications in Law and Administration:** The training programme was conducted successfully in March 2006 at National Judicial Academy, Bhopal with 24 participants representing almost all the State Judicial Academies of India. Training was focused on Information Technology, DNA finger printing & evidence, computer forensic methods, Cyber forensic etc. The outcome of the programme was the preparation of curricula by the representatives of State Judicial Academies,

for conducted the training programme in the respective judicial academies.

B. **Normative Data for Brain Electrical Activation Profiling:** The project was initiated with Forensics Science Laboratory Gandhi Nagar, Gujarat with the objective to conduct experiments and studies for brain fingerprint profiling of individuals in order to establish the validity of this technique and standardize it as an acceptable form of opinion evidence in the court of law.

C. **Tamperproof & Secure Courtroom Digital Recording & Video Conferencing System:** A tamperproof & secure Courtroom Recording System for digitally recording and storing the courtroom proceedings and hearings alongwith the retrieval and authentication system. Also, a videoconferencing system of a courtroom, forensic lab, police station & jail also been envisaged. This will be implemented by CDAC-Noida, Directorate of Forensics Science, New Delhi & Directorate of Forensics Science, Gandhi Nagar.

D. **Digital Pen & Paper Technology for capturing the information at police station:** This project was initiated with Mumbai police in technical collaboration with M/s Impact Systems Pvt. Ltd., Pune. The information that is created at police station through Integrated Investigation Forms (IIFs) is to be captured through Digital Pen to facilitate its storage in a digital format, rapid transmission to supervisory officers and swift retrieval of this information based on key words.

E. **Crime Scene Recording System:** This project was approved by Apex Committee and to be initiated with M/s Encore Software Ltd., Bangalore and Bangalore Police using a portable computing device for tamperproof acquisition, storage and retrieval of Crime Scene Data for subsequent use in judicial processes.

### 8.6.3 Pottery Sector

The programs aims to infuse modern technology for making high value and high quality products to fetch higher income for the rural potters. The two projects undertaken earlier are:

- **Shri Sarvodaya Glaze Pottery Sahkari Mandli Ltd.,** Mehsana, Gujarat for upgrading their stoneware products to Bone China products. Project is in progress.
- **Ceramic Centre of Rural Development (CCRD):** The project envisaged upgrading the existing stoneware production to Bone China to meet the current market demand and fetch higher return.

The production of Bone China in the Centre has commenced.

A Study has been commissioned primarily focusing on identification of major rural pottery

clusters around the country, their technological status and the different programmes undertaken towards their technological upgradation.

The study will also present an action plan for undertaking technology upgradation initiatives.

### 8.6.4 Ropeways

TIFAC has put up a material ropeway system between village Jiyari and an area near Bhawali, Almora Road, Near Almora, Uttaranchal. The ropeways were put up as part of an initiative to develop and demonstrate technologies to mitigate the hardship of the people living in hilly regions. Commissioning work had been done under supervision of RITES.

Trial operations undertaken. Training also imparted to local village people to operate the ropeway.

# 9

## National Mission on Bamboo Applications (NMBA)

### Objectives

The key objectives of the Mission are to promote value addition and commercialization of bamboo products leading to economic opportunity, employment, environmental management, entrepreneurship and export.

The Mission seeks to:

- Develop and promote environment friendly, value-added bamboo based products, practices, technology & processes, including wood substitutes to reduce pressure on scarce timber resources
- Promote innovative design capabilities, fabrications techniques & testing methodologies
- Improve industry-lab-user linkages for collaborative technology development & transfer

- Effect inter-institutional/industry interaction, in the domestic and international arenas for technology sourcing, absorption & dissemination
- Provide financial assistance on repayable basis for risk minimisation towards new product & market development.
- Development small & medium enterprises
- Empower people at the grass-root level encompassing farmers, artisans and other stakeholders for more employment generation with improved remunerative opportunities.

Programme wise physical and technical achievements during 2005-06

### 9.1 Composites & Wood Substitutes

#### A. Targeted activities:

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01. Develop integrated model of composite manufacture, based on primary producers in the cottage/ tiny enterprise segments, & a number of industrial scale manufacturers

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02. Establish at least 2 manufacturing units in each major product segment, and a total of at least 10 units.

1. Sliver and flattened bamboo based model developed for shuttering board/ flooring – implemented in Arunachal Pradesh and Assam.

2. Bamboo mat – jute composite roofing, cladding, doors and windows prepared and commercialised at AB Composites, Kolkata.
3. Pilot production and training facility for bamboo composite material established at RV-TIFAC CDC
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4.	A project for bamboo moulded and composite projects (Srivari Engineering) has been approved at Hosur, Tamil Nadu.
5.	Flooring board/composite bamboo laminates production unit established at Manabari, North Bengal.
6.	Closed plywood unit partially converted to bamboo plywood and re-started (KITPLY, Margherita, Assam). Bamboo composite material (shuttering & marine grade plywood, cladding) as well as bamboo particle board being produced with NMBA technical support.
7.	Bamboo Mat Board (BMB) production facility (Plyboo) at Berhampur, Orissa.
8.	Bamboo Flooring & panel board unit being established at Sibsagar, Assam.

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03. Create awareness of material through promotion/ usage/ adoption by user groups in the private sector & the public domain.	9. Product promotion scheme initiated under which users have been supported by providing grant for procurement of composite material
	10. Product range displayed, along with technical specifications at workshops/ seminars/ exhibitions.

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**B. Support & related activities:**

- 11. Market assessment studies on bamboo flooring & on bamboo furniture components carried out; subsequently published & disseminated.
- 12. Development of 'Ready Reckoner' taken up - to meet information needs of those interested in use of bamboo for structural and other uses - investors, buyers, vendors, architects, engineers and users. It will be available in print and electronic form by end-September 2005.

**9.2 Construction & Structural Applications**

**A. Targeted activities:**

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04. Develop at least three models/ variants of low cost/ mass housing, appropriate for	13. Workshop held at Nagpur in the last week of September 2005, to disseminate, the code
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different agro-climatic zones and regions, utilising whole bamboo as well as bamboo composite material, and to carry out field demonstrations, preferably clustered, of such models

of practices developed for low cost housing under the aegis of VNIT Nagpur and Sampooran Bamboo Kendra. NGOs/ construction groups from Uttar Pradesh, Maharashtra, Madhya Pradesh, Himachal Pradesh, Orissa, West Bengal and the Andamans participated in the workshop.

14. Further efforts are being made to develop a system of prefabricated lattice construction consisting of prefabricated columns, beams trusses and purlins. 6 innovative structures completed at/ near Guwahati based on use of using whole bamboo namely Bambusa balcooa which is available in abundance in the North East.
15. Pre-fabricated structures developed by a) RV-TIFAC CDC, b) Arunachal Plywoods (APIL), c) AB Composites, Kolkata. 3 RV-TIFAC structures delivered to Army for multi-locational trials in March 2005. Structure at Dinjan inspected by NMBA in April 2005. APIL structures erected/ demonstrated at Pragati Maidan (April 2005); subsequently erected at New Delhi location. 2 community structures fabricated for Khammam under MPLADS. Prefab structures (APIL, AB demonstrated at Andamans with Army (CINC) and with CE Andamans PWD.

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05. Develop and demonstrate at least three models of high end and architecturally complex structures involving the use of bamboo, as well as other materials.

16. 2 workshops (August 2004 at Gurgaon, and March 2005 at Kohima) held on high end structures, with technical inputs from Simon Velez of Colombia. Core group of trained workers formed by Government of Nagaland (almost 90 trained workers). Design, other pre-elements of structures at Garden of Five Senses (DTTDC), New Delhi completed. For supervision, documentation, testing IIT Roorkee approached. Demonstration structure planned for construction.
17. Govt of Nagaland has constructed a large span structure (32000 ft<sup>2</sup>) with whole bamboo grouted columns, with NMBA support, inducting bamboo mat based composite roofing material at Kisama.

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| <p>06. Develop and disseminate training manuals for building with bamboo, and provide organisations like HUDCO, BMTPC and Rural Development Departments with training modules at different levels.</p> | <p>18. Building manual (TRADA-IPIRTI) published. Second manual, based on construction systems developed in Wardha under preparation. Third manual, based on constructional systems developed in North East under preparation</p> <p>19. Inclusion of Chapter (3B) on 'Building with Bamboo' in National Building Code, with BIS – activity completed.</p> <p>20. Awareness creation and training exercise held at IIT Roorkee on building with bamboo – March 2005</p> |
| <p>07. Develop processes for treatment of bamboo for structural applications as well as techniques to prevent degradation of bamboo in ground contact</p>  | <p>21. BIS recommended procedures reviewed with the assistance of sectoral specialists. Recommended preservation/ treatment processes brought together in the form of a training manual, presently under review/ finalisation.</p> <p>22. Treatment procedures for structural applications developed, utilised at Dimapur, Konkan and Bhopal</p>   |
| <p>08. Encourage the acceptance by user agencies of bamboo composite material for structural applications, and promote its usage amongst key user groups.</p>  | <p>23. Prototyping/ demonstration activities being carried out; user agencies involved.</p> <p>24. Indian Army carrying out user trials (no cost/ no commitment) basis for prefab structures.</p> <p>25. Demonstrative activity for clustered rural housing structures (Government of Tripura/ HUDCO Building Centre), with mat-fibre glass roofing on Indira Awas Yojana pattern.</p>   |
| <p>09. Develop &amp; demonstrate packages of practices for use of bamboo in non-constructional structural applications - soil stabilisation, landslip protection &amp; erosion control.</p>            | <p>26. Packages of practices developed for biotic shelter belts, including a) Wind breaks, b) Embankment &amp; landslip protection c) Camouflage (canopy cover &amp; vertical screening) for Army, d) buffer zones &amp; e) perimeter fencing based on thorny bamboo (Bambusa bambos).</p> <p>27. Discussions underway with Indian Army for different applications.</p> <p>28. IV Corps (Indian Army) has taken up perimeter fencing at Corps HQ, and at 2 Mtn</p>     |
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Div HQ on a trial basis. Plant material (1,000 plants of *Bambusa bambos*) provided from Chessa (SFRI Itanagar).

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**B. Support & related activities:**

29. For tsunami affected areas in the Andamans, acceptance in principle by the Planning Commission CPWD and the Andaman Government has been secured for use of bamboo composite materials for use in the local construction. It has been conveyed that NMBA would be able to meet the complete requirement of the Tsunami affected housing of 3.3 lakhs sq metres of wall panels, 2 lakhs sq metre roof sheeting and 33 thousand each of doors and windows. This data required for houses in the islands has already been projected to the Planning Commission. This would give a big opening to the use of such products and an impetus at the Bamboo based manufacturers. In order to ensure that proper standards are adhered, NMBA has engaged IPIRTI for not only to do the sample testing of various products but also to carryout surveillance testing of each consignment as an when it is sent to the users.
30. The Andaman and Nicobar Command of the Defense Service have requested demonstration of engineered bamboo products material for 4 troop shelters, on Car Nicobar and Little Nicobar Island. This work is being implemented through the local Defense Works services.
31. The Andaman and Nicobar Government through the APWD have come forward to construct four more structures in the various islands to demonstrate and validate bamboo roofing and cladding. The bamboo based technologies are being used along with local space design and functional areas as per the local user requirement
32. The ILFS and Tamil Nadu Government have agreed to undertake to try out prefabricate bamboo based structure along the East Coast road with bamboo plantation to stabilize the embankment and to act as wind breaks for the East Coast Road.
33. A rural housing programme for 25 Indira Awas Yojana units at Tripura demonstrating the complete combination of bamboo based roofing and cladding is under completion.
34. Prefabricated structures based on APIL model have been procured for various locations in Delhi namely ITPO, DST ITDC AHQ Defence and Delhi Government etc. These structures are of size 8'X 6' and 10' X12' and 16'X16'
35. NMBA has also supported and demonstrated use of bamboo corrugated sheets at Haldwani and Kathgodam under the Uttaranchal Bamboo Board. As a result of presentation to the Western Command of Defense Services at Ambala. Requirements have been projected for a Bamboo plantation model at Ambala under 2 Corps. Demonstration units are being set up through local support at Khammam (Andhra Pradesh), Chandni Chowk MCD Delhi and in Amethi Uttar Pradesh.
36. Rehabilitation of a 50 bed Maternity & Child Wing of the District Hospital at Pasighat (Arunachal Pradesh), using bamboo engineered materials – roofing and cladding. This project would not only demonstrate the cost effective way to use bamboo products, but would also put into operation the much needed medical facilities in this remote area, the wing has been non-operational for the last 10 years.
37. Detailed discussion have been held with representatives of World Bank, Planning Commission and Southern States for inclusion of bamboo based products in the Post Tsunami structures supported by World Bank being built in these states. The Government

of Tamil Nadu and Kerala have expressed their interest for setting up such structure in their areas.

38. The BIS standards applicable to Bamboo Based Engineered material have been compiled and circulated.

Pre-fabricated structures:

39. Project in Bodoland Territorial Council (BTC) area for community halls with NMBA/ BTC taken up for community structures on cost-sharing for 16 community structures.
40. Project taken up in Outer Manipur for low cost pre-fabricated structures (Community halls, 10 structures, 480 sq. feet with bamboo composite doors, windows, cladding, verticals and roofing, and PCC flooring. Structures being erected with 50% contribution from MPLADS; Rs. 10 lakhs contribution received.

41. A project (Arunachal Pradesh) taken up to develop a cluster of 20 houses in village Niglok under Ruksin block, through the BDO, Ruksin, and with cost-sharing through local MLA LADS funds, to demonstrate structural applications for housing in rural areas. Design modifications to the housing structures carried out to conform to local tribal context and traditional usage patterns, with stilt pattern (replaced with RCC pillars), and chimney to accommodate hearth, with alterations to roofing. Structures erected & completed in 2 months, inaugurated by CM Arunachal on 18 December 2005.

42. Two community halls and 2 Indira Awas Yojana houses (1520 sq. ft.) are being made by the Government of Andhra Pradesh at Khammam (with support from MPLADS funds) with the support of NMBA by induction of bamboo based roofing materials and cladding.

### 9.3 Food & Agro-Processing

#### A. Targeted activities:

10. Acceptance by BIS of standards for processed shoot prepared by the Mission	43. Draft standards for processed bamboo shoot prepared and furnished to BIS
11. Development of technology packages for a) entrepreneurial scale activity, & b) community level activity for processing bamboo shoot	44. Shoot processing standardised using different processes and technology packages at processing levels ranging from 200 TPA to 900 TPA formulated.  45. Community level processing technology, producing up to 100 Kg of processed shoot on a daily basis, standardised, training manual prepared and disseminated.
12. Establishment of at least three entrepreneurial units based on this technology	46. Nagaland Foods (NMBA commitment of Rs. 1.45 crores) has commenced commercial production in July 2005 at the Industrial Estate Dimapur (Ganeshnagar) have been acquired. FPO Licence issued by MFPI. The product (processed bamboo shoots in fresh water) is presently being marketed in 400 gm and 800 gm tins; ex-factory price of around

	Rs. 55/- per Kg. 15,000 tins produced in July 2005.
	47. Trial production has commenced at Luit Valley Food Products in Jorhat.
13. Demonstrations at different locations in shoot producing areas (at least 24) for adoption by communities and by RD Departments.	48. 13 demonstrations carried out in 2003-2004 drawing an overwhelming response. Demonstrations carried out in 2005 during shoot season at Jalpaiguri (West Bengal), Namchi (Sikkim), Khammam (Andhra) and Wynad (Kerala).
<b>B. Support &amp; related activities:</b>	during training workshops/ demonstrations). Second edition of training manual currently being prepared, incorporating additional information and the experience gained in training workshops over the preceding 2 years. Second edition to be released in September 2005.
49. Testing of bamboo shoots carried out at Midlands, New Delhi and at FRESH, Bangalore. Tests confirm negligible fat, high dietary fibre, 3-4% protein. Tests also confirm extractability at about 25 – 29 % of raw shoot, and varying with species.	
50. Training manual on processing of bamboo shoot at community/ tiny enterprise level prepared and disseminated as a low priced publication (also utilised as training material	51. Market survey for bamboo shoot carried out, & cuisine development exercise taken up with FRESH Bangalore, extending bamboo shoot usage to different Indian cuisines.
<b>9.4 Industrial products</b>	
<b>A. Targeted activities:</b>	
14. Establishment of at least 2 demonstrative units for electricity/ thermal energy in the 1 Mw class, utilising bamboo waste.	Establishment of 2 x 1 Mw thermal gasifier units each at HPC (Jagi Road & Silchar units), being commissioned shortly
15. Establishment of at least 6 units (100Kw – 500 Kw) to meet captive needs	A separate activity was carried out with Development Alternatives for establishment of optimised system for charcoal production, briquetting & gasification. Production in beehive kiln, indirect method of heating & direct heating method carried out; the cost of production was lowest in the brick kiln method. Development of village level enterprise under process. The project with DA has been completed and report has been submitted by DA. It has been established that the cost of production of charcoal is minimum in the brick kiln as opposed to the indirect method and drum available at DA facilities.

16. Support the establishment of at least three units for manufacture of charcoal.	Demonstration of 2 brick kilns at DA Taragram under process. The activity also includes briquetting of charcoal to improve value addition. As an extension of the first activity, 2 brick kilns are being installed under supervision of CP Consultants. A briquetting machine has also been finalised (from Shree Engineers) based on assessment of the different machines available in the market.
17. Support the establishment of at least nine units in the 50 Kw – 100 Kw class for villages/ communities, off-grid and remote locations.	Discussions on with State Governments – with Arunachal Pradesh; two tentative locations have been identified in the Siang valley.  Government of Nagaland has identified its preference for 25 Kwe and below class.
18. Establish one demonstrative unit for production of bamboo fibre through the non-pulping route and conversion to fabric	IIT Delhi (Textile Engineering) is carrying out a project for development & standardisation of technology for bamboo based fibre production, on the non-destructive, non-pulping route, seeking to establish the process and parameters, working with a pilot plant.  Birla Research Institute for Applied Sciences (BRIAS), Nagda validating bamboo fibre production through pulping route to determine a) optimum process conditions and production of viscose fibre for dissolving grade pulp from bamboo chips, b) analysis of the pulp & fibre for fibre moisture absorption capacity and antibacterial properties. The bamboo has since been converted to pulp and fibre. Prehydrolysis-Kraft cooking of bamboo chips carried out to obtain brown stock pulp which was bleached by C-E1-H- E2-D-CC-SO2 bleaching sequence to obtain bleached dissolving grade pulp in pilot plant. Initially few batches were carried out to get optimum processing conditions. Detailed analysis of all bleached pulp batches was carried out. Five batches were evaluated for viscose making and rayon fiber production in the viscose pilot plant. 34.42 to 35.06% bleached pulp yield was obtained on bamboo chips (o.d.wt/ o.d.wt) Pulp obtained in all the batches had acceptable properties of dissolving grade pulp. Five pulp batches were successfully processed to viscose fiber of acceptable properties in our viscose pilot plant. It was concluded that the bamboo (chips

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provided by NMBA) is a potential raw material for production of rayon grade pulp. 8 kg of produced fibre sent to Department of Textile Technology, IIT-Delhi, for performance evaluation of produced fibre in downstream textile value chains. A sample of produced fibre sent to SIIR to evaluate anti-bacterial properties. 10 kgs of produced pulp has been sent to SIIR for lab scale pilot production of non-woven hygiene products.

SIIR Delhi is exploring the feasibility of utilising of bamboo fibre for non woven applications such as absorbent material for hygiene applications and wound dressings.

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#### **B. Support & related activities:**

A demonstrative programme for induction of charcoal kilns in batteries of 4-5 kilns each taken up in Manipur, Nagaland, Bodoland, Mizoram & Meghalaya.

Development of 2 x 5 Kwe gasifiers for the Indian Army; at forward locations in Eastern sector, at remote/ isolated posts.

Establishment of 25 Kwe (35 Kg/hr, open top, twin air entry, downdraft along with bio-mass cutter) taken up at Forest Complex, Basistha, Guwahati.

Mobile gasifiers developed (1 kg/ hour) – one placed with Central University, Tezpur and one with the Indian Army. Only one training programme has been held at Tezpur. As per proposal three training programme in a project year, for two years would be held. Principal Coordinator, Prof. Sadhan Mahapatra is on leave. Letters have been issued for holding immediately holding the trainings have been issued but no reply has been received.

Training programmes carried out at IISc Bangalore for a) Army personnel (November 2004) & b) entrepreneurs/ Government agencies from North East (March 2005) and at Central University, Tezpur on bamboo based gasifiers, using mobile gasifier, by Central University, Tezpur – November 2004.

Development of 85 Kg/hr (75 kwe delivered) gasifier with producer gas engine taken up in

demonstrative mode for bamboo training & processing facility at Dimapur, Nagaland being implemented by Nagaland Bamboo Development Agency (NBDA) on cost sharing basis.

Development of 25 kwe fabricated gasifier with producer gas engine taken up for residential school at Namsai, Lohit District in Arunachal Pradesh.

Development of 25 kwe fabricated gasifier with producer gas engine taken up for residential school in Arunachal Pradesh.

Usage of bamboo composite material for pallets investigated, as substitute for present wooden pallets used by the Tea industry (ICD Amingaon). Prototypes developed, using bamboo plywood from APIL; being re-prototyped, incorporating user modifications, & to make them more price-competitive.

Development of product applications with bamboo fibre reinforced thermoplasts is being pursued with NFC International Mittweida, Germany and CIPET in a four phase activity covering a) Materials specification, b) Compounding and testing, c) Product selection and injection moulding experiments and d) Definition of recipes and final materials specification, leading to subsequent commercialisation. Project was initiated in June. As per time line indicated in MoU, material specification and fibre production and

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compounding need to be completed within a month of initiation. Reminder has been sent to CIPET for providing a report on these activities.

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## 9.5 Product Applications - Small Enterprise

### A. Targeted activities:

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| 19. Establish at least 10 units for manufacture of slivers & other intermediates utilising mechanised equipment developed by the Mission.                  | <p>One unit (Deva Bamboo &amp; Allied Industries) established at Imphal, Manipur, in collaboration with NEDFi. The unit has a production capacity of 1000 kg of bamboo sticks per day. A small brick kiln has been made for production of charcoal. Yield of 22– 5% obtained. Commercial production has commenced in November 2005.</p> <p>Establishment of 3 sliver/ stick making units in process. Unit at Bongaigaon (SP Fabricators) in operation. Unit at Tinsukia (Swaranga).</p>  |
| 20. Establish at least 2 mechanised blind making units   | <p>Mechanised blind making unit established by Vighnaraj Bamboo Products, Guwahati. NMBA provided technology support/ specialist advice &amp; developed configuration of equipment. The Mission is supporting the induction of equipment for carbonisation and bleaching, and of mechanised looms. The Mission has trained Vighnaraj workers (IIT Delhi) in use of commercial natural dyes. Machines have been installed at site &amp; trial runs have commenced.</p>  |
| 21. Demonstrate commercial dyes and their applicability to bamboo products in different locations for craft and artisan groups (at least 4 demonstrations) | <p>Development and standardization of technology for application of natural colorants on bamboo and bamboo products completed by IIT Delhi (Textile Engineering). Suitable dyes from the range of commercially available dyes were short listed. Each dye was tested and checked for reproducibility and for basic parameters like colour fastness and stability, and tested on bamboo intermediates &amp; products. Shade cards with dyed bamboo strips &amp; slivers were prepared. Originally less emphasis was given to coatings &amp; lacquers. But this was later taken up on the request of round bamboo furniture manufacturers. A basic document outlining processes and information about the dyes was prepared and circulated. The document has been modified based on feedback obtained. Two training workshops have been held (at Dimapur in October 2005).</p> |
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## B. Support & related activities:

Development & documentation carried out of bamboo based orthotic and prosthetic applications to provide low cost solutions to address individual disabilities (Viklang Kendra, Allahabad). Documentation complete.

Establishment of stick & sliver unit taken up at Bairabi, district Kolasib, Mizoram.

Mechanised bamboo furniture unit by URAVU at Wynad, Kerala being established.

Mat making unit being established at Namsai, Arunachal Pradesh (Suta).

Establishment of mechanised furniture making unit, VEDHA, Nagpur. In first phase, craftspersons trained in the use of machinery, tools and jigs for the manufacture of furniture, with assistance provided by DST. Now in second phase, NMBA has supported the induction of processing machinery and finishing equipment, enabling the establishment of demonstrative and potentially replicable enterprise in the form of a production unit to manufacture bamboo products and furniture on a commercial scale. A range of products has emerged, and are being marketed successfully, in Nagpur and in metro markets.

## 9.6 Processing machinery & technology

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## 9.7 Propagation & cultivation

### A. Targeted activities:

22. Demonstrate packages of practices for commercial cultivation of bamboo

## B. Support & related activities:

Work on prototyping and development of bamboo slat dryers has been taken up. A single conveyor module of continuous bamboo slate dryer has been designed, developed and tested in Bangalore in February 2005; results have been encouraging. Moisture for test samples, within 24 hours cycle, has been brought down to 8% from initial moisture of 55%. No problem of warping has been noticed. Testing with bundles of slats also carried out and a few slats in the middle of bundles have moisture content of 14-15%. Subsequent trial by altering the orientation of slats in bundles to simulate 3 stage conveyor and its movement also carried out. A batch of full capacity of 25,000 slats tested on 18th February and dryer has performed satisfactorily. Dryer has been dismantled subsequently and transported / erected at Emmbee Forest Products, Siliguri, to carry out regular operations to establish the operating parameters over an extended period. Satisfactory performance over an extended period would lead to erection of all the three conveyor modules. ERG has submitted test report of trials carried out in Bangalore. The single stage dryer has been installed at Emmbee and is in operation. A report will be submitted to NMBA on the user trials by July end. Based on the results, the three conveyor module will be fabricated.

Secondary processing equipment developed with machinery manufacturers in Ludhiana – undergoing testing and validation.

Packages of practices being demonstrated at Farukhabad, with Dr. Zakir Husain Memorial Trust. Plantation reported to have been damaged through arson.

Packages of practices being demonstrated at Korba and Sehore (TERI) using fly ash & mycorrhizal amendments.

Plantation of *Dendrocalamus asper* being established at Tripura for edible shoot production. Site preparation activities completed, and initial batch of plant material dispatched.

	Entrepreneur based cultivation taken up, in partnership with the Jharkhand Forest Development Corporation (JFDC).
23. Carry out at least 3 demonstrations in major application segments (timber, shoot & timber-cum-shoot), and at least 2 demos in each minor application segment (erosion control, soil stabilisation and rejuvenation, wind breaks) in different agro-climatic zones.	Erosion control activity being carried out at Majuli island (Brahmaputra river) by planting bamboo and using bamboo based engineering material for erosion control. Project progress slower than anticipated – coordination and plant material problems, efforts on to ensure that civil works completed before onset of monsoon. RFRI Jorhat requested to expedite work.  Study on existing windbreaks taken up with RFRI for testing windbreak their efficacy and obtaining information based on computer simulation for windbreak design.
24. Carry out locational trials of TC material, in compact blocks (at least 500 hectares in first phase & 1000 hectares in second phase) in different States.	High quality TC plant ( <i>Bambusa balcooa</i> , <i>Bambusa nutans</i> ) material being hardened at facility at HPC Nagaon. A total of 3 lakhs plants will be transferred.
<p><b>B. Support &amp; related activities:</b></p> <p>Development of maturity marking systems for intensive cultivation of bamboo – colour band system worked out in conjunction with Government of Tripura, reviewed by sectoral specialists, and since disseminated.</p> <p>Multi-locational trials being carried out for standardising package of practices, nutrient requirement, irrigation requirement, organic &amp; inorganic nutrients and intercropping and observing the suitability of species at various locations are being carried out at national level. 8 parameters will be worked on – species trials, micro &amp; macro propagation, nutrient management, organic/ inorganic farming, water management, cropping systems, clump management and spacing. 9 organisations selected for carrying out trials with GB Pant University as the coordinating/ nodal Centre. The institutions are: KFRI Peechi, IWST Bangalore, GBPUAT Pantnagar, RFRI Jorhat, BCKVV West Bengal, IFGTB Coimbatore, IHBT Palampur, AFRI Jodhpur, AAI Allahabad.</p>	<p>A project to take up standardisation of vegetative propagation and planting methods for <i>Phyllostachys pubescens</i> (Chinese Moso) bamboo in Arunachal Pradesh has not been successful, with a propagation success ratio of only around 20%.</p> <p>An attempt at micro-propagation of <i>Phyllostachys pubescens</i> is being carried out at Growmore Biotech, Hosur, with plant material from Yachuli, Arunachal Pradesh. The rhizomes received have remained dormant as yet; although new roots have formed, there are no new shoots, further observations will be taken during the monsoons. Seedlings were not successful, since they were received in a dried condition. Other alternatives are also being tried - <i>Phyllostachys pubescens</i> from FRHLT Bangalore (new shoots obtained) , and a limited quantity of seeds transferred from Pune (Germination successful). .</p> <p>IHBT Palampur is establishing TC protocols for monopodial <i>Phyllostachys pubescens</i>, based on the seed route (delivery by February 2006), covering procurement of 3 Kg seed from China in January 2005 (delayed to March 2005), inducing</p>



seed germination, maintenance of seedlings in IHBT nursery, & providing 60,000 seedlings by February 2006 to NMBA. 60,000 plants are at different stages of preparation. Plantation activities have been carried out on 11 hectares of land, at Shahpur Forest (5 hectares, 2,000 plants), Natrun Forest (3 hectares, 1,200 plants), Kataula (1.25 hectares, 500 plants) and Palampur Forest (1.75 hectares, 700 plants).

Development and validation of 'flute' technology' for vegetative propagation of select bamboo species carried out. The College of Forestry, Allahabad Agricultural Institute is establishing a bamboo nursery for mass multiplication and conservation of *Bambusa balcooa*, *Bambusa nutans*, for assemblage and mass multiplication of superior stocks and their conservation. Flute technology will be used to prepare 3 lakh plants in the first year. Field preparation activities (cleaning, leveling, ploughing) completed, selection of mother material (2-3 year old hollow bamboos) carried out, and preparation of plant material has commenced. Fencing of nursery area (cement pillars, barbed wire) completed. Nursery beds prepared and treated. Irrigation facilities provided. 1 day training programme of farmers held. 35,000 seedlings have been prepared till August 2005. Severe termite infestation, along with high summer temperatures have contributed to mortality (10%).

Commercial production of TC plants of a) *Bambusa balcooa*, b) *Bambusa nutans*, c) *Dendrocalamus asper* & d) *Dendrocalamus hamiltonii* established at units at Chandigarh and Hosur. 3 lakh TC plants are being readied for dispatch to the North East. Export of 50,000 TC plants of *Bambusa balcooa* carried out from Growmore Biotech, Hosur in November 2004.

Training of personnel from States in vegetative propagation by flute technology carried out at Allahabad in first week of April 2005 by AAI, b) at Garh Mukteshwar on vegetative propagation of *Dendrocalamus asper* in last week of April 2005.

Study and demonstrative plantation of *Guadua angustifolia* being carried out by IWST Bangalore for assessing growth performance and standardisation of propagation and cultivation practices.

Technology demonstration for enhancing productivity of bamboo plantations through improved silvicultural practices in Rajasthan being carried out with the Forest Department.

Assessment team formed for identification and assessment of TC units for plant material requirements of next planting season.

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## 9.8 Support & linkages

### A. Targeted activities:

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25. Develop 3 bambusetums in different agro-climatic zones for holding of elite germ plasm based on morphological parameters specified by the Mission

Site work, coordinated by TERI has been approved at Hyderabad (Government of Andhra Pradesh), Pantnagar (GB Pant University) and Guwahati (Government of Assam), for establishing bambusetums for identification and conservation of elite plant material. Site work and sourcing has commenced at GB Pant University.

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26. Develop one repository of in-vitro holding

Discussions underway with DBT and TERI; DBT has committed support for the project.

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27. Based on satellite imagery & ground truthing, establish an objective basis for assessment of bamboo resources in at least 7 States.

Assessment & quantification of the bamboo resources of the North East based on remote sensing taken up with the Survey of India. Little progress achieved. An alternative approach and project being prepared with NRSA.

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28. Prepare product standards for BIS for at least 6 major product groups.

Draft standards for BMCS and bamboo flooring tiles prepared and furnished to BIS; BMCS standard approved by BIS and adopted. BMCS specifications issued vide IS 15476-2004, IS code for bamboo flooring awaited.

Based on trial production (at commercial unit) of bamboo based activated carbon, & work carried out at IIT Bombay, & testing of activated carbon (tested to be Type III –pharmaceutical grade), BIS requested for inclusion of bamboo also as raw material for activated carbon.

Draft standards for processed bamboo shoot prepared and furnished to the BIS.

Draft Indian Standard for testing bamboo in round and split form, prepared (KFRI), and submitted to BIS.

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#### B. Support & related activities:

Data base prepared in form of an annotated bibliography of bamboo literature; published in CD form and disseminated – over 3,000 entries; also placed on website.

Repetitive testing of bamboos and bamboo products at laboratories being carried out on a continuing basis – MoU signed with CIPET for testing at any of the 13 CIPET labs. Bamboo species, procured from bambusetum of SFRI, Itanagar were tested by IIT Bombay. Recording/testing of physical characteristics of bamboo - usable length, diameter, wall thickness, moisture content etc. and age of culms recorded by SFRI, subsequently IIT Bombay (Aerospace Engineering) study was carried out in three levels – round bamboo, slivers/slats & bamboo composites. The processing of bamboo was done at Emmbee. Testing of physical properties and composition done by IIT-Bombay. Based on this testing,

recommendation evolved for focus on 15 commercially significant species - *Bambusa bambos*, *Bambusa balcooa*, *Bambusa nutans*, *Bambusa polymorpha*, *Bambusa tulda*, *Dendrocalamus asper*, *Dendrocalamus brandisii*, *Dendrocalamus giganteus*, *Dendrocalamus hamiltonii*, *Dendrocalamus strictus*, *Melaconna bambusoides*, *Ochlandra travancorica*, *Oxytenanthera stocksii*, *Phyllostachys bambusoides* and *Thyrsostachys oliveri*.

Field identification keys developed for commercially significant bamboo species and published as part of a Field Guide.

Establishment of clump & productivity data for select bamboo species taken up with KFRI Peechi & SFRI Itanagar, data obtained for commercially significant species. Documentation of plantation practices and experience with *Dendrocalamus asper* being carried out; vermi-composting

commercial model developed, based on leaf litter on managed plantations.

Survey & assessment of availability of plant material, tissue culture facilities and commercial and commercialisable protocols being carried out, through an expert committee constituted for the purpose.

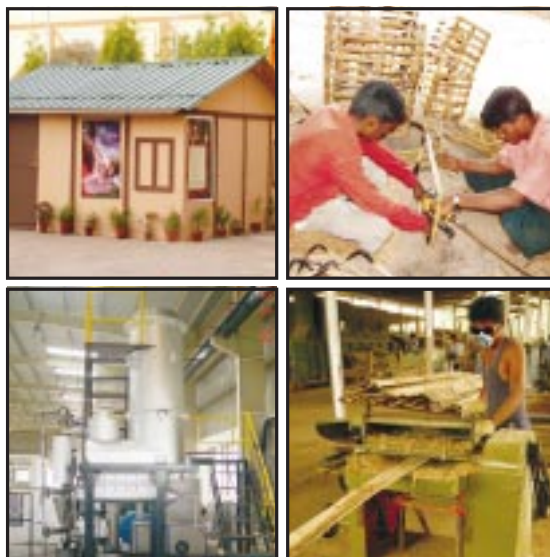
Title	Type	Released
The Book of Bamboo	Field Guide (II edition)	Second edition, June 2005
Maturity Marking	Info-sheet	September 2005
Bamboo charcoal	Info-sheet	September 2005
Thorny Perimeter Fencing	Info-sheet	September 2005

### 1. Offtake: (as on 28 February 2006)

Publication	Stock	Offtake	Balance
Bibliography – CD	500	486	14
FG-I: Field Guide ( <i>out of stock</i> )	1,000	1,000	0
FG-II: Field Guide	1,000	516	484
MA-I Flooring	1,000	605	395
MA-II Furniture	1,000	652	348
TM – 01 Building	1,000	997	3
TM – 02 Shoots (II Edition)	1,000	276	724
TM – 02 Shoots ( <i>out of stock</i> )	1,000	1,000	0
TM - 03 Propagation	1,250	890	360
TM - 03 A - Propagation (Assamese)	1,000	699	301
TM - 03 H - Propagation (Hindi)	1,000	255	745
TM - 03 M - Propagation (Malayalam)	1,000	378	622
TM – 04 Cultivation	1,500	884	616
TM - 04 A Cultivation (Assamese)	1,000	699	301
TM - 04 H - Cultivation (Hindi)	1,000	254	746
TM - 04 M - Cultivation (Malayalam)	1,000	379	621
TM - 05 Culm Container Craft	1,000	705	295
Training Film - 2004 ( <i>out of stock</i> )	125	125	0
NID: Bamboo craft	20	7	13
NID: Bamboo initiatives	20	14	6
NID: Craft (NE) – hard	20	9	11
NID: Craft (NE) - paper	20	12	8
Venu Bharati	215	154	61
<b>Total</b>	<b>17,670</b>	<b>10,996</b>	<b>6,674</b>

## 2. Publications in the pipeline( September – December 2005)

1. Propagation – Hindi
2. Shoot processing – second edition
3. Cultivation – Hindi
4. Craft – culm container craft
5. Propagation – Telegu
6. Cultivation – Telegu
7. Propagation – Malayalam
8. Cultivation – Malayalam
9. Micro-propagation
10. Preservation & Treatment
11. Building – Wardha
12. Building – NE
13. Documentation – prosthetic applications
14. Building – TRADA – Hindi
15. Propagation – Kannada
16. Cultivation – Kannada
17. Propagation – Assamese
18. Cultivation – Assamese
19. Info-sheets/ profiles (shelter belts, gasification, drum charring, prefab structures, stick & sliver making, natural dyes.



Bamboo based value added products & applications

### 10.1 Implementation of Official Language Policy

Official Language Implementation Committee (OLIC) has been constituted in TIFAC to review the position of Implementation of Official Language Policy, O.L. Act, O.L. Rules and instructions issued by Deptt. of Official Language.

The 2<sup>nd</sup> Sub Committee of Committee of Parliament on Official Language under the Chairmanship of Prof. Ram Deo Bhandari, M.P.(Rajya Sabha) reviewed the status of implementation of Official Language Policy on 21 January'06 . The suggestions/recommendations made by the Committee of Parliament on Official Languages are being implemented as under:

- **Training in Hindi:** Eleven Stenographers/LDCs were nominated for training in Hindi Typewriting through correspondence course of Central Hindi Training Institute of DOL in February 2006.
- **Working knowledge of Hindi :** Since more than 80% staff of TIFAC possess working knowledge of Hindi,, a proposal has been sent to DST to notify TIFAC in Official Gazette as per Rule 10 (4) of O.L. rules, 1976.
- **Creation of Hindi posts:** A proposal has been sent to DST for creation of one post of Hindi Officer and One post of Hindi Typist in TIFAC for implementation of Official Language policy.
- **Translation of Codes, manuals etc.:** The Translation work for translation of following Codes, manuals, rules etc. has been completed and being published:

- Memorandum of Association and Rules.
- Byes-Laws
- TIFAC Staff Rules
- Gratuity Rules
- Purchase Procedure
- TIFAC Contributory Provident Fund Rules

### 10.2 International Cooperation

#### (i) S&T Cooperation with ASEAN

On behalf of DST, TIFAC has been requested to take the lead role in the area of "Infrastructure and resources development". ED-TIFAC is the Co-chairman of the Sub- Committee of Infrastructure and Resources Development (SCIRD) on behalf on Indian side. As a part of the recommendations of the workshop on "Management of Technology Innovation" held in New Delhi on January,2005, Project proposals for ASEAN-India Internship program on Technology Management and Documentation of Best practices in Technology Management in ASEAN and India are in the process of finalization.

#### (ii) Joint Assessment Studies with the Samuel Neaman Institute, Israel

Under the India Israel Innovation Program (3IP), it is proposed to take up joint studies on mutually identified areas. Initially identified areas are IPR issues in joint/bi-national projects, innovation finance and Comparative studies of National S&T systems.

#### (iii) India-International Institute for Applied Systems Analysis (IIASA) Programme

In principle approval was accorded for TIFAC to be the National Member Organisation (N.M.O.) of IIASA. Follow up actions taken for financial approval.

### 10.3 Workshops/Seminars

(i) Workshop on Technology Priorities for Electric Vehicles was organized on 22nd July 2005 at TIFAC. Experts from automobile sector are participated and shared their valuable experience. Objectives of the workshop was to shortlist the priorities for the technology development projects for Electric Vehicles; Show case the current industry effort and accelerate the growth of electric vehicles and also deliberate on a roadmap for suitable pilot project to assess technology and economics of electric vehicles. During the workshop experts from Electric Vehicles field were invited to make presentations on the following identified areas of interest.

- Drive systems
- Battery Technology
- Materials and body structures for Electric Vehicles
- Electronic control systems

(ii) STAP Technical Workshop on Liquid Biofuels: Technical Workshop of the Scientific and Technical Advisory Panel (STAP) of the Global Environment Facility (GEF) on "Liquid Biofuels" was co-hosted by TIFAC. The workshop was convened during 29th August to 01st September 2005 at New Delhi. The overall objective of the workshop was to provide GEF with a state of the art of the potential of biofuels as well a framework for analysis of biofuel projects in terms of their GHG emission reduction potential, environmental

and cross-sectoral impacts and benefits on biodiversity, ecosystems, soil and water.

Experts from developing and developed countries with expertise in Life Cycle Analysis of biofuels, transport, economics of biofuels, development, biodiversity, ecosystems and soils and water are participated.

(iii) The workshop was a response to the GEF's request for STAP's advice on liquid biofuels, in view of the renewed and growing interest in biofuels as a renewable energy source to substitute for petroleum-derived products in the transport sector and distributed power generation. Because of the potential role of biofuels in reducing greenhouse gas (GHG) emissions, the GEF has requested STAP's guidance on liquid biofuels and specifically on the greenhouse gas (GHG) emission reduction potential and other environmental benefits of biofuels, as well as the evaluation of their potential impact on biodiversity, land degradation, water and food production and job creation. The workshop focused on the stationery as well as mobile applications and production and use of liquid biofuels for sustainable development.

### 10.4 Coordination with Ministry of Steel

On behalf of Sectetary-DST, TIFAC is a member of the Empowered Committee as well as Evaluation Group of Ministry of Steel. TIFAC is involved in regular evaluation and monitoring of projects with Ministry of Steel. During the years 2005-06, 8-technology development projects were approved by the Secretary, Ministry of Steel as per the recommendation of the above-mentioned committee.

# Annexure - 1

## Projects Completed Earlier

### 1. Sugar Technology Mission (STM)

S.No.	Factory	Year	Status
1	Vighnagar SSK Ltd., Junnar, Maharashtra	1995-96	Project completed.
2	Ajinkyatara SSK Ltd.,Shahunagar-Shendre, Maharashtra	1995-96	Project completed.
3	DSM Sugar, RozagaonDistt.Barabanki, U.P.	1996-97	Project completed.
4	Motilal Padampat Udyog Ltd., Majhauria, Bihar	1995-96	Project completed.
5	Riga Sugar Co. Ltd., Riga, Bihar	1997-98	Project completed.
6	Vishnu Sugar Mills Ltd., Gopalganj, Bihar	1997-98	Project completed.
7	Upper Doab Sugar MillsShamli, U.P.	1998-99	Project completed.
8	Rai Bahadur Narain Singh Sugar Mills, Lahsar, U.P	1998-99	Project completed.
9	Sakthi Sugars Ltd.,Sakthi Nagar, T.N.	1997-98	Project completed.
10	Godavari Sugar Mills, Sameerwardi, Karnataka	1998-99	Project completed.
11	Pratappur Sugar Mills, Pratappur, U.P.	1998-99	Project completed.
12	Mawana Sugar Works, Mawana, U.P.	1998-99	Project completed.
13	Varalakshmi Sugar and Chemicals Ltd., Srikakulam, AP	2000-01	Project completed.
14	L.H. Sugar Factories Ltd.Pilibhit, U.P.	1997-98	Project completed.
15	Sanjivani Takli SSK Ltd., Maharashtra	2000-01	Project completed.
16	Simbhaoli Sugar Mills Ltd.Simbhaoli, U.P.	2001-02	Project completed
17	E.I.D. Parry India Ltd., Pugalur, Tamil Nadu	1999-00	Project completed.
18	Shri Valsad Sahakari Khand Udyog Ltd. Valsad, Gujarat	1995-96	Project completed.
19	Triveni Engineering Works Ltd., Unit - Deoband, U.P.	2002-03	Project completed .

## 2. Advanced Composites Programme (ACP)

No. Projects	Partners
1. Carbon-Carbon Brake-Disc for Aircraft	DRDL, Hyderabad & Graphite India Ltd., Bangalore
2. NDE Scanner for Composites	Vivace Sonics Pvt. Ltd., Hyderabad. & DRDL, Hyderabad
3. Thermoset Prepregs	NAL & ADA Bangalore & IPCL, Vadodara
4. Manpower Development	CIPET, Chennai
5. RV-TIFAC Composite Design Centre, Bangalore	RV College of Engineering, Bangalore
6. FRP Sleepers for Railway Girder Bridges	Research & Development Establishment (Engrs.), Pune & RDSO, Lucknow
7. Composite Technology Centre (COMPTEC)	IIT-Madras, Chennai
8. FRP Gear-Cases for Railway Locomotives .	Permal Wallace Ltd. & RRL-Bhopal
9. Vacuum Forming Press	Tecnico Engineering Pvt. Ltd. & HAL, Bangalore
10. Jute-Coir Composite Boards	Natura Fibretech Ltd., Bangalore
11. FRP Pultruded Profiles	Sucro Filter Pvt. Ltd. & NCL, Pune
12. Carbon Fibre Composites for Orthopaedic Appliances	S H Pitkar Orthotools Pvt. Ltd., Pune
13. Energy Efficient Axial Flow FRP Fans	Parag Fans & Cooling Systems Ltd., Dewas & IIT-Bombay
14. Jute-Glass Composites for Railway Coaches	CGCRI, Calcutta & Fabtech Industries, Calcutta
15. Composite Artificial Limbs	Mohana Orthotics & Prosthetic Centre & MIT, Chennai
16. FRP Armoured Optical Fibre Cables	Indore Composites Pvt. Ltd., Pithampur
17. Composite CNG Cylinders for Automobiles	Strategic Engineering Pvt. Ltd. & MIT, Chennai
18. Double-Wall FRP Vessel with Early Warning System for Leakage	Chemical Process Equipments Ltd., Mumbai
19. FRP Modular Toilet Units for Railway Passenger Coaches	Hindustan Fibreglass Works, Vadodara & IIT-Bombay, Mumbai
20. FRP Main Door for Passenger Coaches & Sliding Door for EMU Coaches	Urbane Industries, Chennai & IIT-Bombay, Mumbai
21. Jute Composite Components for Footwear	APL Polyfab Pvt. Ltd., Kolkata & IJIRA, Kolkata
22. Initiatives for Gujarat Earthquake	Advanced Composites Programme
23. Evaluation of Bamboo Processing Machinery	Engineering Resources Group, Bangalore & NEDFi, Guwahati
24. Sky Bus Coach for Konkan Railway	Kineco Pvt. Ltd., Panaji & IIT-Bombay



# Annexure - 2

## List of Papers/Publications

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### PAPERS PRESENTED / PUBLISHED

Details of papers presented, authors name and conference/seminar where the papers have been presented during 2005-06 are as given below:

1. Paper entitled **"Mobile Hospital and Research Centre in Uttaranchal (Kumaon): Health Care for all"** presented at Medical Development Congress organized by ICMR at New Delhi during 23<sup>rd</sup> to 24<sup>th</sup> January, 2006 by Ms. Achala Khanna.
2. Paper entitled **"Technology Vision 2020 Mission Mode Projects on Agriculture – A Snap Shot"** presented in the 3<sup>rd</sup> National Extension Education Congress at NDRI, Karnal during 27<sup>th</sup> to 29<sup>th</sup> April, 2005 by Dr. D. N. Singh, Dr. Gautam Goswami, Ms. Kiran A Zacharia & Dr. T. Chakradhar.
3. Paper entitled **"Technology Demonstration for Higher Income Generation for Farmers of Sikkim – A Case Study"** presented in the National Conference on Watershed Management for Sustainable Production, Livelihood and Environmental Security at G B Pant University of Agriculture and Technology, Panthnagar during 19<sup>th</sup> to 21<sup>st</sup> May, 2005 by Dr. D. N. Singh & Dr. Gautam Goswami.
4. Paper entitled **"Technology Vision 2020 Mission Mode Project on Agriculture at Pinder Valley, Uttaranchal – A Case Study"** presented in the National Conference on Watershed Management for Sustainable Production, Livelihood and Environmental Security at G B Pant University of Agriculture and Technology, Panthnagar during 19<sup>th</sup> to 21<sup>st</sup> May, 2005 by Dr. D. N. Singh & Dr. T. Chakradhar.
5. Delivered key note speech on **"Technology Dissemination Through Farmers – A Case Study"** in the GCRA Third International Conference on "ICT and Sustainable Development – Strategies and Research Trends" held during 12<sup>th</sup> to 14<sup>th</sup> December, 2005 at South China Normal University, Guandong Province, China by Dr. D. N. Singh and Dr. Gautam Goswami .
6. Paper entitled **"Fly ash: Building material for sustainable development"** by Dr. Vimal Kumar, Adviser (Fly Ash) and Mr. Mukesh Mathur, Sr. Scientific Officer, has been published in the magazine " Construction World" during May 2005.
7. Paper on **"Fly ash management in India-A perspective"** by Dr. Vimal Kumar, Adviser (Fly Ash) and Mr. Mukesh Mathur, Sr. Scientific Officer has been published in Magazine "Horizon" during May 2005.
8. Paper on **"Use of Fly Ash in Roads & Embankments: Cost Economics, Environmental and Legal Issues"** has been published in the proceedings of "National Seminar – cum- Business Meet on use of Fly Ash in Roads & Embankments" held on 5<sup>th</sup> June 2005 at Allahabad.

9. Paper on **"Fly Ash in Roads & Embankments – An overview"** by Dr. Vimal Kumar & Shri Mukesh Mathur has been published in the proceedings of **"National Seminar – cum- Business Meet on use of Fly Ash in Roads & Embankments"** held on 5<sup>th</sup> June 2005 at Allahabad.
10. Paper on **"Fly Ash Management – An Integrated Approach"** by Dr. Vimal Kumar and Sh. Mukesh Mathur has been published in the proceeding of **'Power Plant Summit 2005'** organised by CII during 27<sup>th</sup> –28<sup>th</sup> July 2005 at Hyderabad.
11. Paper on **"Fly Ash as a Geotechnical Material"** by Dr Vimal Kumar and Shri. Mukesh Mathur was published in the proceedings of **Indian Geotechnical Conference: IGC – 2005** Organized by Indian Geotechnical Society Ahmedabad Chapter Hosted by Nirma University of Science & Technology held during December 17<sup>th</sup> - 19<sup>th</sup> 2005.
12. Paper on **"Handling & Transportation of Fly Ash: An Overview"** has been published in the proceeding of **"National Seminar on Handling & Transportation of Fly Ash"** held during 24<sup>th</sup> – 25<sup>th</sup> Oct' 2005 at Kolkatta.
13. Paper on **"Segregated Handling of Dry Fly Ash at Thermal Power Station"** has been published in the proceeding of **"National Seminar on Handling & Transportation of Fly Ash"** held during 24<sup>th</sup> – 25<sup>th</sup> Oct' 2005 at Kolkatta.
14. Papers on **"Use of Fly ash in Mining Sector An Overview"** has been published in the proceeding of **"National Seminar on Use of Fly Ash in Mining Sector** held on 11<sup>th</sup> November, 2005 at CMRI, Dhanbad
15. Paper on **"Logistics and Issues of Availability & Transportation of Fly Ash for Mine Stowing"** has been published in the proceeding of **"National Seminar on Use of Fly Ash in Mining Sector** held on 11<sup>th</sup> November, 2005 at CMRI, Dhanbad.
16. Paper on **" A case study: Manifold Increase in Fly Ash Utilisation by Vimal Kumar, Mukesh Mathur & S S Sinha,** has been published in the proceeding of **"Fly Ash India 2005"**, International Congress on Fly Ash Utilisation, held during 4<sup>th</sup> – 7<sup>th</sup> December 2005 at New Delhi.
17. Paper on **"Ash Availability & Utilisation: An Interface"** by Vimal Kumar, Mukesh Mathur & Sagar Dhatriak, has been published in the proceeding of **"Fly Ash India 2005"**, International Congress on Fly Ash Utilisation, held during 4<sup>th</sup> – 7<sup>th</sup> December 2005 at New Delhi.
18. Paper on **"Suggestive Policy Imperatives for Sustainable Use of Fly Ash"** by Vimal Kumar, Mukesh Mathur & Gulab Singh, has been published in the proceeding of **"Fly Ash India 2005"**, International Congress on Fly Ash Utilisation, held during 4<sup>th</sup> – 7<sup>th</sup> December 2005 at New Delhi.
19. Paper on **"Fly Ash: An Environment Savior"** by Vimal Kumar, Mukesh Mathur, Sagar Dhatriak & S S Sinha has been published in the proceeding of **"Fly Ash India 2005"**, International Congress on Fly Ash Utilisation, held during 4<sup>th</sup> – 7<sup>th</sup> December 2005 at New Delhi.
20. Paper on **"Durability And Radioactivity of Fly Ash Bricks: A Safe Material."** By Vimal Kumar, Mukesh Mathur & Gulab Singh, has been published in the proceeding of **"Fly Ash India 2005"**, International Congress on Fly Ash Utilisation, held during 4<sup>th</sup> – 7<sup>th</sup> December 2005 at New Delhi.

21. Paper on "Fly Ash: A Material for Another Green Revolution", has been published in the proceeding of "Fly Ash India 2005", International Congress on Fly Ash Utilisation, held during 4<sup>th</sup> – 7<sup>th</sup> December 2005 at New Delhi.
22. Paper on " Fly ash – A safe resource material" by Dr. Vimal Kumar & Dr. Gulab Singh has been published in proceeding of 3rd annual workshop on "Fly Ash and Its Application" and "8<sup>th</sup> Annual Convention of ISTE-Orissa Section" held on 28<sup>th</sup> January 2006 organized by Jagannath Institute for Technology and management at Paralakhemundi, Orissa.
23. *Composite Materials in Rebuilding & Rehabilitation – An Indian Experience* by S Biswas, G Srikanth & S Baksi, published in the *i-Structure* (April – May 2005) brought out by Jasubhai Media Pvt. Ltd., Mumbai
23. *Composite – An Innovative Building Material* by S Baksi, G Srikanth & S Biswas published in 'i - Structure' (May – June 2005) by Jasubhai Media Pvt. Ltd., Mumbai
24. *Composites – The Wonder Material* by S Baksi, G Srikanth & S Biswas published in the Modern Plastics & Polymers, June 2005
25. *Advanced Composites Programme : from concept to commercialization* by S Baksi, G Srikanth & S Biswas published in the Reinforced Plastics, July – August 2005, brought out by M/s. Elsevier Advanced Technology, Oxford, UK
26. *Composites – The Wonder Material for Chemical Industry* by S Baksi, G Srikanth & S Biswas published in the proceedings of the XXI National Convention of Chemical Engineers, Udaipur, September 02-04, 2005
27. *Composites help Indian Tsunami Victims* published in the *Reinforced Plastics* by G Srikanth, S Biswas & S Baksi brought out by M/s. Elsevier Advanced Technology, Oxford, UK, November 2005
28. *Composites in Transportation-Indian Scenario* by S Baksi, G Srikanth & S Biswas published in the proceedings of third International Conference on Reinforced Plastics (ICERP)-2006, February 23-25, 2006 organized by FRP Institute, Chennai

# Annexure - 3

## Foreign tours and participation in International Exhibitions/Conferences

Mrs. A. Jancy Participated in the 11th ASEAN Summit: East Asia Business exhibition in Kuala Lumpur, Malaysia during December 9-14th, 2005

Sh. Ajay Kumar, Sr. Technology Specialist, National Mission on Bamboo Applications, TIFAC participated in the International Conference on Tropical Plywood and visited bamboo based processing and finishing units machinery/ product design facilities in China during 24th September, 2005 to 2nd October, 2005.

Prof. Anand Patwardhan ED, TIFAC attended the Fifth Knowledge Economy Forum (KEFV) organized by "The World Bank and Government of Czech Republic during 28th to 30th March, 2006 in Prague.

Sh. Deepak Bhatnagar, Advisor, TIFAC presented a paper on "Future of Titanium Alloy Castings" at the Technical Forum of World Foundry Organization (WFO) held at St. Louis, USA during 16th to 19th April, 2005.

Dr. Gautam Goswami Scientist E, TIFAC delivered key note address on 'Technology Dissemination Through Farmers - A case study' at the GCRA International Conference "ICT and Sustainable Development Strategies and Research Trends" during 12-14th December'05 at South China Normal University, Guangdong Province, China.

Shri J.J. Bhagat, Mission Director (STM) along with two Experts, visited Fiji to participate in the meeting at Fiji Sugar Corporation regarding signing of the

loan agreement with Exim Bank and assisting Fiji Sugar Corporation in placement of orders for supply of plant & equipment including finalisation of Agreement with the vendors.

Shri S Biswas, Adviser (ACP) presented a paper on 'The Use of Composites in a New Urban Transit System' at the International Conference at Reinforced Plastics Asia (RP Asia)-2005, Bangkok, August 25-26, 2005. Indian Pavilion at the concurrent exhibition of RP Asia-2005, co-sponsored by TIFAC, was set up by the FRP Institute with 7-8 entrepreneurs from India.

Dr. Vimal Kumar, Adviser (Fly Ash), TIFAC, DST was on deputation to United Kingdom and The Netherlands from 3rd July 2005 to 16th July 2005 to participate in 6th International Congress on "Global Construction: Ultimate Concrete Opportunities", 5th -7th July, 2005 at University of Dundee, Scotland, UK and for meetings with industries, industry associations and Govt. bodies regarding the International Congress on Fly Ash scheduled during 4th -7th, December 2005 at New Delhi.

A Ten - Member Scientific delegation from India visited Israel from May 29, 2005 - June 3, 2005 for attending Indo-Israeli workshop on "Promoting and Facilitating Innovation driven new ventures" under the leadership of Prof. Anand Patwardhan, ED, TIFAC, Sh. Deepak Bhatnagar, Adviser, TIFAC were also a member of the Indian Delegation on behalf of TIFAC.



**Auditor's Report Together with  
Audited Statement of Accounts**

## Auditor's Report

The Members,  
Governing Body  
Technology Information, Forecasting &  
Assessment Council,  
New Delhi - 110 016

We have audited the attached Balance Sheet of TECHNOLOGY INFORMATION, FORECASTING AND ASSESSMENT COUNCIL (TIFAC), NEW DELHI as on 31st March 2006 and also the attached Income & Expenditure Accounts for the year ended on that date. These financial statements are the responsibility of the management of the TIFAC. 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 the management, as well as evaluating the overall presentations of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

Subject to our Audit objections as per Annexure AR-1, comments given in the following Notes on accounts as per schedule -48 & 49, Note No B-1 -> Provision of Depreciation during the year, Note No.B-2 -> Non - Accounting of Stock of Publication of TIFAC, Note No. B-4 -> Non-receipt of utilization statements in respect of grant utilized from the implementing agency in some cases, we report that :-

- 1) We have obtained all the information and explanation which to the best of our knowledge and belief were necessary for the purposes of our Audit.
- 2) In our opinion proper books of account as required by law have been kept by TIFAC.
- 3) The Balance sheet and Income and Expenditure Accounts dealt with by this report are in agreement with the books of account.
- 4) In our opinion and the best of our information and according to the explanations given to us, the said accounts read with the schedules and notes thereto given the information required by Society Registration Act, in the manner so required and given a true and fair view :-
  - a) In case of Balance Sheet , of the state of affair of the TIFAC as at 31st March 2006.

For Rakesh Raj and Associates  
Chartered Accountants

Date : 13th November, 2006  
Place : New Delhi

Sd-  
Ashwani Taneja  
(Partner)

## Annexure : AR1 - Audit Objections

1. TIFAC has been recognized as a Scientific and Industrial Research Organisation by Department of Scientific and Industrial Research (DSIR) for the period from 30.06.1993 to 31.03.1995 and subsequently from 01.04.1995 to 31.03.2000, 01.04.2000 to 31.03.2003 & 01.04.2003 to 31.03.2006 and TIFAC has been declared "SCIENTIFIC INSTITUTION" by the prescribed authority under Rule 6 of the Income Tax Rules for the purpose of Clause (ii) of Sub-section (I) of Section 35 of the Income Tax Act, 1961 vide Notification No. 951 (F. No. DG/IT(E)/ND-116/35(i)(ii)/93-IT(E) dated 30<sup>th</sup> November 1993. The Income Tax liability for earlier year if any will be provided in the books of account on the basis of actual payment to Income Tax Department. The recognition has expired on 31.03.2003. Application has been made for renewal but renewal has not been received so far after 31.03.2003.
- 2 As per the agreement of various Projects the Financial Assistance given by TIFAC will be refunded in Instalments as per the specified period as mentioned in the agreement but it is analyzed that there are many companies have not repaid their instalments according to the agreements. The details are as under.

Out of which the following amount are overdue as on 31.03.2006. (Rs. In Lacs)

Name of the Project	Overdue upto Six months	Overdue from more than six months upto 3 years	Over due more than 3 Years	Total
Fly Ash Mission	12.000	62.400	20.850	95.250
Advanced Composite	465.880	986.540	90.500	1542.920
Home Grown Technology	196.310	1452.200	1460.080	3108.590
Vision 2020:Agriculture Sector	0.000	0.000	48.330	48.330
Vision 2020 : Upgradation of Textile Machinery	0.000	0.000	764.320	764.320
Vision 2020:OtherTargetted Programme	0.000	0.000	358.610	358.610
	674.190	2501.140	2742.690	5918.020

The above amount does not include any interest which is chargeable at 18% on overdue amount as per terms of the agreement signed by beneficiaries. It is explained to us that as per policy of TIFAC interest on overdue amount is accounted for on receipt basis only.



3. The assets hypothecated to TIFAC are required to be insured by the beneficiaries as per terms of agreement, but it was observed that infew cases assets are not insured.
4. TDS has not been deducted in few cases, where payments have been made to the Transporters.
5. The following advances are outstanding for the last 2 to 3 years which have not been settled so far.
  - (i) Mr.Deepak Bhatnagar Rs. 9,108/- (This includes Rs.4,852/- relating to Ranchi)
  - (ii) BISR (Haldwani) Rs.76,173/-
6. It is observed that Rs.4,45,94,188/- shown as Capital Fund in Progress at Schedule 11A of the Balance Sheet. The time period of the work contract has already been over as per terms and condition of the agreement. A part of the job has not been completed. This amount should be transferred to Corpus / Capital Fund after completion of the job.
7. It is observed that Rs. 32,59,953/- towards Construction of Reception Office in D.S.T, Technology Bhavan is outstanding since long. Proper action should be taken to recover this amount from DST.
8. Rs.5,97,750/- on account of Earnest Money is held with TIFAC for the last 2 years unsettled.
9. Income Tax Return of the financial year 2004-2005 has been filed on 31st March 2006. IT return for the Financial year 2005-2006 will be filed on or before 30th November 2006.

for RAKESH RAJ & ASSOCIATES  
CHARTERED ACCOUNTANTS

Sd-  
ASHWANI TANEJA

Sd-  
ACCOUNTS OFFICER

Sd-  
REGISTRAR

Sd-  
EXECUTIVE DIRECTOR  
TIFAC

DATE : 13th November 2006  
PLACE: NEW DELHI

## Replies to Audit queries "Annexure AR 1" TIFAC

1. Application for renewal of Income Tax exemption for the period from 01.04.2003 onwards was filed with Income Tax Department, New Delhi on 1st April 2004. No queries or objection has been raised by I.T. Department. However necessary notification granting exemption is yet to be issued by Income Tax Department. The Gazette notification from CBDT is awaited.

2. Wherever non payment of instalments are there the matter is being pursued with concerned beneficiaries for early payment of instalments. In certain cases legal actions have already been initiated.

Extension of time for repayment in few cases was allowed with the approval of competent authority on case to case basis depending upon the special facts and circumstances of the case with proper recommendation not to charge late payment/penal interest.

3. Insurance in respect of assets hypothecated to TIFAC is done by the beneficiary concerned.

4. Initially during the year 2005-2006 TDS from the Transporters have not been deducted on the plea that the taxies were engaged on daily basis based on the requirement for the day to day functioning. However TDS has been deducted from the bills received later on.

5. The outstanding amount will be settled soon.

6. Action for transfer of amount into capital fund will be taken after completion of the Job.

7. DST is being requested to reimburse the amount to TIFAC.

8. The final settlement of Contractors bill is yet to be done. Earnest money will be adjusted at the time of settlement.

9. Action has been noted for filing the return in time.

**Technology Information, Forecasting & Assessment Council**  
**BALANCE SHEET AS ON 31.03.2006**

(Amount-Rs.)

CORPUS/CAPITAL FUND AND LIABILITIES	Schedule	Current Year	Previous Year
CORPUS /CAPITAL FUND	1	836117412.78	845230516.64
RESERVES AND SURPLUS	2	0.00	0.00
EARMARKED/ ENDOWMENT FUNDS	3	0.00	0.00
SECURED LOANS AND BORROWINGS	4	0.00	0.00
UNSECURED LOANS AND BORROWINGS	5	0.00	0.00
DEFERRED CREDIT LIABILITIES	6	0.00	0.00
CURRENT LIABILITIES AND PROVISIONS	7	38708386.00	28027090.06
<b>TOTAL</b>		<b>874825798.78</b>	<b>873257606.70</b>
<b>ASSETS</b>			
FIXED ASSETS (NET)	8	103560155.85	113272114.82
INVESTMENTS - FROM EARMARKED/ENDOWMENT FUNDS	9	0.00	0.00
INVESTMENTS - OTHERS	10	0.00	0.00
CURRENT ASSETS, LOANS, ADVANCES ETC.	11	726671454.93	716803167.88
CAPITAL WORK IN PROGRESS.	11A	44594188.00	43182324.00
MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)			
<b>TOTAL</b>		<b>874825798.78</b>	<b>873257606.70</b>
SIGNIFICANT ACCOUNTING POLICIES	48		
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	49		

As per our report of even date

for RAKESH RAJ & ASSOCIATES  
CHARTERED ACCOUNTANTS

Sd/-  
ASHWANI TANEJA  
(PARTNER)

Sd/-  
ACCOUNTS OFFICER

Sd/-  
REGISTRAR

Sd/-  
EXECUTIVE DIRECTOR  
TIFAC

DATE : 13th November 2006  
PLACE: NEW DELHI

**T.I.F.A.C (REGULAR ACCOUNT)**  
**Income and Expenditure Account for the Year Ended 31.03.2006**  
(Amount-Rs.)

Income	Schedule Annexure	Current Year	Previous Year
Income from Sales/Services	Schedule 12	0.00	0.00
Grants/Subsidies	Schedule 13	135800000.00	154000000.00
Fees/Subscriptions	Schedule 14	52285.00	157000.00
Income from Investments	Schedule 15	0.00	0.00
Income from Royalty, Publication etc.	Schedule 16	706194.00	880807.87
Interest Earned	Schedule 17	16146962.00	12524843.00
Other Income	Schedule 18	655643.00	524149.00
Increase/(Decrease) in stock of Finished goods and Works-in-progress	Schedule 19	0.00	0.00
Refund from Projects	Annexure 5	47214751.00	37434438.00
<b>Total (A)</b>		<b>200575835.00</b>	<b>205521237.87</b>
<b>Expenditure</b>			
Establishment Expenses	Schedule 20	16207434.00	15041254.00
Other Administrative Expenses etc.	Schedule 21	13095777.50	17305446.00
Expenditure on Grant, Subsidies etc.	Schedule 22	69397117.00	90868906.00
Interest	Schedule 23	0.00	0.00
Depreciation (Net Total at the year end)	Schedule 8	12308701.97	13446068.22
<b>Total (B)</b>		<b>111009030.47</b>	<b>136661674.22</b>
Balance being excess of Income over Expenditure (A-B)		89566804.53	68859563.65
Transfer to Special Reserve (Specity each)			
Transfer to/from General Reserve			
Balance Being Surplus (Deficit) Carried to Corpus/Capital Fund		89566804.53	68859563.65
Significant Accounting Policies & Notes on Accounts			
Contingent Liabilities			

As per our report of even date  
for RAKESH RAJ & ASSOCIATES  
CHARTERED ACCOUNTANTS

Sd/-  
ASHWANI TANEJA  
(PARTNER)

Sd/-  
ACCOUNTS OFFICER

Sd/-  
REGISTRAR

Sd/-  
EXECUTIVE DIRECTOR  
TIFAC

DATE : 13th November 2006  
PLACE: NEW DELHI

**T.I.F.A.C**  
**Technology Vision 2020**  
**Income and Expenditure Account for the Year Ended 31.03.2006**

(Amount-Rs.)

Income	Schedule Annexure	Current Year	Previous Year
Grants/Subsidies	Schedule 24	0.00	130000000.00
Interest Earned	Schedule 25	10451433.00	8781390.00
Other Income	Schedule 26	2762.00	297800.00
Refund from Project	Annexure 8	35694743.29	35837735.00
<b>Total (A)</b>		<b>46148938.29</b>	<b>174916925.00</b>
Expenditure			
Establishment /Administrative Expenses	Schedule 27	3065632.00	4131882.00
Project Expenditures	Schedule 28	123455710.00	83671536.00
<b>Total (B)</b>		<b>126521342.00</b>	<b>87803418.00</b>
Balance being excess of Income over Expenditure (A-B)			87113507.00
Balance being excess of Expenditure over Income (A-B)		80372403.71	
Balance being Deficit transferred to Corpus/Capital Fund		(-) 80372403.71	87113507.00

As per our report of even date

for RAKESH RAJ & ASSOCIATES  
 CHARTERED ACCOUNTANTS

Sd/-  
 ASHWANI TANEJA  
 (PARTNER)  
 DATE : 13th November 2006  
 PLACE: NEW DELHI

Sd/-  
 ACCOUNTS OFFICER

Sd/-  
 REGISTRAR

Sd/-  
 EXECUTIVE DIRECTOR  
 TIFAC

**T.I.F.A.C**  
**Patent Facilitating Centre**  
**Income and Expenditure Account for the Year Ended 31.03.2006**

(Amount-Rs.)

Income	Schedule/ Annexure	Current Year	Previous Year
Grants/Subsidies	Schedule 29	15000000.00	10000000.00
Interest Earned	Schedule 30	0.00	0.00
Other Income	Schedule 31	176292.00	250437.00
Refund from Project		0.00	0.00
<b>Total (A)</b>		<b>15176292.00</b>	<b>10250437.00</b>
<b>Expenditure</b>			
Establishment /Administrative Expenses	Schedule 32	4023906.08	6825238.00
Project Expenditures	Schedule 33	4937279.00	6694542.00
<b>Total (B)</b>		<b>8961185.08</b>	<b>13519780.00</b>
<b>Balance being excess of Income over Expenditure (A-B)</b>		<b>6215106.92</b>	
<b>Balance being excess of Expenditure over Income (A-B)</b>			<b>(-) 3269343.00</b>
<b>Balance being Surplus transferred to Corpus/Capital Fund</b>		<b>6215106.92</b>	<b>(-) 3269343.00</b>

As per our report of even date

for RAKESH RAJ & ASSOCIATES  
 CHARTERED ACCOUNTANTS

Sd/-  
 ASHWANI TANEJA  
 (PARTNER)

Sd/-  
 ACCOUNTS OFFICER

Sd/-  
 REGISTRAR

Sd/-  
 EXECUTIVE DIRECTOR  
 TIFAC

DATE : 13th November 2006

PLACE: NEW DELHI

**T.I.F.A.C**  
**National Mission on Bamboo Applications**  
**Income and Expenditure Account for the Year Ended 31.03.2006**

(Amount-Rs.)

Income	Schedule/ Annexure	Current Year	Previous Year
Grants/Subsidies	Schedule 34	NMBA Accounts separated from TIFAC with effect from 01.04.2005 onwards. Please see Page No. 190 to 228	85149896.60
Interest Earned	Schedule 35		0.00
Other Income	Schedule 36		76540.00
Refund from Project			0.00
<b>Total (A)</b>			<b>85226436.60</b>
Expenditure			
Establishment /Administrative Expenses	Schedule 37		6438544.00
Project Expenditures	Schedule 38		43135232.00
<b>Total (B)</b>			<b>49573776.00</b>
Balance being excess of Income over Expenditure (A-B)			<b>35652660.60</b>
Balance being excess of Expenditure over Income (A-B)			
Balance being Deficit transferred to Corpus/Capital Fund			<b>35652660.60</b>
Balance being Deficit transferred to Corpus/Capital Fund			

As per our report of even date

for RAKESH RAJ & ASSOCIATES  
 CHARTERED ACCOUNTANTS

Sd/-  
 ASHWANI TANEJA  
 (PARTNER)

Sd/-  
 ACCOUNTS OFFICER

Sd/-  
 REGISTRAR

Sd/-  
 EXECUTIVE DIRECTOR  
 TIFAC

DATE : 13th November 2006  
 PLACE: NEW DELHI

**T.I.F.A.C**  
**Scholarship for Women Scientists**  
**Income and Expenditure Account for the Year Ended 31.03.2006**

(Amount-Rs.)

Income	Schedule/ Annexure	Current Year	Previous Year
Grants/Subsidies	Schedule 39	5485000.00	0.00
Interest Earned	Schedule 40	0.00	0.00
Other Income	Schedule 41	0.00	0.00
Refund from Project		0.00	0.00
<b>Total (A)</b>		<b>5485000.00</b>	<b>0.00</b>
Expenditure	Schedule 42	2965382.00	2120362.00
<b>Total (B)</b>		<b>2965382.00</b>	<b>2120362.00</b>
Balance being excess of Income over Expenditure (A-B)		2519618.00	
Balance being excess of Expenditure over Income (A-B)			(-) 2120362.00
Balance being Surplus transferred to Corpus/Capital Fund		2519618.00	(-) 2120362.00

As per our report of even date

for RAKESH RAJ & ASSOCIATES  
 CHARTERED ACCOUNTANTS

Sd/-  
 ASHWANI TANEJA  
 (PARTNER)  
 DATE : 13th November 2006  
 PLACE: NEW DELHI

Sd/-  
 ACCOUNTS OFFICER

Sd/-  
 REGISTRAR

Sd/-  
 EXECUTIVE DIRECTOR  
 TIFAC



**T.I.F.A.C**  
**CORE-Group on Automotive Research (CAR)**  
**Income and Expenditure Account for the Year Ended 31.03.2006**

(Amount-Rs.)

Income	Schedule/ Annexure	Current Year	Previous Year
Grants/Subsidies	Schedule 43	30000000.00	55000000.00
Interest Earned	Schedule 44	0.00	0.00
Other Income	Schedule 45	0.00	0.00
Refund from Project		0.00	0.00
<b>Total (A)</b>		<b>30000000.00</b>	<b>55000000.00</b>
<b>Expenditure</b>			
Establishment / Administrative Expenses etc.	Schedule 46	320018.00	0.00
Project Expenditures	Schedule 47	21069551.00	27923.00
<b>Total (B)</b>		<b>21389569.00</b>	<b>27923.00</b>
<b>Balance being excess of Income over Expenditure (A-B)</b>		<b>8610431.00</b>	<b>54972077.00</b>
<b>Balance being excess of Expenditure over Income (A-B)</b>			
<b>Balance being Surplus transferred to Corpus/Capital Fund</b>		<b>8610431.00</b>	<b>54972077.00</b>

As per our report of even date

for RAKESH RAJ & ASSOCIATES  
 CHARTERED ACCOUNTANTS

Sd/-  
 ASHWANI TANEJA  
 (PARTNER)

Sd/-  
 ACCOUNTS OFFICER

Sd/-  
 REGISTRAR

Sd/-  
 EXECUTIVE DIRECTOR  
 TIFAC

DATE : 13th November 2006  
 PLACE: NEW DELHI

**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC)**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

**SCHEDULE 1 - CORPUS/CAPITAL FUND**

(Amount-Rs.)

	TIFAC	Vision 2020	Patent Facilitating Centre	National Mission on Bamboo Applications	Scholarship for Women Scientists	CORE-Group on Automotive Research (CAR)	Total	Previous Year Balance
Opening Balance	368668359.88	387916433.16	471572.40	33902557.20	(700483.00)	54972077.00	845230516.64	602272309.99
Amount Received from NMBA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1750103.40
Excess of Income Over Expenditure	89566804.53	0.00	6215106.92	0.00	2519618.00	8610431.00	106911960.45	246597808.25
Total	458235164.41	387916433.16	6686679.32	33902557.20	1819135.00	63582508.00	952142477.09	850620221.64
Excess of Expenditure over Income	0.00	80372403.71	0.00	0.00	0.00	0.00	80372403.71	5389705.00
	*1750103.40						1750103.40	0.00
Amount Transferred to NMBA	0.00	0.00	0.00	33902557.20	0.00	0.00	33902557.20	0.00
Total	1750103.40	80372403.71	0.00	33902557.20	0.00	0.00	116025064.31	5389705.00
Closing Balance	456485061.01	307544029.45	6686679.32	0.00	1819135.00	63582508.00	836117412.78	845230516.64

\*Excess expenditure over income adjusted from the Grant

SCHEDULE 2 - RESERVE AND SURPLUS :	Current Year		Previous Year	
1. Capital Reserve :				
As per last Account		0.00		0.00
Addition during the year		0.00		0.00
Less : Deductions during the year		0.00		0.00
2. Revaluation Reserves :				
As per last Account		0.00		0.00
Addition during the year		0.00		0.00
Less : Deductions during the year		0.00		0.00
3. Special Reserve :				
As per last Account		0.00		0.00
Addition during the year		0.00		0.00
Less : Deductions during the year		0.00		0.00
4. General Reserve :				
As per last Account		0.00		0.00
Addition during the year		0.00		0.00
Less : Deductions during the year		0.00		0.00
<b>TOTAL</b>		<b>0.00</b>		<b>0.00</b>

**Technology Information, Forecasting & Assessment Council**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount-Rs.)

<b>SCHEDULE 3- EARMARKED/ENDOWMENT FUNDS</b>		
a) Opening Balance of the funds	0.00	0.00
b) Additions to the Funds:		
i) Donations /grants	0.00	0.00
ii) Income from investments made on account of funds	0.00	0.00
iii) Other Additions (Specify)		
<b>TOTAL (a+b)</b>	<b>0.00</b>	<b>0.00</b>
c) Utilization /Expenditure towards objectives of funds		
i) Capital Expenditure	0.00	0.00
Fixed Assets	0.00	0.00
Others	0.00	0.00
ii) Revenue Expenditure		
Salary, Wages and allowance etc	0.00	0.00
Rent	0.00	0.00
Other Administrative Expenses	0.00	0.00
<b>TOTAL (c) 0.00</b>	<b>0.00</b>	
<b>Net Balance as at the year end (a + b- c)</b>	<b>0.00</b>	<b>0.00</b>

**Notes**

- 1) Disclosures shall be made under relevant Heads based on conditions attaching to the Grants.
- 2) Plan Funds received from Central /State Governments are to be shown as separate Funds and not to be mixed up with any other Funds

**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount-Rs.)

	Current Year		Previous Year	
<b>SCHEDULE 4 - SECURED LOANS AND BORROWINGS:</b>				
1. Central Government		0.00		0.00
2. State Government (Specify)		0.00		0.00
3. Financial Institutions				
a) Term Loans		0.00		0.00
b) Interest accrued and due		0.00		0.00
4. Banks:				
a) Term Loans		0.00		0.00
- Interest accrued and due		0.00		0.00
b) Other Loans (specify)		0.00		0.00
- Interest accrued and due		0.00		0.00
5. Other Institutions and Agencies		0.00		0.00
6. Debentures and Bonds		0.00		0.00
7. Others (Specify)		0.00		0.00
<b>TOTAL</b>		<b>0.00</b>		<b>0.00</b>

**Note :**

Amounts due within one year

**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount-Rs.)

<b>SCHEDULE 5 - UNSECURED LOANS AND BORROWINGS:</b>	Current Year		Previous Year	
1. Central Government		0.00		0.00
2. State Government (Specify)		0.00		0.00
3. Financial Institutions		0.00		0.00
4. Banks:				
a) Term Loans		0.00		0.00
b) Other Loans (specify)		0.00		0.00
5. Other Institutions and Agencies		0.00		0.00
6. Debentures and Bonds		0.00		0.00
7. Fixed Deposits		0.00		0.00
8. Others (Specify)		0.00		0.00
<b>TOTAL</b>		<b>0.00</b>		<b>0.00</b>

Note : Amounts due within one year

<b>SCHEDULE 6 - DEFERRED CREDIT LOANS AND BORROWINGS:</b>	Current Year		Previous Year	
a) Acceptances secured by hypothecation of Capital equipment and other assets		0.00		0.00
b) Others		0.00		0.00
<b>TOTAL</b>		<b>0.00</b>		<b>0.00</b>

Note : Amounts due within one year

**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount-Rs.)

SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS	Current Year		Previous Year	
<b>A. CURRENT LIABILITIES</b>				
1. Acceptances		0.00		0.00
2. Sundry Creditors:				
a) For Goods		0.00		0.00
b) Others		0.00		0.00
3. Advances Received				
Development of project for High purity magnesia		78680.00		78680.00
4. Interest accrued but not due on:				
a) Secured Loans/borrowings		0.00		0.00
b) Unsecured Loans /borrowings		0.00		0.00
5. Statutory Liabilities:				
a) Over dues		0.00		0.00
b) Others		0.00		0.00
6. Other current Liabilities				
1) Salary Payable (Prof. Ganapathy)		1800.00		1800.00
2) Nominal Charges for Dissemination of TIFAC Report		6183.00		6183.00
3) Earnest Money (JVD Builders)		0.00		0.00
4) Security Ecorel Multitech System		10730.00		10730.00
5) Earnest Money (Maunnu Lal and Sons.)		500000.00		500000.00
6) Security Depoist				
Matrix Power products		15741.00		15741.00
Union Tech India P.Ltd		81017.00		81017.00
Apex Peripherals (I) Pvt. Ltd.		1845.00		1845.00
System Technology		1695.00		1695.00
M/s Mannu Lal & Sons (Electrical Works)		188564.00		474307.00
M/s Graphic System Pvt Ltd		89454.00		89454.00
M/s Mannu Lal & Sons (Interior/Civil)		0.00		324397.00
M/s Impressions Services Pvt. Ltd.		30000.00		30000.00

	Stale Cheque	0.00	102003.06
7)	Expenses Payable (As per Annexure9)	3887992.00	2201275.00
8)	CPF	0.00	0.00
9)	Computer Advance:Sh.S.K.Pandey	0.00	450.00
10)	Project ICOSER Annex.11)	10663154.00	10663154.00
11)	Indian Myanmar S&T Friendship library in yangon. (Annex.12)	959659.00	959659.00
12)	Indian Copper Market Focus on Recyclable (Annex. 13)	225916.00	225916.00
13)	MSEB-Ash Utilization / Management (Annex. 14)	2094887.00	2107131.00
14)	FAM Large Scale Stowing of HWP Pond Ash into the underground Mines of SCCL (M) Manuguru (Annex.15)	8294830.00	5296703.00
15)	Earth Quake Surviving Nature's Fury (Annex.16)	560057.00	1480100.00
16)	Earnest Money : M/s Geo - Hydromechs (India) Roorkee.	47750.00	30000.00
17)	Earnest Money : M/s Crompton Greaves (EPBAX Work & Lan Work).	15000.00	15000.00
18)	Earnest Money : M/s Impression Pvt Ltd, House Keeping Work of TIFAC Building.	20000.00	20000.00
19)	Earnest Money : M/s HCL Infosystem Ltd	50000.00	50000.00
20)	Fly Ash Sponsorship for National Seminar-cum- Business Meet.	317468.00	670705.00
21)	DRDO - PFC (Annex.18 )	732851.00	300000.00
22)	Sundry Creditor : M/s H.R.Electronics Pvt Ltd	8490.00	8490.00
23)	Sundry Creditor : M/s Mahashwari Rice Mills Pvt Ltd	0.00	1062500.00
24)	GSLIS	27.00	27.00
25)	Supply of Primary Bamboo Processing Machinery (Textile Machinery)(Handicraft)	0.00	1200000.00
26)	Pm's Relief Fund (TSUNAMI)	18128.00	18128.00
27)	MPSEB use of Fly Ash in Agriculture Development Thermal Power Plants Sarni (Annex.19)	1112250.00	0.00
28)	BASIC (Building and Strenthening Institutional Capacity for Climate Change.(Annex.20)	78705.00	0.00
29)	INDO-ISRAELI Workshop (Annex.21)	347395.00	0.00
30)	INDO-US Technology Management & Exchanges (Annx22)	346076.00	0.00
31)	Sh.Samson Geroge (L.T.A loan and Scooter Loan)	3500.00	0.00
32)	Sh.S.S.L Gupta (Legal Charges Payable)	1020.00	0.00
33)	<b>Fly Ash International Congress</b>		
	- Sponership for Seminar	2608400.00	0.00
	- Exhibitions/Delegation Fee (Foreign Delegate)	1702593.00	0.00



-	Delegation Fee for international Seminar		2208029.00		0.00
-	Exhibition Fee for International Seminar		762000.00		0.00
-	Proceeding Book/Project site		11500.00		0.00
-	Sundry Creditor : M/s APL Poly Fab Pvt Ltd		600000.00		0.00
34)	Pending Work (M/s Mannu Lal & Sons		25000.00		0.00
<b>TOTAL (A)</b>			<b>38708386.00</b>		<b>28027090.06</b>
<b>B. PROVISIONS</b>					
1.	FOR TAXATION		0.00		0.00
2.	GRATUITY		0.00		0.00
3.	SUPERANNUATION /PENSION		0.00		0.00
4.	ACCUMULATED LEAVE ENCASHMENT		0.00		0.00
5.	TRADE WARRANTIES/CLAIMS		0.00		0.00
6.	OTHERS (SPECIFY)		0.00		0.00
<b>TOTAL (B)</b>	0.00		0.00		
<b>TOTA (A+B)</b>			<b>38708386.00</b>		<b>28027090.06</b>

**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount-Rs.)

SCHEDULE 8-FIXED ASSETS	Gross Block				Description				Net Block	
	Cost / valuation As at beginning of the year	Additions during the year	Deductions during the year	Cost / valuation at the year end	As at the beginning of the year	On Additions during the year	On Deductions during the year	Total upto the year end	As at the current year end	As at the previous year end
<b>A. FIXED ASSETS</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1. a) Freehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
b) Leasehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. BUILDING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
a) On Freehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
b) On Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
c) Ownership Flats/ Premises	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d) Superstructures on Land not belonging to the entity	117850000.00	0.00	0.00	117850000.00	117850000.00	10606500.00	0.00	22391500.00	95458500.00	106065000.00
3. Plant Machinery & Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4. Vehicles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5. Furniture & Fixtures	1529863.60	22050.00	0.00	1551913.60	966834.49	58508.00	0.00	1025342.49	526571.11	563029.11
6. Office Equipment	19463051.06	429696.00	0.00	19892747.06	13132796.85	656557.77	0.00	13789354.62	6103392.44	630254.21
7. Computer/Peripherals	1618280.00	1707982.00	0.00	3326262.00	1314635.00	702352.20	0.00	2016987.20	1309274.80	303645.00
8. Electric Installations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9. Library Books	4803933.55	437015.00	0.00	5240948.55	4793747.05	284784.00	0.00	5078531.05	162417.50	10186.50
10. Tubewell & W.supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11. Other Fixed Assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL OF CURRENT YEAR</b>	145265128.21	2596743.00	0.00	147861871.21	31993013.39	12308701.97	0.00	44301715.36	103560155.85	113272114.82
<b>PREVIOUS YEAR</b>	14345332.21	1820286.00	8500.00	145265128.21	18546945.17	13446068.22	0.00	31993013.39		
<b>B. CAPITAL WORK IN PROGRESS</b>										
Cost of Assets on hire purchase basis included above										

TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)  
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006

(Amount-Rs.)

SCHEDULE 9- INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS	Current Year	Previous Year
1. In Government Securities	0.00	0.00
2. Other approved Securities	0.00	0.00
3. Shares	0.00	0.00
4. Debentures and Bonds	0.00	0.00
5. Subsidiaries and Joint Ventures	0.00	0.00
6. Others (to be specified)	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>

SCHEDULE 10 - INVESTMENTS - OTHERS	Current Year	Previous Year
1. In Government Securities	0.00	0.00
2. Other approved Securities	0.00	0.00
3. Shares	0.00	0.00
4. Debentures and Bonds	0.00	0.00
5. Subsidiaries and Joint Ventures	0.00	0.00
6. Others (to be specified)	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>

**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**  
(Amount-Rs.)

SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC.	Current Year		Previous Year	
<b>A. CURRENT ASSETS</b>				
1. Inventories:				
a) Stores and Spares	0.00		0.00	
b) Loose Tools	0.00		0.00	
c) Stock-in-trade				
Finished Goods	0.00		0.00	
Work-in-progress	0.00		0.00	
Raw Materials	0.00	0.00	0.00	0.00
2. Sundry Debtors:				
Sundry Debtor - DST	2723211.00		2639680.00	
Sundry Debtors-MTNL	5357.00		5357.00	
Sundry Debtors - Honorarium	5000.00		5000.00	
Sundry Debtor- DSIR	0.00		12712.00	
Sundry Debtor- Punjab Tech. Univ.	0.00		0.00	
Sundry Debtor - STM	40000000.00		40240969.00	
Sundry Debtor - Cabinet Sectt.	452549.00	43186117.00	450295.00	43354013.00
3. Cash balances in hand (including cheques/ drafts and imprest)		11764.00		39518.00
4. Bank Balances:				
a) With Scheduled Banks: (Union Bank of India)				
On Current Accounts	0.00		0.00	
On Deposit Accounts (Short term deposits) (Annex 7)	649687825.00		385475070.00	
On Savings Accounts	27804474.44		281816495.33	
On Interest Receivable	0.00	677492299.44	0.00	667291565.33
0) With non-Scheduled Banks:				
On Current Accounts		0.00		0.00
On Deposit Accounts		0.00		0.00
On Savings Accounts		0.00		0.00
5. Post Office-Savings Accounts		0.00		0.00
<b>Total (A)</b>	<b>720690180.44</b>		<b>710685096.33</b>	

<b>B. LOANS, ADVANCES AND OTHER ASSETS</b>				
1. Loans				
a) Staff (Annexure No. 1)		992968.00		652002.00
2. Advance and other amounts recoverable in cash or in kind or for value to be received.				
a) On capital Account				
1) Advance for projects materials				
IIM Bangalore	2630.00		2630.00	
SAIL NMPP.	19736.55	22366.55	19736.55	22366.55
b) Prepayments		0.00		0.00
c) Others				
- Advance : Franking Machine	40142.00		36675.00	
- Security Deposit Lease Accommodation (Sh.G.Srinivas)	29500.00		0.00	
- Security Deposit with Hauz Khas P.O.	17.00		17.00	
- Security Deposit MTNL	67500.00		61500.00	
- Security Deposit Lease Accommodation	0.00		9500.00	
- Advance to BISR (Haldwani)	76173.00		76173.00	
- Construction of Reception Office (DST)	3259953.00		3259953.00	
- Advance : Le-Meridian Hotel	489.00		0.00	
- Security Deposit:S.R.Enterprises	2700.00		2700.00	
- Security Deposit Tata Teleservices Ltd.	16000.00		16000.00	
- Advance : Rao Travels	16250.00		0.00	
- Security Deposit : M/s Mannu Lal & Sons	47986.00	3556710.00	0.00	3462518.00
3. Income Accrued:-				
a) On Investments from Earmarked/ Endowment Funds	0.00		0.00	
b) On Investment - Others	0.00		0.00	
c) On Loans and Advances	0.00		0.00	
d) Others (includes income due unrealized Rs.....)	0.00	0.00	0.00	0.00

4. Claims Receivable				
Interest HBA : Dr. D.N. Singh		49518.00		94518.00
Security Deposit : Guest House (Sarupriya Vihar)		75000.00		75000.00
Sundry Debtor : M/s Subramaniam Natraj & Associates		1435.00		1435.00
Sundry Debtor : Lease Rent		0.00		9500.00
Advance : M/s HCL Infosystems Ltd		0.00		1600000.00
Advance : Ashok Hotel		200000.00		200000.00
CPF		732.00		732.00
Sundry Debtor : NMBA		71748.00		0.00
Stale Cheque		223163.94		0.00
International Congress Seminar Expenses		787633.00		0.00
Total - B		5981274.49		6118071.55
Total (A + B)		726671454.93		716803167.88

**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount-Rs.)

SCHEDULE 11A - CAPITAL FUND IN PROGRESS)	Current Year		Previous Year	
i) Advance to IIT Delhi for Land & Building	0.00		0.00	
ii) Advance Mobilisation (Civil)	0.00		0.00	
iii) Advance Mobilisation (HVAC)	986413.00		986413.00	
iv) Interior Work of TIFAC Building(Civil/Elect)	43607775.00	44594188.00	42195911.00	43182324.00
		44594188.00		43182324.00

**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006**

(Amount-Rs.)

<b>SCHEDULE 12- INCOME FROM SALES /SERVICES</b>	Current Year	Previous Year
1. Income from Sales		
a) Sale of finished Goods	0.00	0.00
b) Sale of Raw Material	0.00	0.00
c) Sale of Scraps	0.00	0.00
2. Income from Services		
a) Labour and Processing Charges	0.00	0.00
b) Professional/Consultancy Services	0.00	0.00
c) Agency Commissions and Brokerage	0.00	0.00
d) Maintenance Services (Equipment/Property)	0.00	0.00
e) Others (Specify)	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>

<b>SCHEDULE 13- GRANTS/SUBSIDIES (TIFAC REGULAR)</b>	Current Year	Previous Year
(Irrevocable Grants & Subsidies Received)		
1. From Central Government		
A. <u>TIFAC GRANTS</u>		
Grants in Aid (Plan)	135000000.00	120000000.00
Grant in Aid (Non plan)	800000.00	900000.00
Grant in Aid : Bamboo Composite Laminates	0.00	33100000.00
2. State Government(s)	0.00	0.00
3. Government Agencies	0.00	0.00
4. Institutions/Welfare Bodies	0.00	0.00
5. International Organisations	0.00	0.00
6. Others (Specify)	0.00	0.00
<b>TOTAL</b>	<b>135800000.00</b>	<b>154000000.00</b>

**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006**

(Amount-Rs.)

<b>SCHEDULE 14- FEES/SUBSCRIPTIONS</b>	Current Year	Previous Year
1. Entrance Fees	0.00	0.00
2. Annual Fees/Subscriptions	0.00	0.00
3. Seminar/Program Fees	0.00	0.00
4. Consultancy Fees	0.00	0.00
5. Others (Specify)		
i) Tender Documents for EPABX & Lan Network for TIFAC Building	0.00	7000.00
ii) Technology Transfer Fee : Muncpal Solid Waste to Refuse Derived Fuel project for Grasim Cement Plants	0.00	150000.00
iii) Tender for Car Hiring Account	5000.00	0.00
iv) Technology Transfer Fee	47195.00	0.00
v) RTIA Questions	90.00	0.00
<b>TOTAL</b>	<b>52285.00</b>	<b>157000.00</b>

<b>SCHEDULE 15- INCOME FROM INVESTMENTS</b> (Income on Invest. From Earmarked/Endowment Funds transferred to Funds)	Investment from Earmarked Fund		Investment - Others	
	Current Year	Previous Year	Current Year	Previous Year
1. Interest				
a) On Govt. Securities	0.00		0.00	0.00
b) Other Bonds/Debentures	0.00		0.00	0.00
2. Dividends:				
a) On Shares	0.00		0.00	0.00
b) On Mutual Fund Securities	0.00		0.00	0.00
3. Rents	0.00		0.00	0.00
4. Others (Specify)	0.00		0.00	0.00
<b>TOTAL</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>
<b>TRANSFERRED TO EARMARKED/ENDOWMENT FUNDS</b>				



**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006**

(Amount-Rs.)

<b>SCHEDULE 16- INCOME FROM ROYALTY, PUBLICATION ETC.</b>	Current Year	Previous Year
1. Income from Royalty : Fertilizer Encyclopedia	400000.00	0.00
2. Income from Publications	306194.00	809498.87
3. Others (Specify)	0.00	0.00
4. Interest : Mobilisation Advance. (Civil)	0.00	71309.00
<b>TOTAL</b>	<b>706194.00</b>	<b>880807.87</b>

<b>SCHEDULE 17- INTEREST EARNED (REGULAR)</b>	Current Year	Previous Year
1. On Term Deposits:		
a) With Scheduled Banks	7656295.00	9184893.00
b) With Non-Scheduled Banks	0.00	0.00
c) With Institutions	0.00	0.00
d) Others	0.00	0.00
2. On Savings Accounts:		
a) With Scheduled Banks	8479389.00	3329416.00
b) With Non-Scheduled Banks	0.00	0.00
c) Post Office Savings Accounts	0.00	0.00
d) Others	0.00	0.00
3. On Loans:		
a) Employees/Staff	11278.00	10534.00
b) Others (Long term advances)	0.00	0.00
4. Interest on Debtors and Other Receivables	0.00	0.00
<b>TOTAL</b>	<b>16146962.00</b>	<b>12524843.00</b>
<b>Note - Tax deducted at source to be indicated</b>		

**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31.03.2006**

(Amount-Rs.)

<b>SCHEDULE 18-OTHER INCOME</b>	Current Year	Previous Year
1. Profit on Sale/disposal of Assets		
a) Owned assets	0.00	0.00
2. Assets acquired out of grants, or received free of cost	0.00	0.00
3. Export Incentives realized	0.00	0.00
4. Fees for Miscellaneous Services	0.00	0.00
5. Miscellaneous Income		
- Other receipts (computers) (TIFAC, FAUPT & ACPT)	10500.00	17800.00
- Other receipts	133765.00	177767.00
- Other receipt (TMS Study on Fuel Cell)	326.00	0.00
- Asian India Workshop	0.00	78582.00
- Foreign Exchanger Transfer	485907.00	0.00
- Construction :TIFAC Building / Interior (Tender Documents)	0.00	250000.00
- Bank Charges	15921.00	0.00
- STAP Technical Workshop	9224.00	0.00
<b>TOTAL</b>	<b>655643.00</b>	<b>524149.00</b>

<b>SCHEDULE 19- INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS &amp; WORK IN PROGRESS</b>	Current Year	Previous Year
a). Closing stock		
- Finished Goods	0.00	0.00
- Work-in-progress	0.00	0.00
b) Less: Opening Stock		
- Finished Goods	0.00	0.00
- Work -in -progress	0.00	0.00
<b>NET INCREASE/(DECREASE) [ a-b]</b>	<b>0.00</b>	<b>0.00</b>

**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE PERIOD/YEAR ENDED 31.03.2006**

(Amount-Rs.)

<b>SCHEDULE 20-ESTABLISHMENT EXPENSES (TIFAC REGULAR)</b>	Current Year	Previous Year
a) Salaries	13972950.00	13442795.00
b) Allowances and Bonus	0.00	0.00
c) TIFAC Contribution to Provident Fund	1322270.00	511469.00
d) Contribution to Other Fund (specify)e)	0.00	0.00
e) Staff Welfare Expenses	0.00	0.00
f) Expenses on Employees' Retirement and Terminal Benefits(Gratuity)	0.00	0.00
g) Others (Specify)	0.00	0.00
- Consulting charges	0.00	3690.00
- Honorarium	32245.00	27200.00
- Medical Expenses	694774.00	792983.00
- Leave Travel Concession	53113.00	147115.00
- Leave Salary & Pension Contribution	35638.00	116002.00
- Gratuity	96444.00	0.00
<b>TOTAL</b>	<b>16207434.00</b>	<b>15041254.00</b>

**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006**

(Amount-Rs.)

<b>SCHEDULE 21-ADMINISTRATIVE EXPENSES ETC.</b>	Current Year	Previous Year
a) Repairs and maintenance	468044.00	364760.00
b) Rent, Rates and Taxes	342350.00	2603178.00
c) Car Hire Charges	1131683.00	1173658.00
d) Postage, Telephone and Communication Charges	2583017.00	1943054.00
e) Printing and Stationary	1836246.00	1651389.00
f) Travelling and Conveyance Expenses	597474.50	2716507.00
g) Expenses on Seminary/Workshops/Meeting Expenses/Others Exp.	0.00	2012744.00
h) Subscription Expenses	1070730.00	1197026.00
i) Expenses on Fees (Tution fee)	5970.00	5280.00
j) Auditors Remuneration	19396.00	19396.00
k) Advertisement and Publicity	244943.00	1032749.00
l) Others (Specify)		
- Bank Charges	0.00	23641.00
- MISC. Office Expenses	2048829.00	1272448.00
- TIFAC Membership	22040.00	10000.00
m) Maintenance of Vishwakarma Bhavan	1000000.00	1000000.00
n) Legal Charges	495036.00	270120.00
o) Bio-Medical Engineering	0.00	7396.00
p) International Conference on Fly Ash	0.00	2100.00
q) Electricity Charges to IIT Delhi (TIFAC Building A-Wing)	1172300.00	0.00
r) Rajabhasha Committee Meeting	55912.00	0.00
s) Asean India Workshop	1807.00	0.00
<b>TOTAL</b>	<b>13095777.50</b>	<b>17305446.00</b>

**TECHNOLOGY INFORMATION FORECASTING AND ASSESSMENT COUNCIL (TIFAC) (REGULAR)**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006**

(Amount-Rs.)

SCHEDULE 22-EXPENDITURE ON GRANTS, SUBSIDIES ETC.	Current Year	Previous Year
a) Grants given to Institutions/Organisations Project Expenditure (As per Annexure-4)	69397117.00	90868906.00
b) Subsidies given to Institutions/Organisations	0.00	0.00
<b>TOTAL</b>	<b>69397117.00</b>	<b>90868906.00</b>

Note - Name of the Entities, their Activities along with the amount of Grants/Subsidies are to be disclosed.

SCHEDULE 23- INTEREST	Current Year	Previous Year
a) On Fixed Loans (Including Bank Charges)	0.00	0.00
b) On Other Loans (including Bank Charges)	0.00	0.00
c) Others (Specify)	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>

T.I.F.A.C  
TECHNOLOGY VISION 2020  
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006

(Amount-Rs.)

SCHEDULE 24- GRANTS/SUBSIDIES (VISION 2020) (Irrevocable Grants & Subsidies Received)	Current Year	Previous Year
2. From Central Government		
A. Technology Vision 2020 GRANTS		
Grants in Aid (Plan)	0.00	130000000.00
Grant in Aid (Non plan)	0.00	0.00
2. State Government(s)	0.00	0.00
3. Government Agencies	0.00	0.00
4. Institutions/Welfare Bodies	0.00	0.00
5. International Organisations	0.00	0.00
6. Others (Specify)	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>130000000.00</b>

SCHEDULE 25 - INTEREST EARNED	Current Year	Previous Year
1. On Term Deposits:		
a) With Scheduled Banks (Annexure 2)	10451433.00	8781390.00
b) With Non-Scheduled Banks	0.00	0.00
c) With Institutions	0.00	0.00
d) Others	0.00	0.00
<b>Total</b>	<b>10451433.00</b>	<b>8781390.00</b>

T.I.F.A.C  
TECHNOLOGY VISION 2020  
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006

(Amount-Rs.)

SCHEDULE- 26	Current Year	Previous Year
Other Income (Agriculture)	0.00	100000.00
Sponsorship Fee from ONGC	0.00	197800.00
Bank Charges	962.00	0.00
Other Income	1800.00	0.00
<b>TOTAL</b>	<b>2762.00</b>	<b>297800.00</b>

SCHEDULE- 27	Current Year	Previous Year
ESTABLISHMENT & ADMINISTRATIVE EXPENDITURE (Annexure 6)	3065632.00	4131882.00
<b>TOTAL</b> <b>3065632.00</b>	<b>4131882.00</b>	

SCHEDULE- 28	Current Year	Previous Year
Project Expenditure (Annexure 6 A)	123455710.00	83671536.00
<b>TOTAL</b>	<b>123455710.00</b>	<b>83671536.00</b>

**T.I.F.A.C**  
**PATENT FACILITATING CENTRE**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006**

(Amount-Rs.)

<b>SCHEDULE 29 GRANTS/SUBSIDIES</b> (Irrevocable Grants & Subsidies Received)	Current Year	Previous Year
3. From Central Government		
A. Patent Facilitating Centre GRANTS		
Grants in Aid (Plan)	15000000.00	10000000.00
Grant in Aid (Non plan)	0.00	0.00
2. State Government(s)	0.00	0.00
3. Government Agencies	0.00	0.00
4. Institutions/Welfare Bodies	0.00	0.00
5. International Organisations	0.00	0.00
6. Others (Specify)	0.00	0.00
<b>TOTAL</b>	<b>15000000.00</b>	<b>10000000.00</b>

<b>SCHEDULE 30 - INTEREST EARNED</b>	Current Year	Previous Year
1. On Term Deposits:		
a) With Scheduled Banks -	0.00	0.00
b) With Non-Scheduled Banks	0.00	0.00
c) With Institutions	0.00	0.00
d) Others	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>

Note - Tax deducted at source to be indicated



T.I.F.A.C  
PATENT FACILITATING CENTRE  
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006

(Amount-Rs.)

SCHEDULE - 31	Current Year	Previous Year
Other Income (Annexure 3)	176292.00	250437.00
<b>TOTAL</b>	<b>176292.00</b>	<b>250437.00</b>

SCHEDULE - 32	Current Year	Previous Year
ESTABLISHMENT & ADMINISTRATIVE EXPENDITURE (Annexure 3 A)	4023906.08	6825238.00
<b>TOTAL</b>	<b>4023906.08</b>	<b>6825238.00</b>

SCHEDULE - 33	Current Year	Previous Year
Project Expenditure (Annexure 3 B)	4937279.00	6694542.00
<b>TOTAL</b>	<b>4937279.00</b>	<b>6694542.00</b>

T.I.F.A.C  
 NATIONAL MISSION FOR BAMBOO APPLICATIONS  
 SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006

(Amount-Rs.)

SCHEDULE 34- GRANTS/SUBSIDIES (Irrevocable Grants & Subsidies Received)	Current Year	Previous Year
4. From Central Government	NMBA Accounts separated from TIFAC with effect from 01.04.2005 onwards. Please see Page No. 190 to 228	
A. National Mission for Bamboo Applications GRANTS		85149896.60
Grants in Aid (Plan)		0.00
Grant in Aid (Non plan)		0.00
2. State Government(s)		0.00
3. Government Agencies		0.00
4. Institutions/Welfare Bodies	0.00	
5. International Organisations	0.00	
6. Others (Specify)	0.00	
<b>Total</b>		<b>85149896.60</b>

SCHEDULE 35- INTEREST EARNED	Current Year	Previous Year
1. On Term Deposits:	NMBA Accounts separated from TIFAC with effect from 01.04.2005 onwards. Please see Page No. 190 to 228	
a) With Scheduled Banks		0.00
b) With Non-Scheduled Banks		0.00
c) With Institutions		0.00
d) Others		0.00
<b>Total</b>		<b>0.00</b>

Note - Tax deducted at source to be indicated

T.I.F.A.C  
 NATIONAL MISSION FOR BAMBOO APPLICATIONS  
 SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006

(Amount-Rs.)

SCHEDULE - 36	Current Year	Previous Year
Other Income : Sale of Publications Other Income (Computers)	NMBA Accounts separated from TIFAC with effect from 01.04.2005 onwards. Please see Page No. 190 to 228	74140.00
		2400.00
<b>TOTAL</b>		<b>76540.00</b>

SCHEDULE - 37	Current Year	Previous Year
Establishment & Administrative Expenditure (Annexure10)	NMBA Accounts separated from TIFAC with effect from 01.04.2005 onwards. Please see Page No. 190 to 228	6438544.00
<b>TOTAL</b>		<b>6438544.00</b>

SCHEDULE - 38	Current Year	Previous Year
Project Expenditure (Annexure10 A)	NMBA Accounts separated from TIFAC with effect from 01.04.2005 onwards. Please see Page No. 190 to 228	43135232.00
<b>TOTAL</b>		<b>43135232.00</b>

T.I.F.A.C  
 SCHOLARSHIP FOR WOMEN SCIENTISTS  
 SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006

(Amount-Rs.)

SCHEDULE - 39 GRANTS/SUBSIDIES (Irrevocable Grants & Subsidies Received)	Current Year	Previous Year
5. From Central Government		
A. SCHOLARSHIP FOR WOMEN SCIENTISTS GRANTS		
Grants in Aid (Plan)	5485000.00	0.00
Grant in Aid (Non plan)	0.00	0.00
2. State Government(s)	0.00	0.00
3. Government Agencies	0.00	0.00
4. Institutions/Welfare Bodies	0.00	0.00
5. International Organisations	0.00	0.00
6. Others (Specify)	0.00	0.00
<b>TOTAL</b>	<b>5485000.00</b>	<b>0.00</b>

SCHEDULE 40 - INTEREST EARNED	Current Year	Previous Year
1. On Term Deposits:		
a) With Scheduled Banks	0.00	0.00
b) With Non-Scheduled Banks	0.00	0.00
c) With Institutions	0.00	0.00
d) Others	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>

Note - Tax deducted at source to be indicated

T.I.F.A.C  
 SCHOLARSHIP FOR WOMEN SCIENTISTS  
 SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006

(Amount-Rs.)

SCHEDULE - 41	Current Year	Previous Year
Other Income	0.00	0.00
TOTAL	0.00	0.00

SCHEDULE - 42	Current Year	Previous Year
Expenditure (Stipend to women Scientist including exam expenses)	2965382.00	2120362.00
TOTAL	2965382.00	2120362.00

T.I.F.A.C  
 CORE-Group on Automotive Research (CAR)  
 SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006

(Amount-Rs.)

SCHEDULE 43 - GRANTS/SUBSIDIES (Irrevocable Grants & Subsidies Received)	Current Year	Previous Year
1. From Central Government		
A. CORE-Group on Automotive Research (CAR)	0.00	55000000.00
Grants in Aid (Plan) (PSA)	30000000.00	0.00
Grants in Aid (Plan) (Heavy Industries)	0.00	0.00
Grant in Aid (Non plan)	0.00	0.00
2. State Government(s)	0.00	0.00
3. Government Agencies	0.00	0.00
4. Institutions/Welfare Bodies	0.00	0.00
5. International Organisations	0.00	0.00
6. Others (Specify)	0.00	0.00
<b>TOTAL</b>	<b>30000000.00</b>	<b>55000000.00</b>

SCHEDULE 44 - INTEREST EARNED	Current Year	Previous Year
1. On Term Deposits:		
a) With Scheduled Banks	0.00	0.00
b) With Non-Scheduled Banks	0.00	0.00
c) With Institutions	0.00	0.00
d) Others	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>

Note - Tax deducted at source to be indicated

T.I.F.A.C  
 CORE-Group on Automotive Research (CAR)  
 SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006

(Amount-Rs.)

SCHEDULE 45	Current Year	Previous Year
Other Income	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>

SCHEDULE 46	Current Year	Previous Year
Establishment & Administrative Expenditure (Annexure17)	320018.00	0.00
<b>TOTAL</b>	<b>320018.00</b>	<b>0.00</b>

SCHEDULE 47	Current Year	Previous Year
Project Expenditure (Annexure17 A)	21069551.00	27923.00
<b>TOTAL</b>	<b>21069551.00</b>	<b>27923.00</b>

Technology Information, Forecasting & Assessment Council  
SCHEDULES FORMING PART OF ACCOUNTS FOR THE PERIOD ENDED 31.03.2006

SCHEDULE - 48

ACCOUNTING POLICIES AND NOTES TO THE ACCOUNTS FOR THE YEAR ENDING 31ST MARCH, 2006

A) ACCOUNTING POLICIES

- 1 The Council has adopted Mercantile System of the Accounting.
- 2 Fixed Assets are shown at cost Less Depreciation.
- 3 Prior period and extra ordinary items and changes in accounting policies having material impact on the financial affairs of the Council are disclosed.
- 4 Depreciation has been calculated as per Income Tax Act, 1961.Deviation are as per Note B(1) below.
- 5 Amounts released under various projects are accounted as expenditure for the year in which the same are released, irrespective of the fact that the amounts so released may not have been fully utilised towards the projects during the accounting year.
- 6 Unspent amount of grant received during the year for specific purposes has transferred to Capital Account.
- 7 The repayment of grant / assistance to TIFAC by the beneficiaries, as per condition stated in agreements with them shall be accounted on receipt basis.
- 8 All disbursements for projects are treated as expenditure during the Financial Year and assets created, if any, out of the said disbursements to the project, are not accounted for as assets in the books.
- 9 Contingent liabilities in respect of on-going Projects / Studies etc. are neither provided nor determined.
- 10 Total expenditure is not bifurcated in plan and non plan expenditures in financial statements.

B) NOTES TO THE ACCOUNTS

- 1 Depreciation amount Rs.12308701.97 has been provided during the financial year 2005-2006 but depreciation is not provided for Fixed Assets created in respect of following project (i.e expenditure on Fixed Assets treated as Revenue Expenditure)- Capital Expenditure of Vision 2020-Capital Expenditure of Patent Facilitating Centre- Capital Expenditure of National Mission on Bamboo Applications.



2. Stock of Publications and Studies, which are published and printed by the Council and distributed at a cost are not accounted for as Stock in hand at the end of the year.
3. Expenses for purchase of Capital Goods debited to grants utilized and not shown as fixed assets in the final statements are as below:

	CURRENT YEAR (Rs.)	PREVIOUS YEAR (Rs.)
Capital Expenditure of Vision 2020		
Furniture	4972.00	0.00
Office Equipment	1699.00	3600.00
Computer/ Peripherals	23180.00	24700.00
Patent Facilitating Centre		
Office Equipment	0.00	0.00
Computer	4576.00	180720.00
Furniture	0.00	0.00
MISSION PROJECT ON TECHNOLOGY FOR BAMBOO PRODUCTS		
Office Equipment	0.00	0.00
Computer/ Peripherals	0.00	149515.00
Furniture	0.00	9350.00
Others	0.00	2660.00

4. Audited financial statements / utilization statements duly certified by Chartered Accountants in respect of grant utilized / released during the year has not yet been received in some cases from the implementing agencies.
5. There are no query / note by parliament / Department of Science and Technology outstanding in respect of previous audited accounts of TIFAC. This is as certified by the registrar.
6. Previous year figures have been regrouped wherever necessary, to make them comparable with current year figures.
7. Accounts have been prepared as per New format provided by CAG for Non-profit organization. Previous year's figures have also been re-arranged as per new format. The format for Income & Expenditure A/cs has been changed in order to reflect all types of grants received by TIFAC in the account. The previous year's figures have been regrouped accordingly in the Income & Expenditure Account.
8. Liability towards gratuity payable on death / retirement of employees is not provided for.
9. Provision for accumulated leave encashment benefit to employees is not provided for.

10 Necessary Provision has been made for the following Expenses

Salary	1507240.00
Audit Fees	38792.00
Repair & Maintenance	59076.00
Car Hire Charges	133935.00
Telephone Expenses	80187.00
Other Expenses	2068762.00

for RAKESH RAJ & ASSOCIATES  
CHARTERED ACCOUNTANTS

-Sd-  
ASHWANI  
(Partner)

-Sd-  
ACCOUNTS OFFICER

-Sd-  
REGISTRAR  
TIFAC

-Sd-  
EXECUTIVE DIRECTOR  
TIFAC

Date : 13<sup>th</sup> November 2006  
Palce : New Delhi

**TECHNOLOGY INFORMATION, FORECASTING & ASSESSMENT COUNCIL**  
**SCHEDULES FORMING PART OF ACCOUNTS FOR THE PERIOD ENDED 31.03.2006**

**SCHEDULE 49 - CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS (Illustrative)**

**1. CONTINGENT LIABILITIES**

1.1. Claims against the Entity not acknowledged as debts - Rs.       NIL       (Previous year Rs.       NIL      )

1.2. In respect of

- Bank guarantees given by/on behalf of the Entity - Rs.       NIL       (Previous year Rs.       NIL      )

- Letters of Credit opened by Bank on behalf of the Entity - Rs.       NIL       (Previous year Rs.       NIL      )

- Bills discounted with banks Rs.       NIL       (Previous year Rs.       NIL      )

1.3. Disputed demands in respect of :

Income-tax Rs.       NIL       (Previous year Rs.       NIL      )

Sales-tax Rs.       NIL       (Previous year Rs.       NIL      )

Municipal Taxes Rs.       NIL       (Previous year Rs.       NIL      )

1.4. In respect of claims from parties for non-execution of orders, but contested by the Entity - Rs.       NIL       (Previous year Rs.       NIL      )

**2. CAPITAL COMMITMENTS**

Estimated value of contracts remaining to be executed on capital account and not provided for (net of advances) Rs.       NIL       (Previous year Rs.       NIL      )

**3. LEASE OBLIGATIONS**

Future obligations for rentals under finance lease arrangements for plant and machinery amount to Rs.       NIL       (Previous year Rs.       NIL      )

**4. CURRENT ASSETS, LOANS AND ADVANCES**

In the opinion of the Management, the current assets, loans and advances have a value on realization in the ordinary course of business, equal at least to the aggregate amount shown in the Balance Sheet.

**5. TAXATION**

In view of there being no taxable income under Income-tax Act 1961, no provision for Income Tax has been considered necessary.

**TECHNOLOGY INFORMATION, FORECASTING & ASSESSMENT COUNCIL**  
**SCHEDULES FORMING PART OF ACCOUNTS FOR THE PERIOD ENDED 31.03.2006**

**SCHEDULE 49 - CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS (Illustrative) - Contd**

6. FOREIGN CURRENCY TRANSACTIONS	(Amount-Rs.)	
6.1. Value of Imports Calculated on C.I.F. Basis:	Current Year	Previous Year
- Purchase of finished Goods	N.A.	N.A.
- Raw Materials & Components (Including in transit)	N.A.	N.A.
- Capital Goods	N.A.	N.A.
- Stores, Spares and Consumables	N.A.	N.A.
6.2. Expenditure in foreign currency:		
a) Travel	N.A.	N.A.
b) Remittances and Interest payment to Financial Institutions/ Banks in Foreign Currency	N.A.	N.A.
c) Other expenditure:		
- Commission on Sale	N.A.	N.A.
- Legal and Professional Expenses	N.A.	N.A.
- Miscellaneous Expenses	N.A.	N.A.
6.3. Earnings:		
Value of Exports on FO basis	N.A.	N.A.
6.4. Remuneration to auditors:		
As Auditors	0.00	0.00
- Taxation matters	0.00	0.00
- For Management services	0.00	0.00
- For certificate	0.00	0.00
Others		

7. Corresponding figures for the previous year have been regrouped/rearranged, wherever necessary.

8. Schedules 1 to 49 are annexed to and form an integral part of the Balance Sheet as at 31.03.2005 and the Income and Expenditure Account for the year ended on that date

## Annexure-1

### STAFF ADVANCES

A Advances	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
<b>Advances</b>		
RDCIS , Ranchi	4852.00	4852.00
<b>Staff Advance</b>		
Shri Shambu Kumar	544.00	544.00
Shri Ravi Dutt.	6500.00	0.00
Shri.Adarsh Mayya	5500.00	0.00
Shri Anil Kumar Rai	4544.00	10544.00
Shri Surender Kumar	10000.00	500.00
Shri Kamal Singh	9000.00	0.00
Shri.Arbind Kumar Singh	8000.00	0.00
Shri Sushil Kumar Jha	8000.00	2000.00
Ms. Mini K.K.	0.00	3000.00
Shri Rajan Sharma	1500.00	7500.00
Shri N.S. Nair	0.00	2500.00
Shri.T.Chakradhar	9000.00	4000.00
Dr.P.K.Anil Kumar	7960.00	2000.00
Ms. Poonam Nagpal	6000.00	0.00
<b>B. HBA Advance</b>		
Mr. N.S. Nair	45000.00	99000.00
<b>C. Scooter Advance</b>		
Shri Shambu Kumar	6500.00	12500.00
Shri.Ramesh Kumar	0.00	20650.00
Shri Ranbir Singh	6650.00	10850.00
Shri.D.Ghosh	0.00	2500.00
Shri.Rajan Sharma	15000.00	30000.00

## STAFF ADVANCES (Contd...)

A Advances	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
<b>D. Car Advance</b>		
Shri A.K. Ahuja	56250.00	68750.00
Shri.N.S.Nair	58160.00	71600.00
Shri.Deepak Bhatnagar	84000.00	120000.00
Shri.Suresh Kumar K	171000.00	0.00
Dr.Gautam Goswami	174000.00	0.00
<b>E. LTC</b>		
Shri.N.S.Nair	24400.00	0.00
Ms.Mala Sarpal	8900.00	0.00
Shri T.Chandrasekhar	0.00	13000.00
Shri.Shushil Kumar Jha	2250.00	1800.00
Shri.G.Srikanth	80000.00	0.00
Shri. Debabrata Majumder	11160.00	0.00
<b>F. Tour Advance</b>		
Shri.G.Srikanth	0.00	10000.00
Shri.Deepak Bhatnagar	4256.00	4000.00
Sh.S.K.Pandey	0.00	149912.00
Ms.Kiran A Zacharia	7000.00	0.00
Dr.S.K.Goel	1000.00	0.00
Shri. Suresh Babu	5000.00	0.00
Shri. Sajid Mubashir	81042.00	0.00
Dr. G.Srinivas	60000.00	0.00
Shri. N.S.Nair	10000.00	0.00
<b>Total</b>	<b>992968.00</b>	<b>652002.00</b>

## Annexure-2

### INTEREST EARNED (Technology Vision 2020)

1. On term Deposits	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
– Vision 2020	5235493.00	4044054.00
– Textile machinery	1172795.00	1059613.00
– Road Construction & Transportation	2738364.00	2552395.00
– Up gradation of Engg College	1304781.00	1125328.00
<b>Total</b>	<b>10451433.00</b>	<b>8781390.00</b>

## Annexure - 3

### PATENT FACILITATING CENTRE

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
<b>Other Income</b>		
Interest received on staff advances	0.00	528.00
Charges for computer provided at residence	0.00	3600.00
Patent search charges	322.00	226.00
CD ROM Ekaswa A & B	175970.00	244583.00
Nominal charges for dissemination of report	0.00	1500.00
<b>Total</b>	<b>176292.00</b>	<b>250437.00</b>

## Annexure -3A

### PATENT FACILITATING CENTRE

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
<b>Establishment &amp; Administrative Expenditure</b>		
Computer/peripherals.	4576.00	180720.00
Salary	1264628.00	878353.00
Medical Reimbursement	129850.00	54865.00
Honorarium	2000.00	0.00
Leave Travel Concession	4950.00	12112.00
Rent	0.00	321256.00
Printing Charges	578749.00	717258.00
Miscellaneous Office Expenses	68283.00	317878.00
Conveyance	2044.00	300.00
Telephone & Telex	53556.00	66067.00
Postage & Courier	101054.00	449830.00
Filing of Patent	1357257.00	3630967.00
Ekaswa A& B CD Rom	27055.08	30453.00
TIFAC Contributory Provident Fund	92319.00	61841.00
Car hire charges, annual subscription, – periodicals & Magazines, stationery, Meeting – Expenses, Traveling Expenses etc.	259314.00	91822.00
Repair & maintenance	34492.00	11516.00
Advertisement Expenses	32745.00	0.00
Patent Search Charges	11034	0.00
<b>Total</b>	<b>4023906.08</b>	<b>6825238.00</b>



## Annexure - 3B

### PATENT FACILITATING CENTRE

Particulars	Current Year	Previous Year
<b>Project Expenditure</b>		
Patent information Centre Lucknow	0.00	298800.00
Patent information Centre Kolkata	410117.00	0.00
Patent information Centre GB	483323.00	208000.00
Patent information Centre Tripura	60000.00	0.00
Patent Information Centre (ASTECC)	310276.00	0.00
Patent Information Centre Gandhinagar	45000.00	0.00
Patent Information Centre, MP Council S&T	230000.00	179000.00
Patent Information Centre, (PSCST)	121104.00	444944.00
Patent Information Centre, (HSCST)	0.00	559000.00
Patent Information Centre, (KSCST)	137400.00	559000.00
Patent Information Centre, (TSCST)	0.00	559000.00
Patent Information Centre, Srinagar	559000.00	0.00
Patent Information Centre, Goa	59000.00	559000.00
Patent Information Centre, Shimla	402532.00	0.00
Project related Expenditure (including patent workshop expenses)	2119527.00	3327798.00
<b>Total</b>	<b>4937279.00</b>	<b>6694542.00</b>

## Annexure - 4

### PROJECT EXPENSES (TIFAC Regular Account)

Particulars	Current Year Amount (Rs.)
<b>HOME GROWN TECHNOLOGIES</b>	
Project related expenses	997310.00
Development of Robots for Manufacturing	200000.00
Prebleaching of Kraft Pulp XYLA	350000.00
A Novel Method for the preparation of low molecular weigh heparin & phanmoceutical formulation camp	700000.00
Establishing Production & Marketing set up for production of Evaporation Boats	880000.00
Technology Development & Commercialization of Haemoconcentrators for open heart surgical application	360000.00
Manufacture of Nutan Himveer Bukhari	900000.00
Extraction of Favouring Compounds from Hops Using Liquid CO2 under high pressure.	5000000.00
Isolation & Characterization of Probiotics & Formulation of Symbiotic Preparations	2200000.00
<b>Sub Schedule Total</b>	<b>11587310.00</b>
<b>TECHNO MARKET SURVEY</b>	
TIFAC Study Technology For Retrofit of Existing Structures & Building to Make them Earthquake Resistant.	147500.00
Study on survey on FDI Based R&D units in India	175000.00
Bio-invasion SPS measures & import of wood & wood products into India	113252.00
<b>Sub schedule - Total</b>	<b>435752.00</b>
<b>TePP PROJECTS</b>	
Top loading , Bottom Heating & Fixed Type Solar Cooker	20000.00
Performance Evaluation of Indigenous Dialysis Device	100000.00
Temper Proof Seal for Disposable Bottles and Jars	250000.00
Auto - Distractor	44882.00
Design Refinement of JS Milker Manual Milking Machine	200000.00
Development of DCMCBS for 5KA 130/220	100000.00
Efficient Environment Friendly Geyser	120000.00
Publication of Advertisement in National Dairy & Regional News Paper for TePP Outreach Centre	600000.00
Udder care kit for prevention of Mastitis	29050.00

Contd...

## PROJECT EXPENSES (TIFAC Regular Account) (Contd...)

Particulars	Current Year Amount (Rs.)
Zadd clamping arrangement for pressure Cookers	15815.00
To Improve and Popularize wheel Phough & Multi Seed Drill	41076.00
Electronic Tagging of Book like objects	205000.00
Project Related Expenditure	105836.00
<b>Sub Schedule Total</b>	<b>1831659.00</b>
<b>Fly Ash Utilisation Programme</b>	
Demonstration-cum-Training programme on use of fly ash in Agriculture	55100.00
Agriculture related studies & Applications Trust Area	100000.00
Analysis of Trace Elements & Radioactivity in Fly Ash	300000.00
Pond Ash Soil, Water & Vegetation Samples	
Development/upgradation fo Technology for Technology for	300000.00
Manufacture of Cold Setting Fly Ash Bricks/Products wit	
Exploration of Removal of Pollutants from	300000.00
waste water using fly ash & Sunlight	
Granulometric & Mineralogical Evaluation of Fly	300000.00
Ash for Brick making & Allied Civil Works in North	
Use of Higher volumes of fly ash in concretes for	800000.00
RC structures in different Environment	
Film on proposal for comprehensive awarness	409950.00
Documentation & TV Programming	
Use of Fly Ash in Agriculture/wasteland development	82650.00
<b>Sub schedule Total</b>	<b>2647700.00</b>
<b>Advanced Composite Programme</b>	
Composite Application Laboratory at Department of	6000000.00
Chemical Engineering IIT-Kharagpur.	
Composites Interiors for Railway Passenger Coaches	7360000.00
Development of Composite Components for high-end passenger buses	4538400.00
Development of Filament wound Composite Road Tanker	2500000.00
Development of Multi Purpose Modular Housing System	1000000.00
High Speed Planning Type Composite Modular Acoustic Enclosure	1850000.00
Success Stories on Mass Media	1102000.00
Development of Composite House Boat	4950000.00
Development of Composite Interiors for driver's cabin for	1895200.00
diesel locomotives for Indian Railways	
Development of Composite Bracket Assembly for	2758000.00
Overhead Railway Electric Traction	

Contd...

## PROJECT EXPENSES (TIFAC Regular Account) (Contd...)

Particulars	Current Year Amount (Rs.)
<b>Sub schedule Total</b>	<b>33953600.00</b>
<b>MSEB (TIFAC Share)</b>	
MSEB Fly Ash in Agriculture	258074.00
MSEB Fly Ash in Brick Manufacturing	55729.00
MSEB Ash Utilization/Management Project	37268.00
<b>Sub schedule Total</b>	<b>351071.00</b>
<b>Energy Sector/Project</b>	
Energy Assessment in the Area of Bio Energy (Including Energy Plantation)	92500.00
Energy Assessment Study in the Area of In-Situ Coal Gasification	212500.00
Energy Assessment Study in the Area of Solar Thermal	100000.00
Energy Assessment Study in the Area of Offshore Wind	55100.00
Energy Assessment Study in the Area of Solar Photovoltaics	69000.00
<b>Sub schedule Total</b>	<b>529100.00</b>
Tsunami Devastation in South India, TIFAC Initiatives in Re-Building & Rehabilitation	7189589.00
Steel Section Encloser for Electrical Panels at Vishwakarma Bhavan	367453.00
Workshop on ICT as a Development Enabler-S&T Interventions	106111.00
Development of Polymer Electrolyte Membrane	450000.00
Water Electrolyser for Hydrogen Generation	
<b>Sub schedule Total</b>	<b>8113153.00</b>
Project Related Expenditure	9947772.00
<b>Sub schedule Total</b>	<b>9947772.00</b>
<b>Total</b>	<b>69397117.00</b>

## Annexure - 5

### REFUND FROM PROJECTS (TIFAC REGULAR ACCOUNT)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
<b>A) Home Grown Technology :</b>		
Chlorpyriphos Upgradation Modernization of manufacturing Method in India	1700000.00	1600000.00
Production of Gallic Acid from Tannic Acid	400000.00	400000.00
Commercialisation of Zierconium Nitride Coating using PVD Technique	1200000.00	0.00
Production of fully standardized Eco Friendly Natural Dyes.	13500000.00	6500000.00
Recycling of Titanium Scrap & Titanium casting	2600000.00	2500000.00
Establishment of Detonation Spray Coating Job Shop for coating of various components.	1869720.00	1100000.00
Manufacturing of 3,4, Dichloro Anillise using solvent free separation Technology.	0.00	450000.00
Pilot Plant for Production of Silicon Iron Casting	10000.00	10000.00
Development of Indigenous Capability and Commercialization of Coronary Brachy therapy Catheters	2225000.00	1375000.00
Development & Production of Indigenously Developed Flammable Gas Sensors & Other Monitoring Instruments	1600000.00	800000.00
Manufacture of Wiper Intermittent Module	366000.00	366000.00
A Noval method for the Preparation of Low molecular weight heparin	420000.00	0.00
Flexible Machining Centre	600000.00	0.00
Manufacture of Red Mud/Fly Ash Polymer Door Shutters	300000.00	0.00
Water Repellent Coating on Glasses	953596.00	0.00
Comercialization of Pelletisation Technology for biomass & combustible Waste	0.00	1700000.00
Development of High Performance Synthetic for Substitution of Kerosene in Pigment Printing	40795.00	0.00
Combating Silt Erosion of Hydro Turbine	0.00	203968.00
Commercially Attractive Hydrogen Generator Based on reforming of Natural Gas/mathanol in small and Medium capacity range.	760000.00	710000.00
Setting up of Semi-commercial Demonstration Facility for Manufacture of Organic Chemicals by high temperature vapour phase catalytic reaction	1635000.00	1600000.00
Manufacturing of Phytase Enzyme on Commercial Bank	0.00	900000.00
Pilot Plant for Production of Omega 3 Fish oil	2100000.00	1000000.00

Contd...

## REFUND FROM PROJECTS (TIFAC REGULAR ACCOUNT) (Contd...)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
Manufacturing Process for Ceramic Crucibles used for Carbon & Sulfur Analysis	0.00	836420.00
Eco-Friendly Lac Dye From Shellac Waste Water Effluent	1000000.00	800000.00
Pilot Scale Manufacture of Bio-Reactor	600000.00	1200000.00
Componentization of Human Blood towards optimization of Its utilization & Exploitation Bio Medic	800000.00	100000.00
<b>Sub Total (A)</b>	<b>34680111.00</b>	<b>24151388.00</b>
<b>(B) Fly Ash Utilisation Programme</b>		
FAUP use of Fly Ash for construction of Rural Road at Ranchi	183280.00	0.00
Setting up of Pilot Plant for large Scale Utilization of Fly Ash for Manufacture of Building Components	100000.00	100000.00
Large Scale Utilization of Fly Ash for Manufacture of Pre-Cast Building Components	0.00	100000.00
Fly Ash brick press project	80000.00	0.00
<b>Sub Total (B)</b>	<b>363280.00</b>	<b>200000.00</b>
<b>(C) Advanced Composites Programme</b>		
Project Development of FRP Components for Railways	1200000.00	1200000.00
Development of energy efficient flow fans	65000.00	250000.00
Development of composites refill cylinder for CNG	0.00	1194000.00
Composite Interiors for Drivers Cabin in Diesel Locomotive	659280.00	0.00
FRP Main Doors for Passenger & EMU Coaches for Indian Railways	1508000.00	1916000.00
Development of Composite Modular Acoustic Enclosure	857280.00	0.00
Jute Composite Components for Footwear	600000.00	1205380.00
Development of composite sky bus coaches	1194000.00	0.00
Development of Composite Modular Toilet unit for Railway Passenger Coaches	1336800.00	668400.00
Development of Composite Artificial Limbs	80000.00	40000.00
Development of Natural Fibre Based Composite Door Shutters and Panels	550000.00	0.00
Development of Composite Filament Wound Pressure Vessel	2388000.00	1862400.00
Bamboo Composite Laminates & Accessories	0.00	3084000.00
Development of GRP Grid for Gratings By Compression Moulding	1224000.00	1124000.00

Contd...

## REFUND FROM PROJECTS (TIFAC REGULAR ACCOUNT) (Contd...)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
Project on Vaccum Forming Press for Composite Fabrication	0.00	75000.00
Development Composites for Orthopedic Appliances	384000.00	384000.0
<b>Sub Total (C)</b>	<b>12046360.00</b>	<b>13003180.00</b>
<b>(D) Tepp Project</b>		
Leakage Protection Device for Generic Kerosene Based Pressure Stove	0.00	752.00
Quick & Consistent Coconut Breaker	0.00	2000.00
Development of Thermo cycler for Polymerase chain Reaction	125000.00	0.00
<b>Sub Total (D)</b>	<b>125000.00</b>	<b>2752.00</b>
<b>(E) TMS Project</b>		
Water & Waste Management in Aqua Culture	0.00	77118.00
<b>Sub Total (e)</b>	<b>0.00</b>	<b>77118.00</b>
<b>Total</b>	<b>47214751.00</b>	<b>37434438.00</b>

## Annexure - 6

### EXPENDITURE OF VISION 2020

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
<b>Establishment &amp; Administrative Expenditure</b>		
Misc Office Expenses	66958.00	95173.00
Consultancy Fee	128983.00	61370.00
Postage & Courier Services	0.00	300.00
Periodical & Magazine Charges	9963.00	13558.00
Printing Charges	99553.00	99321.00
Rent	0.00	628437.00
Repair and Maintenance	83631.00	24363.00
Telephone / Internet Charges	168964.00	174005.00
Car Hire Charges/ Conveyance	299886.00	341873.00
Medical Reimbursement	199528.00	94042.00
Salary	1375184.00	1129413.00
Office Equipment	1699.00	3600.00
Computer / Peripherals	23180.00	24700.00
Furniture	4972.00	0.00
Leave Travel Concession	19973.00	145295.00
Honorarium	195375.00	176755.00
Advertisement Expenses	100510.00	882846.00
Workshop Expenses/Exhibition	170600.00	198500.00
Employee's Contribution CPF	87484.00	38331.00
Legal Charges	11700.00	0.00
Transport Allowance (DST)	17489.00	0.00
<b>Total</b>	<b>3065632.00</b>	<b>4131882.00</b>



## Annexure - 6A

### PROJECT EXPENDITURE OF VISION 2020

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
<b>Agriculture Sector</b>		
Agro Services for Rural Development	0.00	382400.00
Study on Current Status of Potato production in parts of West Bangal & Suitability of Potatoes growing in parts of West Bangal for processing into different products	75840.00	0.00
Agriculture Project in Deoria	786000.00	250000.00
Agriculture Project in Uttaranchal, Chamoli	1250000.00	356600.00
Clean Milk Production in West Bangal	5000000.00	0.00
Genetic Improvement of Diary lives stock for sustainable livelihood	2291129.00	0.00
Promotion of Medicinal and Aromatic Plants in Paliganj Area, Patna	360000.00	0.00
Systems approach for increasing Agricultural Productivity at Kancheepuram	1063996.00	463588.00
Agriculture Project - Sikkim	382582.00	398372.00
Agriculture Project in Ballia	510000.00	344989.00
Agriculture Project in Bihar	816041.00	640978.00
Film on Clean Milk Production	0.00	301875.00
<b>Sub Total</b>	<b>12535588.00</b>	<b>3138802.00</b>
<b>Health Care Equipment</b>		
Manufacture of Micro Encapsulated Omega 3 Powder	7756000.00	0.00
Uttaranchal Project : Mobile Hospital and Research Centre in Uttaranchal.	1705144.00	1977702.00
Mobile Clinic & Research Centre in (Garhwal Region of Uttaranchal)	2500000.00	0.00
Uttaranchal TIFAC Nodel Technology Information Centre	200000.00	0.00
<b>Sub Total</b>	<b>12161144.00</b>	<b>1977702.00</b>
<b>Targeted Programme in Other Important Area</b>		
Production of Bone China Products	609581.00	600000.00
Joint R&D program for sustainable hydrogen economy technologies (RV-TIFAC-HETP) with Rashtreeya Shikshana Samithi Trust (RSST),Bangalore.	4000000.00	7400000.00
Development & implementation of phase shifting transformer (PST) with Static Regulation	6500000.00	0.00
Development & Implementation of LMVAR static compensator (STATCOM)	3187000.00	0.00
A6.6 MW Power Plant & Generated Electricity from processed Muncipal Solid West which is known as refuse derived fuel (RDF) Phase-II	0.00	6808000.00

Contd...

## PROJECT EXPENDITURE OF VISION 2020 (Contd...)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
National Judicial Academy Bhopal	1131200.00	0.00
TIFAC Nodal Technology Information Centre	0.00	100000.00
Installation of Ropeways at Uttaranchal	961814.00	299908.00
Preparation of Technology Documents & Monitoring the Performance status & Performance Evaluation of the plants for processing activity of municipal solid wast (MSW) & Generation of Electricity from Processed MSW	0.00	600000.00
Uttaranchal Development of Standard Water Mills	0.00	400000.00
Normative DATA for Brain Electrical Activation Profiling	780000.00	0.00
Development of Polymer Electrolyte Membrane water electrolysers (PEMME) for Hydrogen generation	450000.00	0.00
<b>Sub Total</b>	<b>17619595.00</b>	<b>16207908.00</b>
<b>Upgradation of Engineering College</b>		
TIFAC-CORE in Digital Image Processing	2220000.00	3913000.00
TIFAC-CORE in Advance Computing & Information Processing	1045180.00	0.00
TIFAC-CORE In Herbal Drug	500000.00	0.00
TIFAC-CORE in Net Work Engineering	0.00	9500000.00
TIFAC-CORE in Bio Medical Technology	13600000.00	0.00
TIFAC-CORE Clastic Petroleum Reservoir Engineering	5300000.00	0.00
TIFAC-CORE Ergonomics and Human Factors Engineering	4100000.00	0.00
TIFAC-CORE Industrial Safety	200000.00	0.00
TIFAC-CORE High Voltage & Power Systems	10610000.00	0.00
TIFAC-CORE Automative Electronics	7500000.00	0.00
Designing Developing & Maintaining Mission REACH	1659151.00	3235228.00
Website and Enabling Web Based Services		
TIFAC-CORE in Environmental Engineering	4000000.00	0.00
TIFAC-CORE in Diabetic Retinopathy	6566000.00	5193000.00
TIFAC-CORE in Wireless Technologies	4500000.00	0.00
TIFAC-CORE in Agro & Industrial Biotechnology	1070000.00	8099000.00
TIFAC-CORE in Power Transfromer	0.00	10500000.00
TIFAC-CORE in Pharmacogenomics	0.00	8000000.00
TIFAC-CORE in New Drug Delivery	0.00	7443000.00
TIFAC-CORE in Fiber Optics & Optical Communications	0.00	4250000.00
TIFAC-CORE in E-Learning for setting up the E-Learning contents Systems & Distance E-Learning Classrooms	10200000.00	0.00
TIFAC-CORE Textile Technology & Machinery	4600000.00	0.00
<b>Sub Total</b>	<b>77670331.00</b>	<b>60133228.00</b>
Project Related Expenditure	3469052.00	2213896.00
<b>Sub TotalL</b>	<b>3469052.00</b>	<b>2213896.00</b>
<b>TOTAL</b>	<b>123455710.00</b>	<b>83671536.00</b>

## Annexure - 7

### SHORT TERM DEPOSITS WITH BANKS

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
Short Term Deposits		
TIFAC	416215433.00	162454111.00
Agriculture Sector	1343561.00	1343561.00
Road Construction & Transportation	60903633.00	58165269.00
Textile Machinery	25255005.00	24082210.00
Upgradation of Engineering College	26949955.00	25645174.00
Vision 2020	119020238.00	113784745.00
<b>Total</b>	<b>649687825.00</b>	<b>385475070.00</b>

## Annexure - 8

### REFUND FROM PROJECT TECHNOLOGY VISION 2020

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
Technology Transer to Fisher Women of some Value added products from low cost sea fish	283200.00	0.00
Improved Surface treated Rings	0.00	1443000.00
Auto Leveller for Card	0.00	835343.00
Twin Delivery autoleveller draw frame	0.00	1924000.00
High Speed Comber	0.00	4070000.00
Technology Development of Two for One Twister	2465500.00	2465500.00
Development of Rapier Shuttleless Loom (Weaving Machine) 4 Color	0.00	154000.00
Weft Accumulator	279166.00	279166.00
Weft Set (Automatic Fabric straightening System) with data logging facilities	630036.00	630036.00
Percentage Add on Per meter indicator and automatic controller.	81600.00	81600.00
Cotton Contamination analyzer	177600.00	177600.00
Technology Upgradation in manufacture of automatic cone winder	12532650.00	12532650.00
Design, Development and Manufacture of Continuous Bleaching Range	1281997.29	0.00
Bitumin Indirect Heating Equipment	782600.00	782600.00
Kerb laying machine	443000.00	443000.00
Road Miller Machine	4174500.00	1391500.00
Paver Finishers	7207500.00	2402500.00
Self Propelled Articulated Crane Model F-15	2082000.00	2082000.00
Multi Purpose Loader Model M-1000	1798800.00	1798800.00
Production of Bone Chine Products	97740.00	54440.00
A 6.6 MW Power Plant & Generated Electricity from Processed Muncipal Solid Waste which is known as refuse derived fuel (RDF) Phase II	0.00	2000000.00
Non Destructive Testing of zari in silk Fabrics	564628.00	120000.00
National Judicial Academy Bhopal Under Synergizing S&T with judicial Processes	672226.00	0.00
Design & Development of Pilling Tester using Tigital Image Processing Technology	0.00	30000.00
Dye Exhaust Rate Controller	140000.00	140000.00
<b>Total</b>	<b>35694743.29</b>	<b>35837735.00</b>

## Annexure - 9

### EXPENSES PAYABLE

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
Salary Payable	1507240.00	1248119.00
M/s. Sansanwal Travels	119661.00	43969.00
M/s. MTNL	80187.00	73566.00
M/s. Bansal R. Kumar & Associates	0.00	19396.00
M/s. S.K. Enterprises	27400.00	22700.00
M/s. Uttam Infotech	11000.00	9000.00
M/s. New Age Tour & Travels	0.00	39853.00
M/s.R.D.Electricals	0.00	25000.00
M/s Ricoh India Ltd	20676.00	0.00
M/s. Deepak Travels	0.00	18781.00
M/s Gog's Travel Lines	14274.00	16895.00
M/s Rakesh Raj & Associates	38792.00	19396.00
M/s Travels Corporation (India) Ltd	2068762.00	664600.00
<b>Total</b>	<b>3887992.00</b>	<b>2201275.00</b>

## Annexure - 10

### NATIONAL MISSION ON BAMBOO APPLICATION

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
<b>Establishment &amp; Administrative Expenditure</b>		
Computer peripherals		149515.00
Furniture		9350.00
Library Books		2660.00
Salary		1579260.00
Medical Reimbursement.		61371.00
Rent		734913.00
Printing Charges		55698.00
Misc. off. Expenses		330782.00
Conveyance & Car hire Charges.		312360.00
Telephone charges		185525.00
Repairs & Maintenance		55407.00
Periodicals & Magazines		4361.00
Postage & Courier Services		452.00
Printing Of Publications		657129.00
Meeting Expenses		508320.00
Travel Abroad		629054.00
Travelling Expenses		743812.00
Employer's Contribution CPF		30259.00
Honorarium		50000.00
Leave Salary & Pension Contribution		212170.00
Leave Travel Concession		126146.00
<b>Total</b>		<b>6438544.00</b>

NMBA Accounts separated from TIFAC with effect from 01.04.2005 onwards. Please see Page No. 190 to 228

## Annexure - 10 A

### NATIONAL MISSION ON BAMBOO APPLICATION (Contd...)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
<b>Project Expenditure</b>		
- Development of application profiles		112500.00
- Assessment & projection of potential commercial units based on bamboo gasification & charcoal /activated carbon in three North-Eastern state of Tripura, Mizoram and Arunachal Pradesh		52359.00
- Development of bamboo cutter, compaction press, dehumidification of bamboo & activation of bamboo charcoal		1212267.00
- Bamboo characterization for thermo- chemical conversion & feasibility of bamboo based gassification & charcoal making		24437.00
- Assessment of promotion of potential commercial unit based on bamboo gasification and charcoal / activated carbon in 3 N-E state of Tripura, Mizoram and Arunachal Pradesh.		600000.00
- Prepration of a comprehensive,user-friendly bibliography of WBC-VII related literature and publishing it electronically in CD form and on the web.		2000.00
- Demonstration of drum charring unit in five location in India.		347900.00
- Demonstration of monopodial bamboo plantation in Arunachal Pradesh.		11500.00
- Development & standardized of technology for construction of bamboo sandwich composite material & production & development of techno -commercial project package for entrepreneurial action.		1061000.00
- Development of approach to communication, design & outreach, & a mission identify programme of NMBA.		450000.00
- Development & demonstration of structure application involving the use of bamboo & based materials.		184710.00
- Development of technology package & training manual for bamboo shot a processing at cluster level for lower capacity and self life & demonstration		269904.00

NMBA Accounts separated from TIFAC with effect from 01.04.2005 onwards. Please see Page No. 190 to 228

(Contd...)

## NATIONAL MISSION ON BAMBOO APPLICATION (Contd...)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
of the technology & equipment / machinery at 4 locations in N.E.		
- Development of value added applications in A.P involving use of bamboo & the commercialization of related technology - APTDC.		290000.00
- Documentation & appraisal of high end structures in bamboo.		150000.00
- Draft national building code (chapter 3B bamboo)		152133.00
- Establishment of a bamboo flooring & composites manufacture unit at Guwahati (KFPPL)		1500043.00
- Development and demonstration of structural application involving the use of bamboo and based material (Khammam, A.P)		13860.00
- Development & demonstration of a bamboo based housing at SALOD, Wardna.		851270.00
- Market survey study for assessment of market potential of bamboo flooring & bamboo furniture components.		100000.00
- Design & development of prototype of primary processing machineries for bamboo applications.		2061030.00
- Product promoting scheme of bamboo composite.		55332.00
- Propagation of phyllostachys pubescens in H.P Palampur.		338759.00
- Study on techno-commercial feasibility report on activated carbon from bamboo.		101338.00
- Development & standardization of technology for application of natural colourants on bamboo & bamboo products including creation of technology package and its demonstration & dissemination to potential entrepreneurs..		300000.00
- Evaluation of the technology package for the commercial production of bamboo boards / laminates - joint investigative analysis with IPIRTI, Bangalore & upscaling to techno-commercial packages.		275000.00
- UBFDB-Demonstration of Bamboo Plantation Based Technology for soil reclamation Community Level Cultivation.		1124800.00
- TERI Bamboo Plantation with soil Enrichment & Amendments using fly ash & Mycorrhizal in Koobra (Chattisgarh)		843144.00
- TERI Sehor (MP) Tech. Package for Bamboo Plantation with soil enrichment using fly ash & Mycorrhizal bio		896244.00
- Process of Bamboo Shoot at 8 Locations including 6 location in North-East, 1 in Karnataka & 1 in U.P.		632280.00
- Supply of Tissue Cultures plants of bambusa Balcooa, Bambusa Nutans & Dendrocalamus.		2141600.00

NMBBA Accounts separated from TIFAC with effect from 01.04.2005 onwards. Please see Page No. 190 to 228



## NATIONAL MISSION ON BAMBOO APPLICATION (Contd...)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
- Development of Continuous bamboo slat dryer by Erg.blr.		2600000.00
- Teri Prepration of a manual on tissue culture.		30000.00
- Development of NMBA Website on the Basis of already developed content structure & design Interface.		240440.00
- NEDFI, DBAI Bamboo Stick making unit establishment at Manipur.		1125000.00
- NEDFI (LVFPPL) Bamboo shoot Processing unit in Jorhat.		3000000.00
- Study on bamboo production consumption by VMRC,Mumbai		100000.00
- TERI Bambusetums for superior germplasm of Bamboos.		2722500.00
- NFPL Bamboo Shoot Processing Unit(1800TPA) by Nagaland Foods (P) Ltd, Nagaland.		2500000.00
- VEDHA Establishing demonstrative entt. In Mechanised Processing of Bamboo Fur. & Prod. Appl. Self su		715000.00
- Setting up 3 prefab/modular units in front locations of armi (Dinjan, Kibithu) by RV-TIFAC.		2454495.00
- IISC Two gasifire units at mountain division of the Indian Army .		1500000.00
- Pilot Scale study on activated carbon by M/s Nagalaxmi Industries.		150000.00
- Testing charges of bamboo products.		147599.00
- IHBT-Produce 60000 nos. of plant material of phyllostachys pubescens of good quality & provenance.		437000.00
- Gel coating / Resin Spraying Machine By RV-TIFAC (CDC), Bangalore.		762619.00
- Support for Coordinated trials for managed bamboo propagation by G.B Pant university.		143400.00
- 100KWE Demonstrative Gasifire unit at Alonga, Indian Army By IISC- Bangalore.		3600000.00
- High - End structure at the garden of five senses, New Delhi.		60000.00
- Supply of 460 sheets to gon by RV-TIFAC for constructing an enaborate site of bamboo Based Structures.		832140.00
- Development of Bamboo Fiber Production through non-destructive Route by IIT-Delhi.		340000.00
- Training / Demonstration program for cluster / Community level processing of Bamboo Shoot in different States.		300000.00
- Project related expenditure		3219629.00
<b>TOTAL</b>		<b>43135232.00</b>

NMBA Accounts separated from TIFAC with effect from 01.04.2005 onwards. Please see Page No. 190 to 228

## Annexure - 11

### PROJECT ICOSER

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
A) Balance Brought Forward	10663154.00	10663154.00
B) Income	0.00	0.00
Sub total	0.00	0.00
Refund from Project	0.00	0.00
Sub total	0.00	0.00
Total A+B	10663154.00	10663154.00
C) Expenditure:		
i) Capital Expenditure: Fixed Assets	0.00	0.00
ii) Revenue Expenditure	0.00	0.00
Total (i+ii) 'C'	0.00	0.00
Balance carried forward to next year (A+B-C)	10663154.00	10663154.00

## Annexure - 12

### GRANT INDIAN-MYANMAR S&T FRIENDSHIP LIBRARY IN YANGON

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
A) Balance Brought Forward	959659.00	959659.00
B) Income	0.00	0.00
Sub total	0.00	0.00
Total A+B	959659.00	959659.00
C) Expenditure :		
i) Capital Expenditure : Fixed Assets	0.00	0.00
ii) Revenue Expenditure :	0.00	0.00
Project Expenses	0.00	0.00
Total (I+ii) 'C'	0.00	0.00
Balance carried forward to next year (A+B-C)	959659.00	959659.00

## Annexure - 13

### INDIAN COPPER MARKET FOCUS ON RECYCLABLES

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
A) Balance Brought Forward	225916.00	225916.00
B) Income :		
Interest Earned	0.00	0.00
Other Income	0.00	0.00
Sub total	0.00	0.00
Total A+B	225916.00	225916.00
C) Expenditure :		
i) Capital Expenditure : Fixed Assets	0.00	0.00
ii) Revenue Expenditure :	0.00	0.00
iii) Project Expenditure	0.00	0.00
Total (i+ii+iii) 'C'	0.00	0.00
Balance carried forward to next year (A+B-C)	225916.00	225916.00

## Annexure - 14

### MSEB - ASH Utilization / Management

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
A) Balance Brought Forward	2107131.00	0.00
B) Income :		
Grant in Aid	364650.00	3388206.00
Interest Earned	0.00	0.00
Other Income	0.00	0.00
Sub total	0.00	0.00
Total A+B	2471781.00	3388206.00
C) Expenditure :		
i) Capital Expenditure : Fixed Assets	22418.00	0.00
ii) Revenue Expenditure :	51426.00	0.00
iii) Project Expenditure		
MSEB Fly Ash in Agriculture	247950.00	798950.00
MSEB Fly Ash In Brick Manufacture	55100.00	482125.00
Total (i+ii+iii) 'C'	376894.00	1281075.00
Balance carried forward to next year (A+B-C)	2094887.00	2107131.00

## Annexure - 15

### FAM Large Scale Stowing of HWP Pond Ash into the underground Mines of SCCL(Manuguru)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
A) Balance Brought Forward	5296703.00	0.00
B) Income :		
Grant in Aid	3000000.00	5296703.00
Interest Earned	0.00	0.00
Other Income	0.00	0.00
Sub total	0.00	0.00
Total A+B	8296703.00	5296703.00
C) Expenditure :		
i) Capital Expenditure : Fixed Assets	0.00	0.00
ii) Revenue Expenditure :	1873.00	0.00
iii) Project Expenditure	0.00	0.00
Total (i+ii+iii) 'C'	1873.00	0.00
Balance carried forward to next year (A+B-C)	8294830.00	5296703.00

## Annexure - 16

### Earthquake Serving Nature's Fury

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
A) Balance Brought Forward	1480100.00	0.00
B) Income :		
Grant in Aid	0.00	1585100.00
Interest Earned	0.00	0.00
Other Income	0.00	0.00
Sub total	0.00	0.00
Total A+B	1480100.00	1585100.00
C) Expenditure :		
i) Capital Expenditure : Fixed Assets	0.00	0.00
ii) Revenue Expenditure :	0.00	0.00
iii) Project Expenditure :		
Production of Film on Earth Quake	920043.00	105000.00
Total (i+ii+iii) 'C'	920043.00	105000.00
Balance carried forward to next year (A+B-C)	560057.00	1480100.00

## Annexure - 17

### CORE-Group on Automotive Research (CAR)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
Establishment & Administrative Expenditure	320018.00	0.00
<b>Total</b>	<b>320018.00</b>	<b>0.00</b>

## Annexure - 17A

### CORE-Group on Automotive Research (CAR)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
Project Expenditure		
Project Related Expenditure	21069551.00	27923.00
<b>Total</b>	<b>21069551.00</b>	<b>27923.00</b>

## Annexure - 18

### DRDO - PFC

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
A) Balance Brought Forward	300000.00	0.00
B) Income :		
Grant in Aid	3000448.00	300000.00
Interest Earned	0.00	0.00
Other Income	0.00	0.00
Sub total	0.00	0.00
Total A+B	3300448.00	300000.00
C) Expenditure :		
i) Capital Expenditure : Fixed Assets	0.00	0.00
ii) Revenue Expenditure :	0.00	0.00
iii) Project Expenditure :	2567597.00	0.00
Total (i+ii+iii) 'C'	2567597.00	0.00
Balance carried forward to next year (A+B-C)	732851.00	300000.00

## Annexure - 19

### MPSEB - Use of Fly Ash in Agriculture Development Thermal Power Plant, Sarni

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
A) Balance Brought Forward	0.00	0.00
B) Income :		
Grant in Aid	1250000.00	0.00
Interest Earned	0.00	0.00
Other Income	0.00	0.00
Sub total	0.00	0.00
Total A+B	1250000.00	0.00
C) Expenditure :		
i) Capital Expenditure : Fixed Assets	0.00	0.00
ii) Revenue Expenditure :	0.00	0.00
iii) Project Expenditure :	137750.00	0.00
Total (i+ii+iii) 'C'	137750.00	0.00
Balance carried forward to next year (A+B-C)	1112250.00	0.00

## Annexure - 20

### BASIC :Building and Strenthening Institutional Capacity for Climate Change

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
A) Balance Brought Forward	0.00	0.00
B) Income :		
Grant in Aid	236715.00	0.00
Interest Earned	0.00	0.00
Other Income	0.00	0.00
Sub total	0.00	0.00
Total A+B	236715.00	0.00
C) Expenditure :		
i) Capital Expenditure : Fixed Assets	0.00	0.00
ii) Revenue Expenditure :	0.00	0.00
iii) Project Expenditure :	158010.00	0.00
Total (i+ii+iii) 'C'	158010.00	0.00
Balance carried forward to next year (A+B-C)	78705.00	0.00

## Annexure - 21

### INDO-ISRAEL Workshop

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
A) Balance Brought Forward	0.00	0.00
B) Income :		
Grant in Aid	7870001.00	0.00
Interest Earned	0.00	0.00
Other Income	0.00	0.00
Sub total	0.00	0.00
Total A+B	787000.00	0.00
C) Expenditure :		
i) Capital Expenditure : Fixed Assets	0.00	0.00
ii) Revenue Expenditure :	0.00	0.00
iii) Project Expenditure :	439605.00	
Total (i+ii+iii) 'C'	439605.00	0.00
Balance carried forward to next year (A+B-C)	347395.00	0.00

## Annexure - 22

### INDO-US Technology Management & Exchanges

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
A) Balance Brought Forward	0.00	0.00
B) Income :		
Grant in Aid	1100000.00	0.00
Interest Earned	0.00	0.00
Other Income	0.00	0.00
Sub total	0.00	0.00
Total A+B	1100000.00	0.00
C) Expenditure :		
i) Capital Expenditure : Fixed Assets	0.00	0.00
ii) Revenue Expenditure :	0.00	0.00
iii) Project Expenditure :	753924.00	0.00
Total (i+ii+iii) 'C'	753924.00	0.00
Balance carried forward to next year (A+B-C)	346076.00	0.00



# TECHNOLOGY INFORMATION FORECASTING & ASSESSMENT COUNCIL

## Receipts & Payments for the period the year ended 31.3.2006

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
I) OPENING BALANCES		
a) Cash in hand	39518.00	7560.00
b) Bank Balances		
i) In current accounts	00.0	00.0
ii) In Deposit accounts	385475070.00	412164104.00
iii) Savings accounts	281816495.33	25114061.40
c) Advance for franking machine	36675.00	33250.00
II) GRANTS RECEIVED		
a) From Government of India- Plan (TIFAC)	135000000.00	120000000.00
b) From Government-Non Plan	800000.00	900000.00
c) From State Government	0.00	0.00
d) From Government of India-Plan (Vision 2020)	0.00	130000000.00
e) From Government of India- Bamboo Composite Laminates	0.00	33100000.00
f) From Government of India-CORE-Group on Automotive Research	30000000.00	55000000.00
f) From other sources (The Indian Copper Market Focus on Recyclable)	0.00	0.00
g) Scholourship for women scientist	5485000.00	0.00
III) INCOME FROM INVESTMENTS		
a) Earmarked/Endow. Funds	0.00	0.00
b) Own fund	0.00	0.00
IV) INTEREST RECEIVED		
a) On Bank Deposits (TIFAC)	16135684.00	12514309.00
b) Loans Advances etc. (Staff advances)	11278.00	10534.00
c) Interest from Vision 2020	10451433.00	8781390.00
V) Other Income (specify)		
- Refund from HGT projects (As per annexure-5)	34680111.00	24151388.00
- Refund from Vision 2020	35694743.29	35837735.00
- Garbage Processing Techno Transfer Fee	0.00	0.00

(Contd...)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
- Asian Indian Workshop	0.00	78582.00
- Other Income (As per Schedule 18)	655643.00	445567.00
- Setting up of Pilot Plant for Large Scale utilisation of Fly Ash for manufacture of Building components	100000.00	100000.00
<b>Receipts for Advanced Composites Mission</b>		
- Development of energy effiaxial flow fans	65000.00	250000.00
- Development of Composites refill Cylinder CNG	0.00	1194000.00
- Development of FRP Components for Railways	1200000.00	1200000.00
- FRP Main Doors for Passenger & EMU Coaches for Indian Railways	1508000.00	1916000.00
- Composite Interiors for Drivers Cabin in Diesel Locomotive	659280.00	0.00
- Jute Composite Components for Footwear	600000.00	1205380.00
- Development of Composite Modular Acoustic Enclosure	857280.00	0.00
- Development of Composite Modular Toilet unit for Railway Coaches	1336800.00	668400.00
- Development of Composite Artificial Limbs	80000.00	40000.00
- Development of Composite Sky Bus Coaches	1194000.00	0.00
- Development of Natural Fibre Based Composite Door Shutters and Panels	550000.00	0.00
- Development of Composite Filament Wound Pressure Vessel	2388000.00	1862400.00
- Bamboo Composite Laminates & Accessories	0.00	3084000.00
- Development of GRPGRID Gratings by Compression Moulding	1224000.00	1124000.00
- Project on Vaccum Froming Press for Composite Fabrication	0.00	75000.00
- Development Composites for Orthopedic Application	384000.00	384000.00
<b>Receipts for TePP Project</b>		
- Leakage Protection Device for Generic Kerosene Based Pressure Stove	0.00	752.00
- Quick & Consistent Coconut Breaker	0.00	2000.00
- Development of Thermo Cyler for Polymerase Chain Reaction	125000.00	0.00
<b>Receipts for Techno Market Survey</b>		
Water & Waste Management in Aqua Culture	0.00	77118.00
<b>Receipts for National Mission on Bamboo Applications</b>		
- Grants-in-Aid	0.00	86900000.00

(Contd...)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
- Income from Sale of Report	0.00	74140.00
- Charges for Computer Provided at Residence	0.00	2400.00
<b>Receipts for Patent Facilitating Centre</b>		
- Grant	15000000.00	10000000.00
- Patent search charges	322.00	226.00
- Ekaswa A&B CD Rom	175970.00	244583.00
- Nominal charges for Dissemination of TIFAC reports	0.00	1500.00
- Interest ( Long Term Advance)	0.00	528.00
- Charges for Computer Provided at residence	0.00	3600.00
<b>VI AMOUNT BORROWED</b>		
<b>VII OTHER RECEIPTS (GIVE DETAILS)</b>		
- Nominal Charges for Dissemination of TIFAC Reports	306194.00	809498.87
- Income from Royalty : Fertilizer Encylopedia	400000.00	0.00
- Tender for Car Hiring Account	5000.00	0.00
- Technology Transfer Fee	47195.00	0.00
- RTIA Questions	90.00	0.00
- Interest Mobilization Advance	0.00	71309.00
- Staff advances adjusted /Recovered	520966.00	1029006.00
- Stale cheque received	26191.00	3794.06
- Tender Documents for EPABX & Lan Network for TIFAC Building	0.00	7000.00
- Technology Transfer Fee-Municipal Solid Waste to Refuse Derived Fuel Project for Grasim	0.00	150000.00
- Seurity Deposite : Kendriya Vidyalaya Sangatan	0.00	2000.00
- Advance Mobilisation (Civil)	0.00	1447173.00
- Large Scale Utilization of Fly Ash for Manufacture of precast Building Components	0.00	100000.00
- Faup Use of Fly Ash for Construction of Rural Road at Ranch	183280.00	0.00
- Fly Ash Brick Press Project	80000.00	0.00
- Sponsorship Fee from ONGC	0.00	197800.00
- Office Equipment Received during the year	0.00	8500.00
- Security Deposit : Qutab Hotel	0.00	1840000.00
- Security Deposit : Guest House	0.00	46500.00
- Security Deposit : M/s Mannu Lal & Sons (Electrical Work)	0.00	474307.00
- Security Deposit : M/s Graphic System Pvt Ltd	0.00	89454.00
- Security Deposit : M/s Mannu Lal & Sons (Civil/Interior)	0.00	324397.00
- Security Deposit : M/s Impressions Services Pvt Ltd	0.00	30000.00
- MSEB - Ash Utilization / Management	364650.00	3388206.00
- FAM-Large Scale Stowing of HWP Pond Ash Into the Underground Mines of SCCL (Manuguru)	3000000.00	5296703.00

(Contd...)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
- Earthquake serving Nature's Fury	0.00	1585100.00
- Earnest Money : M/s Geo-Hydromechs (India), Roorkee	17750.00	30000.00
- Earnest Money : M/s Crompton Greaves (EPBAX Work & Lan Work)	0.00	15000.00
- Earnest Money : M/s Impression Pvt Ltd	0.00	20000.00
- Earnest Money : M/s HCL Infosystem Ltd	0.00	50000.00
- Fly Ash Sponsorship for National Seminar-cum-Business Meet	0.00	670705.00
- DRDO - PFC	3000448.00	300000.00
- Sundry Creditors : M/s H.R.Electronics Pvt Ltd	0.00	8490.00
- Sundry Creditors : M/s Mahashwari Rice Mills Pvt Ltd	0.00	1062500.00
- GSLIS	0.00	27.00
- Pm's Relief Fund (TSUNAMI)	0.00	18128.00
- Supply of Primary Bamboo Processing Machinery (Textile Machinery) Handicraft)	0.00	1200000.00
- Other Income (Agriculture)	0.00	100000.00
- HBA : Dr.D.N.Singh	0.00	185180.00
- Security Deposit : Lease Accomodation	9500.00	0.00
- Sundry Deposit : Lease Rent	9500.00	0.00
- Advance : M/s HCL Infosystems Ltd	1600000.00	0.00
- Bank Charges (Vision 2020)	962.00	0.00
- Interest : Dr. D.N.Singh	45000.00	0.00
- Other Income (Vision 2020)	1800.00	0.00
- MPSEB - Use of Fly Ash in Agriculture Development Thermal Power Plant, Sanni	1250000.00	0.00
- BASIC : Building & Strenthening Institutional Capacity for Climate Charges	236715.00	0.00
- INDO - ISRAEL Workshop	787000.00	0.00
- INDO - US Technology Management & Exchange	1100000.00	0.00
- Sh. Samson George (L.T.A Loan & Scooter Loan)	3500.00	0.00
- Sh.S.S.L Gupta (Legal Charges Payable)	1020.00	0.00
- Sponsorsip for Seminar	2608400.00	0.00
- Exhibition / Delegation Fee ( Foreign Delegates)	1702593.00	0.00
- Delegation Fee for International Seminar	2208029.00	0.00
- Exhibition Fee for International Seminar	762000.00	0.00
- Proceeding Books / Project Site	11500.00	0.00
- Sundry Creditor : M/s APL Poly Fab Pvt Ltd	600000.00	0.00
- Pending Work ( M/s Mannu Lal & Sons)	25000.00	0.00
- Sundry Debtor : DSIR	12712.00	0.00
- Sundry Debtor : STM	240969.00	0.00
<b>Total</b>	<b>984897266.62</b>	<b>989109285.33</b>

## PAYMENTS

Particulars		Current Year Amount (Rs.)	Previous Year Amount (Rs.)
1) Expenses			
a) Establishment Expenses (Corresponding to Schedule 20)	16207434.00		
Add : Opening Expenses Payable	1075684 .00		
Less Expenses Payable	1244219.00	16038899.00	14899101.00
b) Administrative Expenses (Corresponding to schedule 21)	13095777.50		
Add:Opening Expenses Payable	933760.00		
Add : Loss on sale of Fixed Assets	0.00	11668181.50	17515046.00
Less : Payables	2361356.00		
Less : Loss on sale of Fixed Assets (Previous year figure does not include obsolescence expenses in it.)	0.00		
c) Expenditure on Grants, Subsidies etc. (As per Schedule 22)		69397117.00	90868906.00
2) Payments made against funds for various projects.			
- Grant Utilisation-Patent Facilitating Centre	8961185.08		
- Add : Opening Expenses Payable	77560.00		
Less: Expenses Payable	101851.00	8936894.08	13599584.00
- Grant Utilisation- Vision 2020	126521342.00		
Add : Opening Expenses Payable	94875.00		
Less : Expenses Payable	161170.00	126455047.00	87939652.00
- Grant Utilisation- National Mission on Bamboo Applications	0.00		
Add : Opening Expenses Payable	0.00	0.00	49868708.00
- Grant Utilisation - Scholorship for Women Scientist		2965382.00	2120362.00
<b>Addition in fixed Assets</b>			
Office Equipment		429696.00	1403034.00
Furniture		22050.00	100380.00
Library Book		437015.00	25772.00
Computers and Peripherals		1707982.00	291100.00
<b>Refund of Surplus Money/Loans</b>			
a) Advance paid to staff		861932.00	655031.00
3) Other Payments (Specify)			
- M/s Mannu Lal & Sons (Electrical Works)		285743.00	0.00
- Security Deposit : M/s Mannu Lal & Sons (Civil/Interior)		324397.00	0.00

(Contd...)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
- Security Deposite Matrix Power project	0.00	24304.00
- Security Deposite System Technology	0.00	3860.00
- Interior Work of TIFAC Building	1411864.00	38348830.00
- Sundry Debtor- Cabinet Sectt.	2254.00	237961.00
- Sundry Debtors - STM.	0.00	239803.00
- Security Deposit :EcoRel Multitech Systems	0.00	79245.00
- Stale Cheque Paid	351358.00	0.00
- MSEB-Ash Utilization / Management	376894.00	1281075.00
- Earthquake Serving Nature's Fury	920043.00	105000.00
- Grant Utilisation - CORE-Group on Automotive Research	21389569.00	27923.00
- Earnest Money : JVD Buildiers	0.00	50000.00
- CPF	0.00	732.00
- Security Deposit : Guest House (Sarupriya Vihar)	0.00	75000.00
- Sundry Debtor : M/s Subramaniam Natraj & Associates	0.00	1435.00
- Sundry Debtor : Lease Rent	0.00	9500.00
- Advance : M/s HCL Infosystem Ltd	0.00	1600000.00
- Advance : Ashok Hotel	0.00	200000.00
- Interest HBA :Dr.D.N.Singh	0.00	170180.00
- Advance Le - Meridian Hotel	489.00	0.00
- Advance : Rao Travels	16250.00	0.00
- Security Deposit : M/s Munna Lal	47986.00	0.00
- Sundry Debtor : NMBA	71748.00	0.00
- International Congress Seminar Expenses	787633.00	0.00
- BASIC : Building & Strentaning Institutional Capacity for Climitte Change	158010.00	0.00
- INDO - ISREAL Worshop	439605.00	0.00
- INDO - US Technology Management & Exchange	753924.00	0.00
- Sundry Debtor- DST	83531.00	0.00
- Security Deposit : Lease Accomodation (Dr.G.Srinivas)29500.00	0.00	0.00
- FAM : Large Scale Stowing of HWP Pond Ash Into the Underground Mines pf SCC: (Manuguru)	1873.00	0.00
- Fly Ash Sponsorship for National Seminar-cum-Business Meet	353237.00	0.00
- DRDO - PFC	2567597.00	0.00
- MPSEB - Use of Fly Ash in Agriculture Development Thermal Power Plant, Sarni	137750.00	0.00
- Sundry Creditor : M/s Mahashwari Rice Mill Pvt Ltd	1062500.00	0.00
- Supply of Primary Bamboo Processing Machinery (Textile Machinery)	1200000.00	0.00

(Contd...)

Particulars	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
- Computer Advance : Sh.S.K.Pandey	450.00	0.00
- Security Deposit : MTNL	6000.00	0.00
<b>CLOSING BALANCE</b>		
Cash in Hand	11764.00	39518.00
Cash at Bank	27804474.44	281816495.33
Short Term Deposits	649687825.00	385475070.00
Franking Machine	40142.00	36675.00
Transferred to NMBA	35652660.60	0.00
<b>Total</b>	<b>984897266.62</b>	<b>989109285.33</b>

for RAKESH RAJ & ASSOCIATES  
CHARTERED ACCOUNTANTS

Sd/-  
ASHWANI TANEJA  
(Partner)

Sd/-  
ACCOUNTS OFFICER

Sd/-  
REGISTRAR  
TIFAC

Sd/-  
EXECUTIVE DIRECTOR  
TIFAC

Date : 13<sup>th</sup> Novemeber 2006

Palce : New Delhi

# Auditor's Report

The Chairman,  
Mission Mode Project on Sugar Production Technology - TIFAC  
NEW DELHI - 110 016

We have audited the attached Balance Sheet of MISSION MODE PROJECT ON SUGAR PRODUCTION TECHNOLOGIES, NEW DELHI as at 31st March, 2006 and the Income & Expenditure Account for the year ending on that date and report that date.

These financial statements are the responsibility of the management of the STM. 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 the management, as well as evaluating the overall presentations of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

Subject to Audit objection as per Annexure AR-1 and Notes on Account as per Annexure 24 & 25, we report that:-

- i) We have obtained all information and explanation which to the best our knowledge and belief, were necessary for the purpose of audit.
- ii) In our opinion proper books of account as required by law have been kept by STM.
- iii) The Balance Sheet and Income & Expenditure Accounts dealt with by this report are in agreement with the books of account.
- iv) In our opinion and to the best of our information and according to the explanations given to us, the said accounts read with the schedules and notes thereto give the information required by Society Registration Act, in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India.
  - a) In case of Balance Sheet, of the state of affairs of the above named project as at 31st March, 2006.
  - b) In case of Income & Expenditure Account, of the deficit for the accounting year ending on 31st March, 2006.

for RAKESH RAJ & ASSOCIATES  
Chartered Accountants

Sd/-  
ASHWANI TANEJA  
(Partner)

DATE : 13 November 2006  
PLACE : NEW DELHI



## **Annexure: AR 1 - Audit Objections**

1. TIFAC has been recognized as a Scientific and Industrial Research Organisation by Department of Scientific and Industrial Research (DSIR) for the period from 30.06.1993 to 31.03.1995 and subsequently from 01.04.1995 to 31.03.2000, 01.04.2000 to 31.03.2003 & 01.04.2003 to 31.03.2006 and TIFAC has been declared "SCIENTIFIC INSTITUTION" by the prescribed authority under Rule 6 of the Income Tax Rules for the purpose of Clause (ii) of Sub-section (l) of Section 35 of the Income Tax Act, 1961 vide Notification No. 951 (F. No. DG/IT(E)/ND-116/35(i)(ii)/93-IT(E) dated 30th November 1993. The Income Tax liability for earlier year if any will be provided in the books of account on the basis of actual payment to Income Tax Department. The recognition has expired on 31.03.2003. Application has been made for renewal but renewal has not been received so far after 31.03.2003.
2. Amount due but not received from beneficiaries of contributions as on 31.03.2006 was Rs. 140 Lacs, which has not been considered in the books of Accounts. It is the policy of STM to consider refunds from beneficiaries as Income of the year in which it is received back.
3. It is noticed that an Account with a name Earnest Money Deposit with a balance of Rs.38 lakh is highlighted in the books of Accounts but confirmations from various parties against which EMD were received is not made available to us. Hence we are not able to judge the reliability of the above account balance.
4. TDS has not been deducted in few cases, where payments have been made to the Transporters.

## **Audit queries in respect of Auditor's Report on Sugar Technology Mission**

1. Application for renewal of Income Tax exemption for the period from 01.04.2003 onwards was filed with Income Tax Department, New Delhi on 1st April 2004. No queries or objection has been raised by I.T. Department. However necessary notification granting exemption is yet to be issued by Income Tax Department. The Gazette notification from CBDT is awaited.
2. Efforts are being made to recover the full outstanding amount from the Projects.
3. Earnest Money Deposit:- EMD from various Sugar Industries for preparing study reports was received and the same has been deposited into our Bank Account. So far these Industries have not claimed the refund.
4. Initially during the year 2005-2006 TDS from the Transporters have not been deducted on the plea that the taxies were engaged on daily basis based on the requirement for the day to day functioning. However TDS has been deducted from the bills received later on.

**Mission Mode Project on Sugar Production Technology**  
**BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

<u>CORPUS/CAPITAL FUND AND LIABILITIES</u>	Schedule	Current Year	Previous Year
CORPUS /CAPITAL FUND	1	67231694.43	59353477.43
RESERVES AND SURPLUS	2	.....	.....
EARMARKED/ ENDOWMENT FUNDS	3	.....	.....
SECURED LOANS AND BORROWINGS	4	.....	.....
UNSECURED LOANS AND BORROWINGS	5	.....	.....
DEFERRED CREDIT LIABILITIES	6	.....	.....
CURRENT LIABILITIES AND PROVISIONS	7	44504181.00	48881221.00
<b>TOTAL</b>		<b>111735875.43</b>	<b>108234698.43</b>
<b>ASSET</b>			
FIXED ASSETS	8	537432.00	664054.00
INVESTMENTS - FROM EARMARKED/ ENDOWMENT FUNDS	9	.....	.....
INVESTMENTS - OTHERS	10	.....	.....
CURRENT ASSETS, LOANS, ADVANCES ETC.	11	111198443.43	107570644.43
MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)			
<b>TOTAL</b>		<b>111735875.43</b>	<b>108234698.43</b>
SIGNIFICANT ACCOUNTING POLICIES	24		
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	25		

SUBJECT TO OUR REPORT OF EVEN DATE.

for RAKESH RAJ & ASSOCIATES  
Chartered Accountants

Sd/-  
ASHWANI TANEJA  
(PARTNER)

Sd/-  
ACCOUNTS OFFICER

Sd/-  
REGISTRAR

Sd/-  
MISSION DIRECTOR

Date : 13 November 2006  
Place : New Delhi

**Mission Mode Project on Sugar Production Technology**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD/YEAR ENDED 31.03.2006**

(Amount – Rs.)

<b>INCOME</b>	Schedule	Current Year	Previous Year
Income from Sales/ Services	12	0.00	0.00
Grants/Subsidies	13	0.00	0.00
Fees/ Subscriptions	14	100000.00	0.00
Income from Investments	15	0.00	0.00
Income from Royalty, Publication etc.	16	4920.00	3600.00
Interest Earned	17	7271802.00	4538893.00
Other Income	18	4115000.00	11495000.00
Increase/(decrease) in stock of Finished goods and works-in-progress	19	0.00	0.00
<b>TOTAL (A)</b>		<b>11491722.00</b>	<b>16037493.00</b>
<b>EXPENDITURE</b>			
Establishment Expenses	20	2622584.00	2600120.00
Other Administrative Expenses etc.	21	820632.00	3248982.00
Expenditure on Grants, Subsidies etc.	22	0.00	24925000.00
Interest	23	0.00	0.00
Depreciation (Net Total at the year end)	8	170289.00	241962.00
<b>TOTAL (B)</b>		<b>3613505.00</b>	<b>31016064.00</b>
Balance being excess of Income over Expenditure (A-B)		7878217.00	(-) 14978571.00
Transfer to Special Reserve(Specify each)		0.00	0.00
Transfer to/from General Reserve		0.00	0.00
<b>BALANCE BEING SURPLUS (DEFICIT) CARRIED TO CORPUS/CAPITAL FUND</b>		<b>7878217.00</b>	<b>(-) 14978571.00</b>
SIGNIFICANT ACCOUNTING POLICIES	24		
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	25		
SUBJECT TO OUR REPORT OF EVEN DATE.			

for RAKESH RAJ & ASSOCIATES  
Chartered Accountants

Sd/-  
ASHWANI TANEJA  
(PARTNER)

Sd/-  
ACCOUNTS OFFICER

Sd/-  
REGISTRAR

Sd/-  
MISSION DIRECTOR

Date : 13 November 2006  
Place : New Delhi

**Mission Mode Project on Sugar Production Technology**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

SCHEDULE 1 - CORPUS/CAPITAL FUND :	Current Year		Previous Year	
	Balance at the beginning of the year		59353477.43	
Add : Contributions toward Corpus/Capital Fund	NIL		NIL	
Add/(Deduct) : Balance of net income/expenditure transferred from the Income and Expenditure Account	7878217.00	7878217.00	(-)14978571.00	(-)14978571.00
<b>BALANCE AS THE YEAR -END</b>		<b>67231694.43</b>		<b>59353477.43</b>

SCHEDULE 2 - RESERVE AND SURPLUS :	Current Year		Previous Year	
	1. Capital Reserve :			
As per last Account				
Addition during the year				
Less : Deductions during the year				
2. Revaluation Reserves :				
As per last Account				
Addition during the year				
Less : Deductions during the year	.....NIL.....	.....NIL.....	.....NIL.....	.....NIL.....
3. Special Reserve :				
As per last Account				
Addition during the year				
Less : Deductions during the year				
4. General Reserve :				
As per last Account				
Addition during the year				
Less : Deductions during the year				
<b>TOTAL</b>				

**Mission Mode Project on Sugar Production Technology**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

SCHEDULE 3 - EARMARKED/ENDOWMENT FUNDS	FUND-WISE BREAK UP				TOTAL	
	Fund WW	Fund XX	Fund YY	Fund ZZ	Current Year	Previous Year
a) Opening balance of the funds b) Additions to the Funds: <ul style="list-style-type: none"> <li>i. Donations /grants</li> <li>ii. Income from investments made on account of funds</li> <li>iii. Other additions (specify nature)</li> </ul>			.....NIL.....			
<b>TOTAL (a+b)</b>						
c) Utilization /Expenditure towards objectives of funds <ul style="list-style-type: none"> <li>i. Capital Expenditure                             <ul style="list-style-type: none"> <li>- Fixed Assets</li> <li>- Others</li> </ul>                             Total                         </li> <li>ii. Revenue Expenditure                             <ul style="list-style-type: none"> <li>- Salaries , Wages and allowance etc.</li> <li>- Rent</li> <li>- Other Administrative expenses</li> </ul> </li> </ul>			.....NIL.....			

Total (c)

NET BALANCE AS AT THE YEAR END (a+b-c)

**Mission Mode Project on Sugar Production Technology**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

SCHEDULE 4 - SECURED LOANS AND BORROWINGS	Current Year		Previous Year	
1. Central Government				
2. State Government (Specify)				
3. Financial Institutions				
a) Term Loans				
b) Interest accrued and due	.....NIL.....	.....NIL.....	.....NIL.....	.....NIL.....
4. Banks:				
a) Term Loans- Interest accrued and due				
b) Other Loans (specify)				
- Interest accrued and due				
5. Other Institutions and Agencies				
6. Debentures and Bonds				
7. Others (Specify)				
<b>TOTAL</b>				

Note : Amounts due within one year

**Mission Mode Project on Sugar Production Technology**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

<b>SCHEDULE 5 - UNSECURED LOANS AND BORROWINGS:</b>	Current Year		Previous Year	
	1. Central Government 2. State Government (Specify) 3. Financial Institutions 4. Banks: a) Term Loans b) Other Loans (specify) 5. Other Institutions and Agencies 6. Debentures and Bonds 7. Fixed Deposits 8. Others (Specify)	....NIL.....	....NIL.....	....NIL.....
<b>TOTAL</b>				

Note: Amounts due withing one year

<b>SCHEDULE 6 - DEFERRED CREDIT LIABILITIES:</b>	Current Year	Previous Year
	a) Acceptances secured by hypothecation of Capital equipment and other assets b) Others	....NIL.....
<b>TOTAL</b>		

Note: Amounts due withing one year



Mission Mode Project on Sugar Production Technology  
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006

(Amount – Rs.)

SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS	Current Year		Previous Year	
<b>A. CURRENT LIABILITIES</b>				
1. Acceptances		0.00		0.00
2. Sundry Creditors:				
a) Implimentation Prog.-Fiji Sugar Industries		512233.00		4564931.00
b) Others - Prime Minister National Relief Fund		0.00		3968.00
3. Advances Received (TIFAC)		40000000.00		40240969.00
4. Interest accrued but not due on:				
a) Secured Loans/borrowings		0.00		0.00
b) Unsecured Loans /borrowings		0.00		0.00
5. Statutory Liabilities:		0.00		0.00
a) Over dues		0.00		0.00
b) Others		0.00		0.00
6. Other current Liabilities-				
- Earnest Money (As per Annexure - C)		3800000.00		3800000.00
- Security Deposit M/s. Matrix Power		0.00		0.00
- Stale cheques		3632.00		2530.00
- Expenses Payable (Annexure -D)		188316.00		268823.00
<b>TOTAL (A)</b>		<b>44504181.00</b>		<b>48881221.00</b>
<b>B. PROVISIONS</b>				
1. For Taxation		0.00		0.00
2. Gratuity		0.00		0.00
3. Superannuation /Pension		0.00		0.00
4. Accumulated Leave Encashment		0.00		0.00
5. Trade Warranties/Claims		0.00		0.00
6. Others (Specify)		0.00		0.00
<b>TOTAL (B)</b>		<b>0.00</b>		<b>0.00</b>
<b>TOTAL (A+B)</b>		<b>44504181.00</b>		<b>48881221.00</b>

**Sugar Technology Mission**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

SCHEDULE 8 - FIXED ASSETS	GROSS BLOCK				DEPRECIATION				NET BLOCK	
	Cost /valuation As at beginning of the year	Additions during the year	Deductions during the year	Cost /valuation at the year end	As at the beginign of the year	On Additions during the year	On Deductions for the year	Total up to the year end	As at the Current year end	As at the Previous year end
DESCRIPTION										
A. FIXED ASSETS										
1. LAND										
a) Freehold										
b) Leasehold										
2. BUILDINGS:										
a) On Freehold Land										
b) On Leasehold Land										
c) Ownership Flats/Premises										
d) Superstructures on Land not belonging to the entity										
3. PLANT MACHINERY & EQUIPMENT										
4. VEHICLES										
5. FURNITURE, FIXTURES	99414	0	(.....)	99414	65990	3342	.....	69332	30082	33424
6. OFFICE EQUIPMENT	1408403	2975	(.....)	1411378	884584	52531	.....	937115	474263	523819
7. COMPUTER /PERIPHERALS	244002	0	(.....)	161284	161284	49631	.....	210915	33087	82718
8. ELECTRIC INSTALLATIONS			(.....)							
9. LIBRARY BOOKS	134774	40692	(.....)	175466	110681	64785	.....	175466	0	24093
10. TUBEWELLS & W.SUPPLY	.....		(.....)							
11. OTHER FIXED ASSETS	.....		(.....)							
<b>TOTAL OF CURRENT YEAR</b>	<b>1886593</b>	<b>43667</b>	<b>(.....)</b>	<b>1930260</b>	<b>1222539</b>	<b>170289</b>	<b>.....</b>	<b>1392828</b>	<b>537432</b>	<b>664054</b>
<b>PREVIOUS YEAR</b>	<b>1792393</b>	<b>94200</b>	<b>(.....)</b>	<b>1886593</b>	<b>980577</b>	<b>241962</b>	<b>.....</b>	<b>1222539</b>	<b>664054</b>	<b>811816</b>
B. CAPITAL WORK IN PROGRESS	.....		.....	.....	.....	.....	.....	.....	.....	.....
<b>TOTAL</b>	<b>1886593</b>	<b>43667</b>	<b>(.....)</b>	<b>1930260</b>	<b>1222539</b>	<b>170289</b>	<b>.....</b>	<b>1392828</b>	<b>537432</b>	<b>664054</b>
(note to be given as to Cost of assets on hire purchase basis included above)										

**Sugar Technology Mission**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

SCHEDULE 9 - INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS	Current Year	Previous Year
1. In Government Securities	.....NIL.....	.....NIL.....
2. Other approved Securities		
3. Shares		
4. Debentures and Bonds		
5. Subsidiaries and Joint Ventures		
6. Others (to be specified)		
<b>TOTAL</b>		

SCHEDULE 10 -INVESTMENTS - OTHERS	Current Year	Previous Year
1. In Government Securities	.....NIL.....	.....NIL.....
2. Other approved Securities		
3. Shares		
4. Debentures and Bonds		
5. Subsidiaries and Joint Ventures		
6. Others (to be specified)		
<b>TOTAL</b>		

**Mission Mode Project on sugar production Technology**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

<u>SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC.</u>	Current Year		Previous Year	
<u>A CURRENT ASSETS</u>				
1. <u>Inventories:</u> <ul style="list-style-type: none"> <li>a) Stores and Spares</li> <li>b) Loose Tools</li> <li>c) Stock-in-trade</li> <li style="padding-left: 40px;">Finished Goods</li> <li style="padding-left: 40px;">Work-in-progress</li> <li style="padding-left: 40px;">Raw Materials</li> </ul>			.....NIL.....	.....NIL.....
2. <u>Sundry Debtors:</u> <ul style="list-style-type: none"> <li>a) Debts Outstanding for a period exceeding six Months</li> </ul>				0.00
4. <u>Cash balances in hand (including cheques/drafts and imprest</u>		406.00		2169.00
5. <u>Bank Balances:</u> <ul style="list-style-type: none"> <li>a) <u>With Scheduled Banks:</u> <ul style="list-style-type: none"> <li>- On Current Accounts</li> <li>- On Deposit Accounts (Short Term Deposit)</li> <li>- On Savings Accounts</li> <li>- On Flexi Account</li> </ul> </li> <li>b) <u>With non-Scheduled Banks:</u> <ul style="list-style-type: none"> <li>- On Current Accounts</li> <li>- On Deposit Accounts</li> <li>- On Savings Accounts</li> </ul> </li> </ul>	0.00	50158219.43	12149806.00	48830887.00
		111138912.43		107549350.43
5. <u>Post Office-Savings Accounts</u>				
<b>TOTAL (A)</b>		<b>111139318.43</b>		<b>107551519.43</b>

Mission Mode Project on sugar production Technology  
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006

(Amount – Rs.)

SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC. (Contd)	Current Year		Previous Year	
<b>B. <u>LOANS , ADVANCES AND OTHER ASSETS</u></b>				
1. <u>Loans:</u>				
a) Staff				
b) Other Entities engaged in activities/ objectives similar to that of the Entity		46000.00		6000.00
c) Other (specify)				
2. <u>Advances and other amounts recoverable in cash or in kind or for value to be received</u>				
a) On Capital Account		.....NIL.....		.....NIL.....
b) Prepayments				
c) Others (Security with MTNL)				
d) TDS ( On Consultancy)		13125.00		13125.00
3. <u>Income Accrued:</u>				
a) On Investments from Earmarked/ Endowment Funds				
b) On Investments - Others				
c) On Loans and Advances				
d) Others (include income due unrealised -Rs....)				
4. <u>Claims Receivable</u>				
<b>TOTAL (B)</b>		59125.00		19125.00
<b>TOTAL (A+B)</b>		111198443.43		107570644.43

**Mission Mode Project on sugar production Technology**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR**  
**THE PERIOD/YEAR ENDED 31.03.2006**

(Amount – Rs.)

<b>SCHEDULE 12 - INCOME FROM SALES /SERVICES</b>	<b>Current Year</b>	<b>Previous Year</b>
<p>1. <u>Income from Sales</u></p> <p style="margin-left: 20px;">a) Sale of finished Goods                    }</p> <p style="margin-left: 20px;">b) Sale of Raw Material                        }</p> <p style="margin-left: 20px;">c) Sale of Scraps                                }</p> <p>2. <u>Income from Services</u></p> <p style="margin-left: 20px;">a) Labour and Processing Charges            }</p> <p style="margin-left: 20px;">b) Professional/Consultancy Services        }</p> <p style="margin-left: 20px;">c) Agency Commissions and Brokerage        }</p> <p style="margin-left: 20px;">d) Maintenance Services (Equipment/Property) }</p> <p style="margin-left: 20px;">e) Others (Specify)                                }</p>	.....NIL.....	.....NIL.....
<b>TOTAL</b>		

<b>SCHEDULE 13 - GRANTS/SUBSIDIES</b> (Irrevocable Grants & Subsidies Received)	<b>Current Year</b>	<b>Previous Year</b>
<p>1. Central Government</p> <p>2. State Government(s)</p> <p>3. Government Agencies</p> <p>4. Institutions/Welfare Bodies</p> <p>5. International Organisations</p> <p>6. Others (Specify)</p>	.....NIL.....	.....NIL.....
<b>TOTAL</b>	.....NIL.....	.....NIL.....

**Mission Mode Project on sugar production Technology**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR**  
**THE PERIOD/YEAR ENDED 31.03.2006**

(Amount – Rs.)

<b>SCHEDULE 14 - FEES/SUBSCRIPTIONS</b>	Current Year	Previous Year
1. Entrance Fees	--	
2. Annual Fees/Subscriptions	—	.....NIL.....
3. Seminar/Program Fees	—	
4. Consultancy Fees	100000.00	
5. Others (Specify)	—	
<b>TOTAL</b>	<b>100000.00</b>	
<b>Note - Accounting Policies towards each item are to be disclosed</b>		

<b>SCHEDULE 5 - 15 - INCOME FROM INVESTMENTS</b> (Income on Invest. From Earmarked/Endowment Funds transferred to Funds)	Investment from Earmarked Fund		Investment - Others	
	Current Year	Previous Year	Current Year	Previous Year
1. Interest				
a) On Govt. Securities				
b) Other Bonds/Debentures				
2. Dividends:				
a) On Shares	.....NIL.....	.....NIL.....	.....NIL.....	.....NIL.....
b) On Mutual Fund Securities				
3. Rents				
4. Others (Specify)				
<b>TOTAL</b>				
<b>TRANSFERRED TO EARMARKED/ENDOWMENT FUNDS</b>				

**Sugar Technology Mission**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR**  
**THE PERIOD/YEAR ENDED 31.03.2006**

(Amount – Rs.)

SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ETC.	Current Year	Previous Year
1. Income from Royalty		
2. Income from Publications		
3. Others (Specify) (Other receipts)	4920.00	3600.00
<b>TOTAL</b>	<b>4920.00</b>	<b>3600.00</b>

SCHEDULE 17 - IINTEREST EARNED	Current Year	Previous Year
1. On Term Deposits:		
a) With Scheduled Banks	2635401.00	0.00
b) With Non-Scheduled Banks	0.00	.....
c) With Institutions	0.00	.....
d) Others - Flexi Account	3315904.00	4247957.00
2. On Savings Accounts:		
a) With Scheduled Banks	559969.00	290188.00
b) With Non-Scheduled Banks	0.00	.....
c) Post Office Savings Accounts	0.00	.....
d) Others	0.00	
3. On Loans:		
a) Employees/Staff	528.00	748.00
b) Others		
4. Interest from Debtors and Other Receivables (Interest on Refund from projects)	760000.00	0.00
<b>TOTAL</b>	<b>7271802.00</b>	<b>4538893.00</b>

Note - Tax deducted at source to be indicated



**Sugar Technology Mission**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE**  
**FOR THE PERIOD/YEAR ENDED 31.03.2006**

(Amount – Rs.)

SCHEDULE 18 - INCOME FROM ROYALTY, PUBLICATION ETC.	Current Year	Previous Year
1. Profit on Sale/disposal of Assets		
a) Owned assets		
b) Assets acquired out of grants, or received free of cost		
2. Export Incentives realized		
3. Fees for Miscellaneous Services (Preparation of project report)	600000.00	2,00,000.00
4. Miscellaneous Income ( Refund from projects principal amount) (As per Annexure - A)	3515000.00	11295000.00
<b>TOTAL</b>	<b>4115000.00</b>	<b>11495000.00</b>

SCHEDULE 19 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS	Current Year	Previous Year
a). Closing stock		
- Finished Goods		
- Work-in-progress		
b) Less: Opening Stock		
- Finished Goods		
- Work -in -progress		
	.....NIL.....	.....NIL.....
<b>NET INCREASE/(DECREASE) [ a-b]</b>		

SCHEDULE 20 - IESTABLISHMENT EXPENSES	Current Year	Previous Year
a) Salaries and Wages	1766746.00	2193268.00
b) Allowances and Bonus	7401.00	8599.00
c) Contribution to Provident Fund	296028.00	100017.00
d) Contribution to Other Fund (specify)	0.00	0.00
e) Staff Welfare Expenses	0.00	0.00
f) Expenses on Employees' Retirement and Terminal Benefits	305985.00	0.00
g) Others (Specify) (i) Honararium	4500.00	15500.00
(ii) Medical Reimbursement	47261.00	101683.00
(iii) LTC	194663.00	181053.00
<b>TOTAL</b>	<b>2622584.00</b>	<b>2600120.00</b>

**Mission Mode Project on sugar production Technology**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE**  
**FOR THE PERIOD/YEAR ENDED 31.03.2006**

(Amount – Rs.)

SCHEDULE 21 - ADMINISTRATIVE EXPENSES ETC.	Current Year	Previous Year
a) Purchases	-----	-----
b) Labour and processing expenses	-----	-----
c) Cartage and Carriage Inwards	-----	-----
d) Electricity and power	-----	-----
e) Water charges	-----	-----
f) Insurance	-----	-----
g) Repairs and maintenance	3151.00	18948.00
h) Excise Duty	-----	-----
i) Rent, Rates and Taxes	0.00	607246.00
j) Vehicles Running and Maintenance	191474.00	228277.00
k) Postage, Telephone and Communication Charges	148065.00	169292.00
l) Printing and Stationary	55522.00	197275.00
m) Travelling and Conveyance Expenses	333587.00	1082959.00
n) Expenses on Seminary/Workshops/Meeting	6146.00	43756.00
o) Subscription Expenses/Periodical & Magzines	21078.00	29841.00
p) Expenses on Fees	7002.00	0.00
q) Auditors Remuneration	0.00	12122.00
r) Hospitality Expenses	-----	-----
s) Professional Charges	-----	-----
t) Provision for Bad and Doubtful Debts/Advances	-----	-----
u) Irrecoverable Balances Written-off	-----	-----
v) Bank Charges	411.00	100.00
w) Freight and Forwarding /Expenses	-----	-----
x) Distribution Expenses	-----	-----
y) Advertisement and Publicity	24098.00	764353.00
z) Others (Specify)	30098.00	55908.00
1. Misc. Office Expenses	30098.00	55908.00
2. Project Expenses	0.00	34430.00
3. Consultancy Expenses	0.00	0.00
4. Patent	0.00	4475.00
<b>TOTAL</b>	<b>820632.00</b>	<b>3248982.00</b>

**Mission Mode Project on sugar production Technology  
SCHEDULES FORMING PART OF INCOME & EXPENDITURE  
FOR THE PERIOD/YEAR ENDED 31.03.2006**

(Amount – Rs.)

SCHEDULE 22 - EXPENDITURE ON GRANTS, SUBSIDIES PROJECT EXPENDITURE	Current Year	Previous Year
a) Grants given to Institutions/Organisations		
b) Subsidies given to Institutions/Organisations		
c) Others (As per Annexure-B) (Project expenditure of sugar mills.)	0.00	24925000.00
d) Honorarium for Consultancy Work (given to staff of TIFAC)		
<b>TOTAL</b>	<b>0.00</b>	<b>24925000.00</b>

SCHEDULE 23 - INTEREST	Current Year	Previous Year
a) On Fixed Loans		
b) On Other Loans (including Bank Charges)	00.00	4653.00
c) Others (Specify		
<b>TOTAL</b>	<b>00.00</b>	<b>4653.00</b>

**Mission Mode Project on sugar production Technology**  
**SCHEDULES FORMING PART OF ACCOUNTS FOR THE PERIOD ENDED 31.03.2006**

**SCHEDULE - 24**

ACCOUNTING POLICIES AND NOTES TO THE ACCOUNTS FOR THE YEAR ENDING 31ST MARCH, 2006	
<b>A) ACCOUNTING POLICIES</b>	
1.	The Mission had adopted Mercantile System of Accounting.
2.	Fixed Assets are shown at cost less depreciation
3.	Prior period and extra ordinary items and changes in accounting policies having material impact on the financial affairs of the Mission are disclosed.
4.	Depreciation has been calculated as per Income Tax Act, 1961
5.	Amounts released under various projects are accounted as expenditure for the year in which the same are released, irrespective of the fact that the amounts so released may not have been fully utilised towards the projects during the accounting year.
6.	The repayment of grant / assistance towards Sugar Technology Mission Project by the beneficiaries or contributions made by them towards development of technology as per conditions stated in agreements with them, are accounted for on receipt basis.
7.	All disbursements for projects are treated as expenditure and assets created, if any, out of the said disbursements to the project, are not accounted for as assets in the books.
8.	Contingent liabilities in respect of on-going Projects / Studies etc. are neither provided nor determined.
<b>B) NOTES TO THE ACCOUNTS</b>	
1.	Depreciation amount Rs.170289.00 has been provided during the financial year 2005-2006.
2.	The income tax liability if any will be provided in the books of account on the basis of actual payment of Income tax Department. (However TIFAC has been declared on SCIENTIFIC INSTITUTION FOR THE PURPOSE).
3.	Amount due from beneficiaries of contributions as on 31.03.2006 was Rs. 140/-lacs, it has not been considered in the books of Accounts, out of which Rs. 168/- lacs is overdue as on 31.03.2006.

4.	Necessary Provision has been made for the following Expenses	
	Salary	136250.00
	Audit Fees	12122.00
	Telephone Expenses	9706.00
	Car Hire Charges	30238.00
5	Previous year figures have been regrouped wherever necessary to make them comparable with current figures.	

for RAKESH RAJ & ASSOCIATES  
Chartered Accountants

Sd/-  
ASHWANI TANEJA  
(PARTNER)

Sd/-  
ACCOUNTS OFFICER

Sd/-  
REGISTRAR

Sd/-  
MISSION DIRECTOR

Date : 13 November 2006  
Place : New Delhi

**Mission Mode Project on sugar production Technology**  
**SCHEDULES FORMING PART OF ACCOUNTS FOR THE PERIOD ENDED 31.03.2006**

SCHEDULE 25 - CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS (Illustrative)

1. CONTINGENT LIABILITIES

- 1.1. Claims against the Entity not acknowledged as debts - Rs. \_\_\_\_\_NIL\_\_\_\_\_ (Previous year Rs. Rs. \_\_\_\_\_NIL\_\_\_\_\_ )
- 1.2. In respect of
- Bank guarantees given by/on behalf of the Entity - Rs. Rs. \_\_\_\_\_NIL\_\_\_\_\_ (Previous year Rs. Rs. \_\_\_\_\_NIL\_\_\_\_\_ )
  - Letters of Credit opened by Bank on behalf of the Entity - Rs. \_\_\_\_\_NIL\_\_\_\_\_ (Previous year Rs. \_\_\_\_\_NIL\_\_\_\_\_ )
  - Bills discounted with banks Rs. \_\_\_\_\_NIL\_\_\_\_\_ (Previous year Rs. \_\_\_\_\_NIL\_\_\_\_\_ )
- 1.3. Disputed demands in respect of :
- Income-tax Rs. Rs. \_\_\_\_\_NIL\_\_\_\_\_ (Previous year Rs. Rs. \_\_\_\_\_NIL\_\_\_\_\_ )
- Sales-tax Rs. Rs. \_\_\_\_\_NIL\_\_\_\_\_ (Previous year Rs. Rs. \_\_\_\_\_NIL\_\_\_\_\_ )
- Municipal Taxes Rs. Rs. \_\_\_\_\_NIL\_\_\_\_\_ (Previous year Rs. Rs. \_\_\_\_\_NIL\_\_\_\_\_ )
- 1.4. In respect of claims from parties for non-execution of orders, but contested by the Entity - Rs. \_\_\_\_\_NIL\_\_\_\_\_ (Previous year Rs. \_\_\_\_\_NIL\_\_\_\_\_ )

2. CAPITAL COMMITMENTS

Estimated value of contracts remaining to be executed on capital account and not provided for (net of advances)  
 Rs. Rs. \_\_\_\_\_NIL\_\_\_\_\_ (Previous year Rs. Rs. \_\_\_\_\_NIL\_\_\_\_\_ )

3. LEASE OBLIGATIONS

Future obligations for rentals under finance lease arrangements for plant and machinery amount to Rs. Rs. \_\_\_\_\_NIL\_\_\_\_\_ (Previous year Rs. Rs. \_\_\_\_\_NIL\_\_\_\_\_ )

4. CURRENT ASSETS, LOANS AND ADVANCES

In the opinion of the Management, the current assets, loans and advances have a value on realization in the ordinary course of business, equal at least to the aggregate amount shown in the Balance Sheet.

5. TAXATION

In view of there being no taxable income under Income-tax Act 1961, no provision for Income Tax has been considered necessary.

**Mission Mode Project on sugar production Technology**  
**SCHEDULES FORMING PART OF ACCOUNTS FOR THE PERIOD ENDED 31.03.2006**

SCHEDULE 25 - CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS (Illustrative) - Contd.

	(Amount-Rs.)	
6. FOREIGN CURRENCY TRANSACTIONS	Current Year	Previous Year
6.1. <u>Value of Imports Calculated on C.I.F. Basis:</u>		
- Purchase of finished Goods	N.A.	N.A.
- Raw Materials & Components (Including in transit)	N.A.	N.A.
- Capital Goods	N.A.	N.A.
- Stores, Spares and Consumables	N.A.	N.A.
6.2. <u>Expenditure in foreign currency:</u>		
a) Travel	N.A.	N.A.
b) Remittances and Interest payment to Financial Institutions/ Banks in Foreign Currency	N.A.	N.A.
c) <u>Other expenditure:</u>		
- Commission on Sale	N.A.	N.A.
- Legal and Professional Expenses	N.A.	N.A.
- Miscellaneous Expenses	N.A.	N.A.
6.3. <u>Earnings:</u>		
Value of Exports on FO basis	N.A.	N.A.
6.4. <u>Remuneration to auditors:</u>		
As Auditors		
- taxation matters		
- For Management services		
- For certification	12122.00	12122.00
Others		
7. Corresponding figures for the previous year have been regrouped/rearranged, wherever necessary.		
8. Schedules 1 to 25 are annexed to and form an integral part of the Balance Sheet as at 31.03.2006 and the Income and Expenditure Account for the year ended on that date		



**Mission Mode Project on Sugar Production Technology**  
**RECEIPTS AND PAYMENTS FOR THE PERIOD/YEAR ENDED 31.03.2006**

Receipts	Current Year	Previous Year	Payment	Current Year	Previous Year
I. <u>Opening Balance</u>			I. <u>Expenses</u>		
a) Cash in hand	2169.00	63.00	a) Establishment Expenses (corresponding to Schedule 20) less Expenses payable	2486334.00	2418757.00
b) Bank Balances			b) Administrative Expenses (corresponding to Schedule 21) less Expenses payable	783554.00	2921719.00
i) In current accounts	NIL	NIL	c) TDS deducted & deposit on expense	0.00	0.00
ii) In deposit accounts	50000000.43	730278.43	II. <u>Payments made against funds for various Projects</u> (Name of the fund or project should be shown along with the particulars of payments made for each project) (As per Annexure-C) (As per Annexure E)	0.00	24925000.00
iii) Savings accounts	12034367.00	4835960.00		4052698.00	5174180.00
iv) Flexi accounts	45514983.00	112067026.0	III <u>Investments and deposits made</u>		
II. <u>Grants Received</u>			a) Out of Earmarked / Endowment funds		.....
a) From Government of India			b) Out of Own Funds (Investments-Others)		.....
b) From State Government		.....	IV <u>Expenditure on Fixed Assets &amp; Capital Work in Progress</u>		
c) From other sources (Implimentation Programme-Fiji Sugar Industries)( Grants for capita & revenue exp. To be shown separately).	0.00	9739111.00	a) Purchase of Fixed Assets	43667	94200.00
d) Amount received from TIFAC	0.00	0.00	b) Expenditure on Capital Work-n-progress		
III. <u>Income on Investments From</u>					
a) Earmarked /Endow,Funds.					
b) Own Funds (Oth. Investment					
IV <u>Interest Received</u>					
a) On Bank deposits	3195370.00	290188.00			
b) Loans, Advances etc	528.00	748.00			

V) <u>Other Income (Specify)</u>			V) <u>Refund of surplus money/</u>		
- Refunds from projects	3515000.00	11295000.00	<u>Loans</u>		
- Interest of refunds from projects.	760000.00	0.00	a) To the Government of India		.....
- Earnest Money received (As per Annexure)		0.00	b) To the State Government		.....
- Consultancy	100000.00	0.00	c) To other providers of funds		.....
- Interest Accrued on Flexi Bond	3315904.00	4247957	d) Advance Paid to staff	50000.00	10000.00
- Fees for Misc. Services	600000.00	200000.00	VI Finance Charges (Interest)	0.00	0.00
VI. <u>Amount Borrowed</u>			VII Other Payments (Specify)	240969.00	.....
VII. <u>Any other receipts (give Details)</u>			(Payment to sundry creditors TIFAC)		
- Earnest Money	0.00	0.00	TDS	.....	.....
- Staff loan recovery	10000.00	8500.00	Payment of Security deposit	0.00	0.00
- Other receipts	.....	.....	Expenses payable of 2003-04 paid	256701.00	327024.00
- Security with MTNL	.....	.....	VIII <u>Closing Balance</u>		
- Security Deposit			a) Cash in hand	406.00	2169.00
- Matrix Power Products	.....	.....	b) Bank Balance		
- Miscellaneous Income	4920.00	3600.00	i) In current accounts	NIL	NIL
- Prime Minister's Relief Fund	0.00	3968	ii) In deposit accounts (Short term Deposited)	50158219.00	50000000.43
			iii) Savings accounts	12149806.00	12034367.00
			iv) Flexi Deposit	48830887.00	45514983.00
<b>TOTAL</b>	<b>119053241.43</b>	<b>143422399.43</b>	<b>TOTAL</b>	<b>119053241-43</b>	<b>143422399.43</b>

for RAKESH RAJ & ASSOCIATES  
Chartered Accountants

Sd/-  
ASHWANI TANEJA  
(PARTNER)

Sd/-  
ACCOUNTS OFFICER

Sd/-  
REGISTRAR

Sd/-  
MISSION DIRECTOR

Date : 13 November 2006  
Place : New Delhi

# Annexure-C

## SECURITIES/EARNEST MONEY RECEIVED

Particulars	Current Year As on 31.03.2006
M/s Upper Doab Sugar Mills, Shamli	100000.00
M/s Sakthi Sugars Ltd. , TN.	100000.00
M/s Pratappur Sugar Industry Ltd.	100000.00
M/s RBN Sugar Mills	100000.00
M/s L.H. Sugar	100000.00
M/s Riga Sugar	100000.00
M/s Jind Coop-Sugar	100000.00
M/s Vishnu Sugar Ltd.	100000.00
M/s DSM Sugar	100000.00
M/s Valsad Sugar	100000.00
M/s Budhewal Co op.	100000.00
M/s Palwal Sugar Ltd.	100000.00
M/s Godawari Sugar Mill	100000.00
M/s Padamashri Dr. Vithalrao Vikho Patil SSK Ltd.	100000.00
M/s Mawana Sugar	100000.00
M/s EID Parry, Pugalur	100000.00
M/s Vishwas Rau Naik SSK Ltd.	100000.00
M/s Terna SSK Ltd.	100000.00
M/s Shakumbani Sugars Ltd.,	100000.00
M/s Shri Talabu Taluka SKM	100000.00
M/s Bileshwar khurd Udyog Khedut Sahakari Mandal Ltd.	100000.00
M/s Varalakshmi Sugar	100000.00
M/s Sanjivani SSK Ltd.	100000.00
M/s Rahuri S.S.K. Ltd.	100000.00
M/s Ashok SSK Ltd.	100000.00
M/s Simbhaoli Sugar	300000.00
M/s Jagadamba SSK	100000.00
M/s Rana Sugar Ltd.	100000.00
M/s Dharani Sugar & Chemical Ltd.,	100000.00
M/s Bharat Sugar Ltd.	100000.00
M/s Triveni Engg. Industries Ltd.	200000.00
M/s Uttam Sugars Ltd.	100000.00
M/s Chamundeswari Sugar Mill	200000.00
M/s Mansurpur sugar Mills	100000.00
<b>TOTAL</b>	<b>38,00,000.00</b>

## Annexure-A

### REFUND FROM PROJECTS (PRINCIPAL AMOUNT

Particulars	Current Year
E.R.P System (M/s The Godawari Sugar Mills Ltd.)	2040000.00
Distillery Effluent Treatment System (M/s The Ugar Sugar Works Ltd.)	1120000.00
Monitoring and Control System for Pan Boiling (M/s Ramgarh Chini Mills )	355000.00
	3515000.00

## Annexure-B

### Project Expenditure

Particulars	As on 31.03.2006
.....NIL.....	

## Annexure-D

### Expansés Payable

As on 31.03.2005	Particulars	As on 31.03.2006
181363.00	Salary	136250.00
50078.00	M/s Vishnu hospitality services	30238.00
4364.00	MTNL	2385.00
12122.00	M/s Rakesh Raj & Associates	12122.00
3328.00	M/s Kuani Travels	0.00
13702.00	M/s Symphony Travel (P) Ltd.	0.00
3866.00	M/s Bharti Tele- Ventures Ltd.	7321.00
<b>268823.00</b>		<b>188316.00</b>

## Annexure-E

### Implimentation Programme -Fiji Sugar Industries

As on 31.03.2005	Particulars	As on 31.03.2006
9739111.00	Grant Received	0.00
5174180.00	Expenditure	4052698.00
<b>4564931.00</b>	<b>Balance Amount</b>	<b>512233.00</b>

# Auditor's Report

The Members,  
Governing Body  
Fly Ash Consultancy Project - TIFAC,  
New Delhi - 110 016

We have audited the attached Balance Sheet of FLY ASH CONSULTANCY PROJECT- TIFAC, NEW DELHI as on 31st March 2006 and also the attached Income & Expenditure Accounts for the year ended on that date.

These financial statements are the responsibility of the management of the Fly Ash Consultancy Project -TIFAC. 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 the management, as well as evaluating the overall presentations of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

Subject to Notes on Account as per Schedule - 9

- 1) We have obtained all the information and explanation which to the best of our knowledge and belief were necessary for the purposes of our Audit.
  - 2) In our opinion proper books of account as required by law have been kept by Fly Ash Consultancy Project - TIFAC.
  - 3) The Balance Sheet and Income and Expenditure Accounts Dealt with by this report are in agreement with the books of Account.
  - 4) In our opinion and to the best of our information and according to the explanations given to us, the said accounts read with the schedules and notes thereto give the information required by Society Registration Act, in the manner so required and given a true and fair view.
- a) In case of Balance Sheet, of the state of affairs of the Fly Ash Consultancy Project - TIFAC as at 31st March 2006.
  - b) In case of Income & Expenditure Account, of the excess of income over expenditure for the accounting year ended on that date

for RAKESH RAJ & ASSOCIATES  
Chartered Accountants

Sd/-  
ASHWANI TANEJA  
(Partner)

DATE : 13th November 2006  
PLACE : NEW DELHI

**FLY ASH CONSULTANCY PROJECT TIFAC (DST)  
BALANCE SHEET AS ON 31.03.2006**

(Amount – Rs.)

LIABILITIES	Schedule	Current Year	Previous Year
Corpus/Capital Fund	1	1295304.50	2109105.50
Sundry Project Expenses Payable	2	11020.00	125976.00
Professional & Infrastructure Development & Institutional Charges		823568.00	823568.00
<b>Total</b>		<b>2129892.50</b>	<b>3058649.50</b>
<b>ASSETS</b>			
Short Term Deposit	3	22970.00	1788254.00
Union Bank of India		1705384.00	1196958.00
Cash in hand		12983.00	8116.00
Computers/Periferials		130520.00	61096.00
Office Equipment		64722.50	4225.50
Adv Tour : Dr.Vimal Kumar		193313.00	0.00
<b>Total</b>		<b>2129892.50</b>	<b>3058649.50</b>
Significant Accounting Policies & Notes to the Accounts	9		

As per our report of even date

for RAKESH RAJ & ASSOCIATES  
Chartered Accountants

Sd/-  
ASHWANI TANEJA  
(PARTNER)

Sd/-  
REGISTRAR  
TIFAC

Sd/-  
ACCOUNTS OFFICER  
TIFAC

Date : 13th November 2006  
Place : New Delhi

**FLY ASH CONSULTANCY PROJECT TIFAC (DST)**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2006**

(Amount – Rs.)

INCOME	Schedule	Current Year	Previous Year
Consultancy Charges	4	2173730.00	3393798.00
Interest from Bank (Savings)	5	91307.00	41729.00
Interest from Bank (Short Term Deposit)	6	17664.00	116145.00
Other Income (Traveling Reimbursement)		0.00	0.00
Heavy Water Plant Manuguru (Minefield)			
<b>INCOME TOTAL</b>		<b>2282701.00</b>	<b>3551672.00</b>
<b>EXPENDITURE</b>			
Project Expenses	7	2923532.00	2886409.00
Sundry Project Expenses		0.00	120466.00
Overhead/Project Management		0.00	7800.00
Depreciation		172970.00	92113.50
<b>EXPENDITURE TOTAL</b>		<b>3096502.00</b>	<b>3106788.50</b>
Excess of Income over Expenditure			444883.50
Excess of Expenditure over Income		813801.00	

Balance being Surplus transferred to Corpus/Capital Fund

444883.50

Balance being Deficit transferred to Corpus/Capital Fund

(-) 813801.00

As per our report of even date

for RAKESH RAJ & ASSOCIATES  
Chartered Accountants

Sd/-  
ASHWANI TANEJA  
(PARTNER)

Sd/-  
REGISTRAR  
TIFAC

Sd/-  
ACCOUNTS OFFICER  
TIFAC

Date : 13th November 2006  
Place : New Delhi



**FLY ASH CONSULTANCY PROJECT TIFAC (DST)**  
**SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

SCHEDULE 1 - CORPUS/CAPITAL FUND	Current Year	Previous Year
Balance at the Beginning of the year	2109105.50	2286590.00
Add : Contributions towards Corpus/Capital Fund		0.00
Add/(Deduct) : Balance of net income/expenditure transferred from the Income & Expenditure Account	(813801.00)	444883.50
Less : Excess Expenditure over Income	0.00	0.00
Less: Professional & Infrastructure Development & Institutional Charges and Service Tax (deducted from Capital)	0.00	622368.00
<b>TOTAL</b>	<b>1295304.50</b>	<b>2109105.50</b>

SCHEDULE 2 - SUNDRY PROJECT EXPENSES PAYABLE	Current Year	Previous Year
Ammonia Dozing of Fly Ash From HWB Mumbai	0.00	114956.00
M/s Bansal R.Kumar and Associates	0.00	5510.00
M/s Rakesh Raj & Associates	11020.00	5510.00
<b>TOTAL</b>	<b>11020.00</b>	<b>125976.00</b>

SCHEDULE 3 - SHORT TERM DEPOSIT	Current Year	Previous Year
Perspective R&D Plan for Fly Ash	0.00	900589.00
Ammonia Dozing of Fly Ash HWB, Mumbai.	12543.00	337619.00
Preparation & Publication of Mannuals/Guidelines Documents for user Fly Ash.	10427.00	328151.00
Consultancy Assignment UPRVUNL	0.00	112527.00
Consultancy Assignment Road Construction	0.00	109368.00
<b>TOTAL</b>	<b>22970.00</b>	<b>1788254.00</b>

SCHEDULE 4 - CONSULTANCY CHARGES	Current Year	Previous Year
Ammonia Dozing of Fly Ash HWB, Mumbai	0.00	612591.00
Preparation & Publication of Manuals/Guidelines Documents for user Fly Ash	0.00	430000.00
Heavy Water Plant, Manuguru (Minefield)	493856.00	0.00
Consultancy Assignment Thermal Power Plant at Parichha, UP	1454002.00	284610.00
Consultancy Assignment on Dry Fly Ash Transportation & Disposal System at BSES	0.00	309599.00
Evaluation of Ammonia Dozed Fly Ash for Agriculture Applications	0.00	131125.00
Training Programme of Clay Fly Ash Brick Manufacturing (Bathinda, Ropar, Hoashurpur)	0.00	324000.00
Consultancy Assignment IPGNCO Workshop & film Shooting of IPGNCO	0.00	719400.00
Consultancy Assignment Engineering Design for the Liner System Including Leaches Collection for Paricha	168872.00	282473.00
Consultancy Assignment Training Programme for Clay Fly Ash Brick Manufacture (Nagupr)	57000.00	300000.00
<b>TOTAL</b>	<b>2173730.00</b>	<b>3393798.00</b>

SCHEDULE 5 - INTEREST FROM BANK (SAVINGS)	Current Year	Previous Year
Perspective R&D Plan for Fly Ash	13790.00	6127.00
Ammonia Dozing of Fly Ash HWB, Mumbai	7227.00	3128.00
Preparation & Publication of Manuals/Guidelines Documents for user Fly Ash	6970.00	3009.00
Training Programme of Clay Fly Ash Bricks Manufacturing (Faridabad)	3331.00	1347.00
Consultancy Assignment DVB	6129.00	2625.00
Consultancy Assignment UPRVUNL	4342.00	1809.00
Consultancy Assignment Road Construction	9205.00	4028.00
Heavy Water Plant, Manuguru (Minefield)	6990.00	3019.00
Consultancy Assignment Thermal Power Plant at Parichha, UP	7729.00	3356.00
Consultancy Assignment on Dry Fly Ash Transportation & Disposal System at BSES	6965.00	3008.00
Evaluation of Ammonia Dozed Fly Ash for Agriculture Applications	5015.00	2117.00
Heavy Water Board - Mumbai (Agriculture)	5906.00	2524.00
Separate Collection of Bottom Ash optimisation of slurry disposal systems & Agriculture Application of Pond Ash.	3943.00	1627.00
Consultancy Assignment Training Programme of Clay Fly Ash Brick Manufacturing (NTPC) (UNCHAHAR)	753.00	801.00
Consultancy Assignment Training Programme of Clay Fly Ash Brick Manufacturing (Bathinda, Rugar & Hosharpur)	753.00	801.00
Consultancy Assignment IPGNCO Workshop & Film Shooting of IPGNCO	753.00	801.00
Consultancy Assignment Engineering Design for the Liner System including Leaches collection for Paricha	753.00	801.00
Consultancy Assignment Training Programme for Clay Fly Ash Brick Manufacturing (Nagpur)	753.00	801.00
<b>TOTAL</b>	<b>91307.00</b>	<b>41729.00</b>

SCHEDULE 6 - INTEREST FROM BANK (SHORT TERM DEPOSIT)	Current Year	Previous Year
Perspective R&D Plan for Fly	8899.00	61488.00
Ammonia Dozing of Fly Ash from HWB, Mumbai	3337.00	22957.00
Preparation & Publicatoin of Manual/Guidelines/Documents for user Fly Ash	780.00	18055.00
Consultancy Assignment UPRVUNL	1680.00	7640.00
Consultancy Assignment Road Construction	2968.00	6005.00
<b>TOTAL</b>	<b>17664.00</b>	<b>116145.00</b>

SCHEDULE 7 - PROJECT EXPENSES	Current Year	Previous Year
Perspective R&D Plan for Fly Ash	8531.00	363725.00
Ammonia Dozing of Fly Ash HWB, Mumbai.	0.00	182450.00
Preparation & Publication of Manuals/Guidelines Documents for user Fly Ash.	11084.00	221531.00
Consultancy Assignment DVB	0.00	51069.00
Consultancy Assignment UPRVUNL	0.00	128678.00
Heavy Water Plant, Manuguru (Minefield)	390700.00	211.00
Consultancy Assignment Thermal Power Plant at Parichha U.P	2032593.00	423192.00
Consultancy Assignment on Dry Fly Ash Transportation & Disposal System at BSES	0.00	341407.00
Evaluation of Ammonia Dozed Fly Ash for Agriculture Application.	0.00	96000.00
Consultancy Assignment Road Construction	0.00	22092.00
Training Programme of Clay Fly Ash Brick Manufacture (NTPC) (UNCHA HAR)	30000.00	3081.00
Separate Collection of Bottom Ash Optimisation of Slurry	0.00	35261.00
Disposal System & Agriculture Application.		
Training Programme of Clay Fly Ash Brick Manufacturing	70000.00	75000.00
(Bathinda, Purar & Hoshurpur)		
IPGNCO Workshop Film Shooting of IPGNCO	375800.00	80000.00
Engineering Design for the Liner System Including Leaches Collection for Paricha	0.00	150000.00
Training Programme for Clay Fly Ash Brick Manufacturing (Nagpur)	4824.00	371310.00
Perspective R&D Plan for Fly Ash RCC	0.00	341402.00
<b>TOTAL</b>	<b>2923532.00</b>	<b>2886409.00</b>

**FLY ASH CONSULTANCY PROJECT, TIFAC (DST)**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

SCHEDULE 8-FIXED ASSETS OF DESCRIPTION	GROSS BLOCK				DEPRECIATION				NET BLOCK	
	Cost / valuation As at beginning of the year	Additions during the year	Deduct- ions during the year	Cost / valuation at the year end	As at the beginning of the year	On Deductions during the year	Total upto the year end	Total upto the year end	As at the current year end	As at the previous year end
A. FIXED ASSETS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1. a) Freehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
b) Leasehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. BUILDING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
a) On Freehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
b) On Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
c) Ownership Flats/Premises	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d) Superstructures on Land not belonging to the entity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. PLANT MACHINERY & EQUIPMENT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4. VEHICLES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5. FURNITURE & FIXTURES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6. OFFICE EQUIPMENT	4695.00	67688.00	0.00	72383.00	469.50	7191.00	0.00	7660.50	64722.50	4225.50
7. COMPUTER/PERIPHERALS	152740.00	235203.00	0.00	387943.00	91644.00	165779.00	0.00	257423.00	130520.00	61096.00
8. ELECTRIC INSTALLATIONS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9. LIBRARY BOOKS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10. TUBEWELL & W.SUPPLY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11. OTHER FIXED ASSETS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL OF CURRENT YEAR</b>	<b>157435.00</b>	<b>302891.00</b>	<b>0.00</b>	<b>460326.00</b>	<b>92113.50</b>	<b>172970.00</b>	<b>0.00</b>	<b>265083.50</b>	<b>195242.50</b>	<b>65321.50</b>
<b>PREVIOUS YEAR</b>	<b>0.00</b>	<b>157435.00</b>	<b>0.00</b>	<b>157435.00</b>	<b>0.00</b>	<b>92113.50</b>	<b>0.00</b>	<b>92113.50</b>		
<b>B. CAPITAL WORK IN PROGRESS</b>										
<b>Cost of Assets on hire purchase basis included above</b>										

**Fly Ash Consultancy Project - TIFAC**  
**Schedules Forming Part of Accounts from the Period Ended 31.03.2006**

SCHEDULE 9

	Accounting Policies and Notes to the Accounts for the Year Ending 31.03.2006	
A)	Accounting Policies	
1.	Fly Ash Consultancy Project had adopted Mercantile System of Accounting.	
2.	Amounts released under various Project are accounting as expenditure for the year in which the same are released, irrespective of the fact that the amounts so released may not have been fully utilized towards the projects during the accounting year.	
3.	Unspent amount of grant received during the year for specific purposes is earmarked and carried forward to next year to the utilized for the said purposes.	
B)	Notes to the Accounts	
1.	Necessary Provision has been made for the following Expenses	
	Audit Fee	(for 2 years) Rs. 11020.00
2.	Depreciation amount Rs.172970/- has been provided during the financial year 2005-2006.	

for RAKESH RAJ & ASSOCIATES  
Chartered Accountants

Sd/-  
ASHWANI TANEJA  
(PARTNER)

Sd/-  
REGISTRAR  
TIFAC

Sd/-  
ACCOUNTS OFFICER  
TIFAC

Date : 13th November 2006  
Place : New Delhi

## Auditor's Report

The Trustees,  
TIFAC C.P. Fund Trust,  
New Delhi - 110 016

We have audited the attached Statement of Affairs of TIFAC C.P Fund Trust as on 31st March 2006 with the books of accounts maintained at New Delhi. The Compliance of the provision of Provident Fund and Miscellaneous Provision Account has also been examined.

On the basis of such examination of the books of accounts, we state that subject to comments given as per notes of account as per point no.1.

1. The statement of Affairs dealt with by this report are in agreement with the books of accounts of the Trust.
2. In our opinion and to the best of our information and according to explanation given to us, the said accounts give a true and fair view.
  - a) In the case of statement of Affairs, the state of the affairs of the Trust as at 31st March 2006.

For Rakesh Raj & Associates  
Chartered Accountants

Sd/-  
Ashwani Taneja  
(Partners)

Date : 13<sup>th</sup> November 2006  
Place : New Delhi



# Contributory Provident Fund- TIFAC

Statement of Affairs as on 31st March, 2006

Previous Year as on 31.03.2005	Particulars	Current Year as on 31.03.2006	Previous Year as as 31.03.2005	Particulars	Current Year as on 31.03.2006
5466374.70	Interest Accrued Last Balance	6045008.70	3204144.54	Balance with UBI	2347837.54
	Add: Received during the year		520330.00	<b>Deposits</b>	
<u>579075.00</u>	Accrued during the year	<u>882153.00</u>	14833017.00	Special depsoit with RBI	520330.00
6045449.70		6927161.70		Short Term deposit with UBI	18581501.00
<u>441.00</u>	Less: Paid during the year	<u>28024.00</u>	6899137.70	<b>Loan/ Advances to staff members</b>	
6045008.70			31571.00	Shri Anil Kumar Rai	38193.00
	<b>Employees Contribution</b>		86150.00	Shri Arghya Sardar	51710.00
7323341.84	Last Balance	9457057.84	35000.00	Shri Atul Mittal	35000.00
3108574.00	Add: Received during the year	3158801.00	9000.00	Ms. Sreedevi N.	75000.00
			0.00	Mrs. Sangeeta Talwar	42000.00
<u>974858.00</u>	Less: Paid during the year	<u>2382213.00</u>	5200.00	Sh. M. Thamaraiselvan	
9457057.84		10233645.84	30400.00	Sh. Suresh Somanchi	23680.00
			23600.00	Mrs. Mala Sarpal	
	<b>TIFAC Contribution</b>		19200.00	Mrs. Promila Khilnani	2400.00
2823889.00	Last Balance	3565806.00	6000.00	Ms. Mini K.K.	21000.00
741917.00	Add: Received during the year	1842007.00	36000.00	Sh. Yashwant Dev Panwar	
			49000.00	Ms. Geeta	13000.00
<u>3565806.00</u>	Less: Paid during the year	<u>415855.00</u>	13000.00	Sh. Mahipal Singh Rawat	35880.00
		4991958.00	18000.00	Dr. Gautam Goswami	6000.00
			23360.00	Dr. T. Chakradhar	11720.00
			16900.00	Mrs. Mercy James	8800.00
			12600.00	Sh. Ravi Dutt	2520.00
			8000.00	Sh. Samson George	83200.00
			72000.00	Sh. A. Parida	38400.00
			8000.00	Dr. P. K. Anil Kumar	19500.00
			7400.00	Sh. Shambhu Kumar	
				Sh. N.S. Nair	9000.00
				Ms. Jyoti Saklani	25750.00
				Ms. Geeta Nair	16800.00
				Ms. Anita Nair	33760.00
				Sh. Surender Prasad	57760.00
				Sh. Rajan Sharma	24000.00
19067872.54	<b>Total</b>	22124741.54	19067872.54	<b>Total</b>	22124741.54

For RAKESH RAJ & ASSOCIATES  
Chartered Accountants

Sd/-  
Ashwani Taneja  
(Partner)  
Date: 13.11.2006  
Place: New Delhi

Sd/-  
Chairman

Sd/-  
Trustee

## Contributory Provident Fund- TIFAC Trial Balance as on 31st March, 2006

S.No.	PARTICULARS	FOLIO	DEBIT AMOUNT	CREDIT AMOUNT
1	EMPLOYEES SUBSCRIPTION A/C	GE0001		1,02,33,645.84
2	EMPLOYER'S CONTRIBUTION A/C	GE0002		49,91,958.00
3	INTEREST A/C	GI0001		68,99,137.70
4	CPF ADV: SHRI ANIL KUMAR RAI	GC0001	38,193.00	
5	CPF ADV: SHRI ARGHYA SARDAR	GC0002	51,710.00	
6	CPF ADV: SHRI ATUL MITTAL	GC0003	35,000.00	
7	CPF ADV: MS. SREEDEVI N.	GC0004	75,000.00	
8	CPF ADV: MS. PROMILA KHILNANI	GC0009	2,400.00	
9	CPF ADV: MS. MINI K.K.	GC0010	21,000.00	
10	CPF ADV: MS. GEETA	GC0012	13,000.00	
11	CPF ADV: SHRI MAHIPAL SINGH RAWAT	GC0013	35,880.00	
12	CPF ADV: DR. GAUTAM GOSWAMI	GC0014	6,000.00	
13	CPF ADV: DR. T. CHAKRADHAR	GC0015	11,720.00	
14	CPF ADV: MS. MERCY JAMES	GC0016	8,800.00	
15	CPF ADV: SHRI RAVI DUTT	GC0017	2,520.00	
16	CPF ADV: SH. SAMSON GEORGE	GC0018	83,200.00	
17	CPF ADV: DR. P.K. ANIL KUMAR	GC0019	19,500.00	
18	CPF ADV: SHRI N.S. NAIR	GC0021	9,000.00	
19	CPF ADV: MS. JYOTI SAKLANI	GC0022	25,750.00	
20	CPF ADV: MS. SANGEETA NAGAR	GC0023	42,000.00	
21	CPF ADV: MS. GEETA NAIR	GC0024	16,800.00	
22	CPF ADV: MS. ANITA NAIR	GC0025	33,760.00	
23	CPF ADV: SH. SURENDER PRASAD	GC0026	57,760.00	
24	CPF ADV: SHRI RAJAN SHARMA	GC0027	24,000.00	
25	CPF ADV: SH. SURESH SOMANCHI	GC0028	23,680.00	
26	CPF ADV: SH.A. PARIDA	GS0001	38,400.00	
27	SHORT TERM DEPOSIT (UBI)	GS0002	1,85,81,501.00	
28	SPECIAL DEPOSIT (RBI) A/C	GS0003	5,20,330.00	
29	CASH AT BANK	GU0001	23,47,837.54	
<b>Total</b>			<b>2,21,24,741.54</b>	<b>2,21,24,741.54</b>

For RAKESH RAJ & ASSOCIATES  
Chartered Accountants

Sd/-  
Ashwani Taneja  
(Partner)

Sd/-  
Chairman

Sd/-  
Trustee

Date: 13.11.2006  
Place: New Delhi

# Auditor's Report

The Members,  
National Mission on Bamboo Applications  
New Delhi - 110016

We have audited the attached Balance Sheet of National Mission on Bamboo Applications Under TECHNOLOGY INFORMATION, FORCASTING AND ASSESSMENT COUNCIL (TIFAC), NEW DELHI as on 31st March 2006 and also the attached Income & Expenditure Accounts for the year ended on that date.

These financial statements are the responsibility of the management of the National Mission on Bamboo Applications-TIFAC. 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 the management, as well as evaluating the overall presentations of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

Subject to our Audit objections as per Annexure AR-1, comments given in the following Notes on accounts as per schedule -24 &25, Note No B-1->Provision of Depreciation during the year, Note No.B-2 -> Non - Accounting of Stock of Publication of NMBA, Note No. B-4 -> Non-receipt of utilization statements in respect of grant utilized from the implementing agency in some cases, we report that :-

- 1) We have obtained all the information and explanation which to the best of our knowledge and belief were necessary for the purposes of our Audit.
- 2) In our opinion proper books of account as required by law have been kept by National Mission on Bamboo Application- TIFAC.
- 3) The Balance sheet and Income and Expenditure Accounts dealt with by this report are in agreement with the books of account.
- 4) In our opinion and to the best of our information and according to the explanations given to us, the said accounts read with the schedules and notes thereto given the information required by Society Registration Act, in the manner so required and given a true and fair view :-
  - a) In case of Balance Sheet , of the state of affair of the NMBA as at 31st March 2006.
  - b) In case of Income & Expenditure Account, of the excess of income over expenditure for the accounting year ended on that date.

for RAKESH RAJ & ASSOCIATES  
Chartered Accountants

DATE : 13<sup>th</sup> November 2006  
PLACE : NEW DELHI

Sd/-  
ASHWANI TANEJA  
(Partner)

## **Audit Observation**

- 1) It is observed that in few cases TDS has not been deducted from certain payment, management is required to take appropriate action for recovery of TDS from the parties wherever applicable.
- 2) An amount of Rs. 12,00,000/- has been received from Ministry of Textiles but such amount are not highlighted any where in the balance.
- 3) It is observed in the same cases that lower amount of tax has been deducted from the payments made on account of contractor/ consultants.
- 4) In some cases the payment exceeds Rs.20,000/- during the year but TDS has not been deducted which is required under Income Tax act 1961.

## National Mission on Bamboo Applications

### Reply to Audit Observation

- 1) Regarding observation no.1 , action in respect of deduction of TDS is already being taken, Hence the observation No.1 may kindly be dropped.
- 2) Regarding observation No.2, the receipt of an amount of Rs.12,00,000/- has been taken into account in schedule no.7 of the Balance Sheet of TIFAC for the financial year, 2004-2005, hence the same may be dropped.
- 3) Reference to audit query No.3 , regarding Short/less deduction of TDS, in this connection it is mentioned here that since the payment of the contractor/consultants was made as one time payment it is not possible to make the deductions of short TDS at this stage. Therefore, the observation No.3 may kindly be dropped.
- 4) Reference to the Audit Query No.4, regarding the deduction of TDS for the payment exceeding Rs.20,000/- is noted for implementation.

**National Mission on Bamboo Applications  
Technology Information, Forecasting & Assessment Council  
BALANCE SHEET AS ON 31.03.2006**

(Amount – Rs.)

CORPUS/CAPITAL FUND AND LIABILITIES	Schedule	Current Year	Previous Year
CORPUS /CAPITAL FUND	1	76624109.10	Previous Year figures are shown in TIFAC Balance Sheet Page No. 70
RESERVES AND SURPLUS	2	0.00	
EARMARKED/ ENDOWMENT FUNDS	3	0.00	
SECURED LOANS AND BORROWINGS	4	0.00	
UNSECURED LOANS AND BORROWINGS	5	0.00	
DEFERRED CREDIT LIABILITIES	6	0.00	
CURRENT LIABILITIES AND PROVISIONS	7	470756.00	
<b>TOTAL</b>		<b>77094865.10</b>	
<b>ASSETS</b>			
FIXED ASSETS (NET)	8	640239.00	
INVESTMENTS - FROM EARMARKED/ENDOWMENT FUNDS	9	0.00	
INVESTMENTS - OTHERS	10	0.00	
CURRENT ASSETS, LOANS, ADVANCES ETC.	11	73903827.10	
CAPITAL WORK IN PROGRESS. MISCELLANEOUS EXPENDITURE (To The extent not written off or adjusted)	11A	2550799.00	
<b>TOTAL</b>		<b>77094865.10</b>	
SIGNIFICANT ACCOUNTING POLICIES	24		
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	25		

for RAKESH RAJ & ASSOCIATES  
CHARTERED ACCOUNTANTS

-Sd-  
ASHWANI TANEJA  
(PARTNER)

-Sd-  
ACCOUNT OFFICER  
NMBA

-Sd-  
REGISTRAR  
NMBA

-Sd-  
MISSION DIRECTOR  
Head, NMBA

DATE: 13<sup>th</sup> November 2006  
PLACE: NEW DELHI

**T.I.F.A.C**  
**National Mission on Bamboo Applications**  
**Income and Expenditure Account For the Year Ended 31.03.2006**

(Amount – Rs.)

Income	Schedule Annexure	Current Year	Previous Year
Income From Sales / Services	Schedule 12	0.00	Previous Year figures are shown in Page No. 74 of Income and Expenditure of TIFAC
Grants/Subsidies	Schedule 13	208432545.60	
Fees / Subscriptions	Schedule 14	0.00	
Income From Investment	Schedule 15	0.00	
Income from Royalty, Publication Etc.	Schedule 16	472014.00	
Interest Earned	Schedule 17	1816938.50	
Other Income	Schedule 18	1311300.00	
Increase /Decrease in Stock of Finished Goods & Work in Progress	Schedule 19	0.00	
Refund from Projects & Others			
<b>Total (A)</b>		<b>212032798.10</b>	
Expenditure			Previous Year figures are shown in Page No. 74 of Income and Expenditure of TIFAC
Establishment Expenses	Schedule 20	4788208.00	
Other Administrative Expenses etc.	Schedule 21	12105491.00	
Expenditure on Grant ,Subsidies Etc.(Project Expenditures)	Schedule 22	118062778.00	
Interest	Schedule 23	0.00	
Depreciation on (Net Total at the Year end)	Schedule 08	452212.00	
<b>TOTAL</b>		<b>135408689.00</b>	
Balance being excess of Income over Expenditure (A-B)		76624109.10	
Balance being excess of Expenditure over Income (A-B)			
Balance being Surplus transferred to Corpus/Capital Fund		76624109.10	
Balance being Deficit transferred to Corpus/Capital Fund			

for RAKESH RAJ & ASSOCIATES  
 CHARTERED ACCOUNTANTS

-Sd-  
 ASHWANI TANEJA  
 (PARTNER)

-Sd-  
 ACCOUNT OFFICER  
 NMBA

-Sd-  
 REGISTRAR  
 NMBA

-Sd-  
 MISSION DIRECTOR  
 Head, NMBA

DATE: 13<sup>th</sup> November 2006  
 PLACE: NEW DELHI

**NATIONAL MISSION ON BAMBOO APPLICATIONS**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

**SCHEDULE 1 - CORPUS/CAPITAL FUND**

(Amount – Rs.)

		National Mission on Bamboo Applications Current Year Balance		National Mission on Bamboo Applications Previous Year Balance
Opening Balance		0.00		0.00
Amount of diff. in opening balance of fixed assets not taken for dep. In Tifac books of A/c from NMBA schedule		0.00		0.00
Excess of Income Over Expenditure		76624109.10		0.00
<b>Total</b>		<b>76624109.10</b>		<b>0.00</b>
Excess of Expenditure over Income		0.00		0.00
<b>Total</b>		<b>0.00</b>		<b>0.00</b>
Closing Balance		76624109.10		0.00



SCHEDULE 2 - RESERVE AND SURPLUS :	Current Year		Previous Year	
1. Capital Reserve :				
As per last Account		0.00		0.00
Addition during the year		0.00		0.00
Less : Deductions during the year		0.00		0.00
2. Revaluation Reserves :				
As per last Account		0.00		0.00
Addition during the year		0.00		0.00
Less : Deductions during the year		0.00		0.00
3. Special Reserve :				
As per last Account		0.00		0.00
Addition during the year		0.00		0.00
Less : Deductions during the year		0.00		0.00
4. General Reserve :				
As per last Account		0.00		0.00
Addition during the year		0.00		0.00
Less : Deductions during the year		0.00		0.00
<b>Total</b>		<b>0.00</b>		<b>0.00</b>

**NATIONAL MISSION ON BAMBOO APPLICATIONS**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

<b>SCHEDULE 3 - EARMARKED/ENDOWMENT FUNDS</b>	Current Year	Previous Year
a) Opening Balance of the funds	0.00	0.00
b) Additions to the Funds:		
i) Donations /grants	0.00	0.00
ii) Income from investments made on account of funds	0.00	0.00
iii) Other Additions (Specify)	0.00	0.00
<b>TOTAL (a+b)</b>	<b>0.00</b>	<b>0.00</b>
c) Utilization /Expenditure towards objectives of funds		
i) Capital Expenditure	0.00	0.00
Fixed Assets	0.00	0.00
Others	0.00	0.00
ii) Revenue Expenditure		
Salary, Wages and allowance etc	0.00	0.00
Rent	0.00	0.00
Other Administrative Expenses	0.00	0.00
<b>TOTAL (c)</b>	<b>0.00</b>	<b>0.00</b>
<b>Net Balance as at the year end (a + b– c)</b>	<b>0.00</b>	<b>0.00</b>
<p><b>Notes</b></p> <p>1) Disclosures shall be made under relevant Heads based on conditions attaching to the Grants.</p> <p>2) Plan Funds received from Central /State Governments are to be shown as separate Funds and not to be mixed up with any other Funds</p>		

**NATIONAL MISSION ON BAMBOO APPLICATIONS  
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

SCHEDULE 4 - SECURED LOANS AND BORROWINGS:	Current Year		Previous Year	
1. Central Government		0.00		0.00
2. State Government (Specify)		0.00		0.00
3. Financial Institutions				
a) Term Loans		0.00		0.00
b) Interest accrued and due		0.00		0.00
4. Banks:				
a) Term Loans		0.00		0.00
- Interest accrued and due		0.00		0.00
b) Other Loans (specify)		0.00		0.00
- Interest accrued and due		0.00		0.00
5. Other Institutions and Agencies		0.00		0.00
6. Debentures and Bonds		0.00		0.00
7. Others (Specify)		0.00		0.00
<b>Total</b>		<b>0.00</b>		<b>0.00</b>
<b>Note : Amounts due within one year</b>				

**NATIONAL MISSION ON BAMBOO APPLICATIONS  
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

SCHEDULE 5 -UNSECURED LOANS AND BORROWINGS:	Current Year		Previous Year	
	1. Central Government		0.00	
2. State Government (Specify)		0.00		0.00
3. Financial Institutions		0.00		0.00
4. Banks:				
a) Term Loans		0.00		0.00
b) Other Loans (specify)		0.00		0.00
5. Other Institutions and Agencies		0.00		0.00
6. Debentures and Bonds		0.00		0.00
7. Fixed Deposits		0.00		0.00
8. Others (Specify)		0.00		0.00
<b>Total</b>		<b>0.00</b>		<b>0.00</b>
Note : Amounts due within one year				

SCHEDULE 6 -DEFERRED CREDIT LIABILITIES	Current Year		Previous Year	
	a) Acceptances secured by hypothecation of Capital equipment and other assets		0.00	
b) Others		0.00		0.00
<b>Total</b>		<b>0.00</b>		<b>0.00</b>
Note : Amounts due within one year				

**NATIONAL MISSION ON BAMBOO APPLICATIONS**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

SCHEDULE 7 -CURRENT LIABILITIES AND PROVISIONS	Current Year		Previous Year	
<b>A. CURRENT LIABILITIES</b>				
1. Acceptances		0.00		0.00
2. Sundry Creditors:		0.00		0.00
a) For Goods		0.00		0.00
b) Others				
3. Advances Received		0.00		0.00
4. Interest accrued but not due on:				
a) Secured Loans/borrowings		0.00		0.00
b) Unsecured Loans /borrowings		0.00		0.00
5. Statutory Liabilities:				
a) Over dues		0.00		0.00
b) Others		0.00		0.00
6. Other current Liabilities				
a) Salary Payable		364008.00		0.00
b) Nominal Charges for Dissemination of TIFAC Report		0.00		0.00
c) Computer Advance:Sh.S.K.Pandey		0.00		0.00
d) Supply of Primary Bamboo Processing Machinery (Textile Machinery)(Handicraft)		0.00		0.00
e) Security Deposit :NG'S Designs Pvt. Ltd.		15000.00		0.00
f) TIFAC Expenses Payable		71748.00		0.00
g) Audit Fee Payable		20000.00		0.00

Total (A)		470756.00		0.00
<b>B. PROVISIONS</b>				
1. For Taxation		0.00		0.00
2. Gratuity		0.00		0.00
3. Superannuation /Pension		0.00		0.00
4. Accumulated Leave Encashment		0.00		0.00
5. Trade Warranties/Claims		0.00		0.00
6. Others (Specify)		0.00		0.00
<b>TOTAL (B)</b>		<b>0.00</b>		<b>0.00</b>
<b>TOTAL (A+B)</b>		<b>470756.00</b>		<b>0.00</b>

## NATIONAL MISSION ON BAMBOO APPLICATIONS

### SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006

(Amount – Rs.)

SCHEDULE 8- FIXED ASSETS OF DESCRIPTION	Cost / valuation As at beginning of the year	GROSS BLOCK			DEPRECIATION				NET BLOCK	
		Additions during the year	Deduct- ions during the year	Cost / valuation at the year end	As at the beginning of the year	On additions during the year	Total upto the year end	Total upto the year end	As at the current year end	As at the previous year end
A. FIXED ASSETS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1. a) Freehold		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
b) Leasehold		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. BUILDING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
a) On Freehold Land		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
b) On Leasehold Land		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
c) Ownership Flats/Premises		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d) Superstructures on Land not belonging to the entity		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. PLANT MACHINERY & EQUIPMENT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4. VEHICLES		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5. FURNITURE & FIXTURES		89445.00	0.00	89445.00	0.00	4772.00	0.00	4772.00	84673.00	0.00
6. OFFICE EQUIPMENT		93721.00	0.00	93721.00	0.00	13833.00	0.00	13833.00	79888.00	0.00
7. COMPUTER/PERIPHERALS		870800.00	0.00	870800.00	0.00	429454.00	0.00	429754.00	441346.00	0.00
8. ELECTRIC INSTALLATIONS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9. LIBRARY BOOKS		38485.00	0.00	38485.00	0.00	4153.00	0.00	4153.00	34332.00	0.00
10. TUBEWELL & W.SUPPLY		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11. OTHER FIXED ASSETS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL OF CURRENT YEAR</b>		<b>1092451.00</b>	<b>0.00</b>	<b>1092451.00</b>	<b>0.00</b>	<b>452212.00</b>	<b>0.00</b>	<b>452212.00</b>	<b>640239.00</b>	<b>0.00</b>
<b>PREVIOUS YEAR</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		
<b>B. CAPITAL WORK IN PROGRESS</b>										
Cost of Assets on hire purchase basis included above										

 Cost / valuation as of beginning of the year is shown in  
 Schedule 48 at Page No. 108 of TIFAC

**NATIONAL MISSION ON BAMBOO APPLICATIONS**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

<u>SCHEDULE 9 - EARMARKED/ENDOWMENT FUNDS</u>	Current Year	Previous Year
1. In Government Securities	0.00	0.00
2. Other approved Securities	0.00	0.00
3. Shares	0.00	0.00
4. Debentures and Bonds	0.00	0.00
5. Subsidiaries and Joint Ventures	0.00	0.00
6. Others (to be specified)	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>

<u>SCHEDULE 10 - INVESTMENTS - OTHERS</u>	Current Year	Previous Year
1. In Government Securities	0.00	0.00
2. Other approved Securities	0.00	0.00
3. Shares	0.00	0.00
4. Debentures and Bonds	0.00	0.00
5. Subsidiaries and Joint Ventures	0.00	0.00
6. Others (to be specified)	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>



**NATIONAL MISSION ON BAMBOO APPLICATIONS**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

SCHEDULE 11 -CURRENT ASSETS, LOANS, ADVANCES ETC.	Current Year		Previous Year	
<b>A. CURRENT ASSETS</b>				
1. Inventories:				
a) Stores and Spares				
b) Loose Tools	0.00		0.00	
c) Stock-in-trade	0.00		0.00	
Finished Goods				
Work-in-progress	0.00		0.00	
Raw Materials	0.00		0.00	
2. Sundry Debtors:	0.00		0.00	
Sundry Debtors-MTNL				
3. Cash balances in hand (including cheques/drafts and imprest)	9066.00		0.00	
4. Bank Balances:				
a) With Scheduled Banks: (Union Bank of India)				
On Current Accounts	0.00		0.00	
On Deposit Accounts (Short term deposits) (Annex 7)	4000000.00		0.00	
On Savings Accounts	33461347.60		0.00	
On Interest Receivable	263040.50		0.00	
0) With non-Scheduled Banks:				
On Current Accounts				
On Deposit Accounts				
On Savings Accounts				
4. Post Office-Savings Accounts				
<b>TOTAL</b>	<b>73733454.10</b>		<b>0.00</b>	

B. LOANS, ADVANCES AND OTHER ASSETS	Current Year		Previous Year	
1. Loans				
2. Advance and other amounts recoverable in cash or in kind or for value to be received.				
a) On capital Account				
1) Advance for projects materials				
b) Prepayments				
c) Others				
- Security Deposit MTNL	500.00		0.00	
- Security Deposit :Romi Sukhija (Lease)	15000.00		0.00	
- Security Deposit: Sh. Harish C. Gaur	17000.00		0.00	
- Security Deposit : Sh. Lekha Ram	15000.00		0.00	
- Tour Advance : Col. Arvind Malhotra	98447.00		0.00	
- Tour Advance : Sh. V.S. Oberoi	24426.00		0.00	
3. Income Accrued:-				
a) On Investments from Earmarked/ Endowment Funds	0.00		0.00	
b) On Investment – Others	0.00		0.00	
c) On Loans and Advances	0.00		0.00	
d) Others (includes income due unrealized Rs.....)	0.00		0.00	
4. Claims Receivable	0.00		0.00	
<b>Total – B</b>	<b>170373.00</b>		<b>00.00</b>	
<b>Total (A+B)</b>	<b>73903827.10</b>		<b>00.00</b>	

**NATIONAL MISSION ON BAMBOO APPLICATIONS  
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2006**

(Amount – Rs.)

SCHEDULE 11A - CAPITAL FUND IN PROGRESS	Current Year		Previous Year	
	i) Interior Work of NMBA / TIFAC Building(Civil/Elect.)	2550799.00		
	2550799.00			0.00

**NATIONAL MISSION ON BAMBOO APPLICATIONS**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006**

(Amount – Rs.)

SCHEDULE 12 - INCOME FROM SALES /SERVICES	Current Year	Previous Year
1. Income from Sales		
a) Sale of finished Goods	0.00	0.00
b) Sale of Raw Material	0.00	0.00
c) Sale of Scraps	0.00	0.00
2. Income from Services		
a) Labour and Processing Charges	0.00	0.00
b) Professional/Consultancy Services	0.00	0.00
c) Agency Commissions and Brokerage	0.00	0.00
d) Maintenance Services (Equipment/Property)	0.00	0.00
e) Others (Specify)	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>

SCHEDULE 13- GRANTS/SUBSIDIES (TIFAC Regular) (Irrevocable Grants & Subsidies Received)	Current Year	Previous Year
1. From Central Government		Previous Year figures are shown in Schedule 34 at Page No 101 of TIFAC
A. NMBA GRANTS		
Grants in Aid (Plan)	171667000.00	
Grant in Aid (Non plan)	0.00	
Transfer from Aid : TIFAC	36765545.60	
2. State Government(s)	0.00	
3. Government Agencies	0.00	
4. Institutions/Welfare Bodies	0.00	
5. International Organisations	0.00	
6. Others (Specify)	0.00	
<b>TOTAL</b>	<b>208432545.60</b>	

**NATIONAL MISSION ON BAMBOO APPLICATIONS  
SCHEDULES FORMING PART OF INCOME & EXPENDITURE  
FOR THE YEAR ENDED 31.03.2006**

(Amount – Rs.)

SCHEDULE 14 - FEES/SUBSCRIPTIONS	Current Year	Previous Year
1. Entrance Fees	0.00	0.00
2. Annual Fees/Subscriptions	0.00	0.00
3. Seminar/Program Fees	0.00	0.00
4. Consultancy Fees	0.00	0.00
5. Others (Specify)	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>

SCHEDULE 15- INCOME FROM INVESTMENTS (Income on Invest. From Earmarked/Endowment Funds transferred to Funds)	Investment from Earmarked Fund		Investment - Others	
	Current Year	Previous Year	Current Year	Previous Year
1. Interest				
a) On Govt. Securities	0.00		0.00	0.00
b) Other Bonds/Debentures	0.00		0.00	0.00
2. Dividends:				
a) On Shares	0.00		0.00	0.00
b) On Mutual Fund Securities	0.00		0.00	0.00
3. Rents	0.00		0.00	0.00
4. Others (Specify)	0.00		0.00	0.00
<b>TOTAL</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>
<b>TRANSFERRED TO EARMARKED/ENDOWMENT FUNDS</b>				

**NATIONAL MISSION ON BAMBOO APPLICATIONS**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006**

(Amount – Rs.)

SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ETC.	Current Year	Previous Year
1. Income from Royalty	00.00	0.00
2. Income from Publications	472014.00	00.00
3. Others (Specify)	00.00	00.00
4. Interest : Mobilisation Advance. (Civil)	00.00	00.00
<b>Total</b>	<b>472014.00</b>	<b>00.00</b>

SCHEDULE 17- INTEREST EARNED (REGULAR)	Current Year	Previous Year
1. On Term Deposits:		Previous Year Interest with TIFAC
a) With Scheduled Banks	489888.50	
b) With Non-Scheduled Banks	00.00	
c) With Institutions	00.00	
d) Others	00.00	
2. On Savings Accounts:		
a) With Scheduled Banks	1327050.00	
b) With Non-Scheduled Banks	00.00	
c) Post Office Savings Accounts	00.00	
d) Others	00.00	
3. On Loans:		
a) Employees/Staff	00.00	
b) Others (Long term advances)	00.00	
4. Interest on Debtors and Other Receivables	00.00	
<b>TOTAL</b>	<b>1816938.50</b>	
<b>Note - Tax deducted at source to be indicated</b>		

**NATIONAL MISSION ON BAMBOO APPLICATIONS**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006**

(Amount – Rs.)

<u>SCHEDULE 18 - OTHER INCOME.</u>	Current Year	Previous Year
1. Profit on Sale/disposal of Assets		Previous Year figures are shown in Schedule 36 at Page No 102 of TIFAC
a) Owned assets	0.00	
2. Assets acquired out of grants, or received free of cost	0.00	
3. Export Incentives realized	0.00	
4. Fees for Miscellaneous Services	0.00	
5. Miscellaneous Income		
- Other receipts (computers)	3600.00	
- Other receipts (sale of Prefab shelter)	83712.00	
- Other Receipt (Licence fee)	6860.00	
- Misc. Deduction from Salary	5978.00	
- Project grant refund (ARCI & Mitra )	1211150.00	
<b>TOTAL</b>	<b>1311300.00</b>	

<u>SCHEDULE 19 -INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS &amp; WORK IN PROGRESS</u>	Current Year	Previous Year
a). Closing stock		
- Finished Goods	0.00	0.00
- Work-in-progress	0.00	0.00
b) Less: Opening Stock		
- Finished Goods	0.00	0.00
- Work -in –progress	0.00	0.00
<b>NET INCREASE/(DECREASE) [ a-b]</b>	<b>0.00</b>	<b>0.00</b>

**NATIONAL MISSION ON BAMBOO APPLICATIONS**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006**

(Amount – Rs.)

SCHEDULE 20 - ESTABLISHMENT EXPENSES (NMBA / TIFAC REGULAR)	Current Year	Previous Year
a) Salaries	3992928.00	Previous Year figures are shown in Schedule 37 at Page No 102 of TIFAC
b) Allowances and Bonus	4367.00	
c) TIFAC Contribution to Provident Fund	57948.00	
d) Contribution to Other Fund (specify)	0.00	
e) Staff Welfare Expenses	0.00	
f) Expenses on Employees' Retirement and Terminal benefit(Gratuity)	0.00	
g) Others (Specify)	0.00	
- Consulting charges	18000.00	
- Wages	0.00	
- Honorarium	27250.00	
- Medical Expenses	316341.00	
- Leave Travel Concession	7294.00	
- Leave Salary & Pension Contribution	7033.00	
- Lease Accomodation	270000.00	
- Transfer on Traveling Allowance	87047.00	
<b>Total</b>	<b>4788208.00</b>	



**NATIONAL MISSION ON BAMBOO APPLICATIONS**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006**

(Amount – Rs.)

SCHEDULE 21 - ADMINISTRATIVE EXPENSES ETC.	Current Year	Previous Year
a) Repairs and maintenance	65984.00	Previous Year figures are shown in Schedule 37 at Page No 102 of TIFAC
b) Rent, Rates and Taxes	0.00	
c) Car Hire Charges & Conveyance	650381.00	
d) Postage, Telephone and Communication Charges	337371.00	
e) Printing and Stationary	2304740.00	
f) Travelling Expenses	3207518.00	
g) Expenses on Seminary/Workshops /Others Exp.	3078714.00	
h) Meeting Expenses	272844.00	
i) Expenses on Fees (Tution fee)	480.00	
j) Auditors Remuneration	20000.00	
k) Advertisement and Publicity	102000.00	
l) Others (Specify)		
- Stationery	136046.00	
- MISC. Office Expenses	263657.00	
- Perodical & Magazine	5158.00	
m) Maintenance of Vishwakarma Bhavan	0.00	
n) Loss on sale of Fixed Assets	0.00	
o) Legal Charges	0.00	
p) Travel Abroad	702462.00	
q) International Conference on NMBA	958136.00	
r) Other Fixed Assets	0.00	
<b>TOTAL</b>	<b>12105491.00</b>	

**NATIONAL MISSION ON BAMBOO APPLICATIONS**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2006**

(Amount – Rs.)

SCHEDULE 22 - EXPENDITURE ON GRANTS, SUBSIDIES ETC.	Current Year	Previous Year
a) Grants given to Institutions/Organisations Project Expenditure (As per Annexure-A)	118062778.00	Previous Year figures are shown in Schedule 38 at Page No 102 of TFAC
b) Subsidies given to Institutions/Organisations	0.00	
<b>TOTAL</b>	<b>118062778.00</b>	
<b>Note - Name of the Entities, their Activities along with the amount of Grants/Subsidies are to be disclosed.</b>		

SCHEDULE 23 - INTEREST	Current Year	Previous Year
a) On Fixed Loans (Including Bank Charges)	0.00	0.00
b) On Other Loans (including Bank Charges)	0.00	0.00
c) Others (Specify)	0.00	0.00
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>

**NATIONAL MISSION ON BAMBOO APPLICATIONS**  
**SCHEDULES FORMING PART OF ACCOUNTS FOR THE PERIOD ENDED 31.03.2006**

SCHEDULE - 24

ACCOUNTING POLICIES AND NOTES TO THE ACCOUNTS FOR THE YEAR ENDING 31ST MARCH, 2006

A) ACCOUNTING POLICIES

- 1 The Council has adopted Mercantile System of the Accounting.
- 2 Fixed Assets are shown at cost Less Depreciation.
- 3 Prior period and extra ordinary items and changes in accounting policies having material impact on the financial affairs of the Council are disclosed.
- 4 Depreciation has been calculated as per Income Tax Act, 1961.Deviation are as per Note B(1) below.
- 5 Amounts released under various projects are accounted as expenditure for the year in which the same are released, irrespective of the fact that the amounts so released may not have been fully utilised towards the projects during the accounting year.
- 6 Unspent amount of grant received during the year for specific purposes has transferred to Capital Account.
- 7 The repayment of grant / assistance to TIFAC by the beneficiaries, as per condition stated in agreements with them shall be accounted on receipt basis.
- 8 All disbursements for projects are treated as expenditure during the Financial Year and assets created, if any, out of the said disbursements to the project, are not accounted for as assets in the books.
- 9 Contingent liabilities in respect of on-going Projects / Studies etc. are neither provided nor determined.
- 10 Total expenditure is not bifurcated in plan and non plan expenditures in financial statements.

B) NOTES TO THE ACCOUNTS

- 1 Depreciation amount Rs.452212.00 has been provided during the financial year 2005-2006 but depreciation is not provided for Fixed Assets created in respect of following project (i.e expenditure on Fixed Assets treated as Revenue Expenditure)-Capital Expenditure of National Mission on Bamboo Applications.

- 2 Stock of Publications and Studies, which are published and printed by the Council and distributed at a cost are not accounted for as Stock in hand at the end of the year.
- 3 Expenses for purchase of Capital Goods debited to grants utilized and not shown as fixed assets in the final statements are as below:

	CURRENT YEAR (Rs.)	PREVIOUS YEAR (Rs.)
<b>MISSION PROJECT ON TECHNOLOGY FOR BAMBOO PRODUCTS</b>		
Office Equipment	93721.00	0.00
Computer/ Peripherals	870800.00	0.00
Furniture	89445.00	0.00
Others	38485.00	0.00

4. Audited financial statements / utilization statements duly certified by Chartered Accountants in respect of grant utilized / released during the year has not yet been received in some cases from the implementing agencies.
- 5 There are no query / note by parliament / Department of Science and Technology outstanding in respect of previous audited accounts of TIFAC. This is as certified by the registrar.
6. Previous year figures have been regrouped wherever necessary, to make them comparable with current year figures.
7. Accounts have been prepared as per New format provided by CAG for Non-profit organization. Previous year's figures have also been re-arranged as per new format. The format for Income & Expenditure A/cs has been changed in order to reflect all types of grants received by NMBA in the account. The previous year's figures have been regrouped accordingly in the Income & Expenditure Account.
8. Liability towards gratuity payable on death / retirement of employees is not provided for.
9. Provision for accumulated leave encashment benefit to employees is not provided for.
10. Necessary Provision has been made for the following Expenses

Salary	364008.00
Audit Fees	20000.00
Security Deposit Refund	15000.00
TIFAC: Sundry Creditor	71748.00

11. Travelling expenses related to meeting paid to outside party has been accounted for as meeting expenses during the Financial year 2005-2006.
- 12) Rs.36765545.60 shown in Schedule -13 of Income & Expenditure A/c is the amount transfer from TIFAC.

for RAKESH RAJ & ASSOCIATES  
CHARTERED ACCOUNTANTS

-Sd-  
ASHWANI TANEJA  
(PARTNER)

-Sd-  
ACCOUNT OFFICER  
NMBA

-Sd-  
REGISTRAR  
NMBA

-Sd-  
MISSION DIRECTOR  
Head, NMBA

DATE: 13<sup>th</sup> November 2006

PLACE: NEW DELHI

# NATIONAL MISSION ON BAMBOO APPLICATIONS

## SCHEDULES FORMING PART OF ACCOUNTS FOR THE PERIOD ENDED 31.03.2006

### SCHEDULE 25 - CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS (Illustrative)

#### 1. CONTINGENT LIABILITIES

1.1. Claims against the Entity not acknowledged as debts - Rs. \_\_\_\_\_ NIL. \_\_\_\_\_ (Previous year Rs. \_\_\_\_\_ NIL. \_\_\_\_\_)

1.2. In respect of

- Bank guarantees given by/on behalf of the Entity - Rs. \_\_\_\_\_ NIL. \_\_\_\_\_ (Previous year Rs. \_\_\_\_\_ NIL. \_\_\_\_\_)

- Letters of Credit opened by Bank on behalf of the Entity - Rs. \_\_\_\_\_ NIL. \_\_\_\_\_ (Previous year Rs. \_\_\_\_\_ NIL. \_\_\_\_\_)

- Bills discounted with banks Rs. \_\_\_\_\_ NIL. \_\_\_\_\_ (Previous year Rs. \_\_\_\_\_ NIL. \_\_\_\_\_)

1.3. Disputed demands in respect of :

Income-tax Rs. \_\_\_\_\_ NIL. \_\_\_\_\_ (Previous year Rs. \_\_\_\_\_ NIL. \_\_\_\_\_)

Sales-tax Rs. \_\_\_\_\_ NIL. \_\_\_\_\_ (Previous year Rs. \_\_\_\_\_ NIL. \_\_\_\_\_)

Municipal Taxes Rs. \_\_\_\_\_ NIL. \_\_\_\_\_ (Previous year Rs. \_\_\_\_\_ NIL. \_\_\_\_\_)

1.4. In respect of claims from parties for non-execution of orders, but contested by the Entity - Rs. \_\_\_\_\_ NIL. \_\_\_\_\_ (Previous year Rs. \_\_\_\_\_ NIL. \_\_\_\_\_)

#### 2. CAPITAL COMMITMENTS

Estimated value of contracts remaining to be executed on capital account and not provided for (net of advances)  
Rs. \_\_\_\_\_ NIL. \_\_\_\_\_ (Previous year Rs. \_\_\_\_\_ NIL. \_\_\_\_\_)

#### 3. LEASE OBLIGATIONS

Future obligations for rentals under finance lease arrangements for plant and machinery amount to Rs. \_\_\_\_\_ NIL. \_\_\_\_\_ (Previous year Rs. \_\_\_\_\_ NIL. \_\_\_\_\_)

#### 4. CURRENT ASSETS, LOANS AND ADVANCES

In the opinion of the Management, the current assets, loans and advances have a value on realization in the ordinary course of business, equal at least to the aggregate amount shown in the Balance Sheet.

#### 5. TAXATION

In view of there being no taxable income under Income-tax Act 1961, no provision for Income Tax has been considered necessary.

# NATIONAL MISSION ON BAMBOO APPLICATIONS

SCHEDULES FORMING PART OF ACCOUNTS FOR THE PERIOD ENDED 31.03.2006

SCHEDULE 25 - CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS (Illustrative) - Contd.

		(Amount-Rs.)	
		Current Year	Previous Year
6.	FOREIGN CURRENCY TRANSACTIONS		
6.1.	Value of Imports Calculated on C.I.F. Basis:		
	- Purchase of finished Goods	N.A.	N.A.
	- Raw Materials & Components (Including in transit)	N.A.	N.A.
	- Capital Goods	N.A.	N.A.
	- Stores, Spares and Consumables	N.A.	N.A.
6.2.	Expenditure in foreign currency:		
	a) Travel	N.A.	N.A.
	b) Remittances and Interest payment to Financial Institutions/ Banks in Foreign Currency	N.A.	N.A.
	Other expenditure:		
	- Commission on Sale	N.A.	N.A.
	- Legal and Professional Expenses	N.A.	N.A.
	- Miscellaneous Expenses	N.A.	N.A.
6.3.	Earnings:		
	Value of Exports on FO basis	N.A.	N.A.
6.4.	Remuneration to auditors:		
	As Auditors	0.00	0.00
	- Taxation matters	0.00	0.00
	- For Management services	0.00	0.00
	- For certificate	20000.00	0.00
	- Others		
7.	Corresponding figures for the previous year have been regrouped/rearranged, wherever necessary.		
8.	Schedules 1 to 25 are annexed to and form an integral part of the Balance Sheet as at 31.03.2006 and the Income and Expenditure Account for the year ended on that date.		

for RAKESH RAJ & ASSOCIATES  
CHARTERED ACCOUNTANTS

-Sd-  
ASHWANI TANEJA  
(PARTNER)

-Sd-  
ACCOUNT OFFICER  
NMBA

-Sd-  
REGISTRAR  
NMBA

-Sd-  
MISSION DIRECTOR  
Head, NMBA

DATE: 13 November 2006  
PLACE: NEW DELHI

## NATIONAL MISSION ON BAMBOO APPLICATIONS

Particulars	Current Year	Previous Year
<b>Project Expenditure</b>		
- 56 Eng.,10km Bamboo fencing at 14nf Div. c/town, Dehradun	534000.00	Previous Year figures are shown in Annexure 10A at Page No 130, 131,132 of TIFAC
- Development of application profiles	0.00	
- Assessment & projection of potential commercial units based on bamboo gasification & charcoal / activated carbon in three North-Eastern state of Tripura, Mizoram and Arunachal Pradesh by DA	689354.00	
- Development of bamboo cutter, compaction press, dehumidification of bamboo & activation of bamboo charcoal by APTDC	0.00	
- Bamboo characterization for thermo-chemical conversion & feasibility of bamboo based gassification & charcoal making by lisc.	415200.00	
- Assessment of promotion of potential commercial unit based on bamboo gasification and charcoal / activated carbon in 3 N-E state of Tripura, Mizoram and Arunachal Pradesh, by lisc.	300000.00	
- Bamboo plantation based technology package for soil reclamation,soil stabilization & community level, shoot cultivation & processing by DZHMT	717193.00	
- Prepration of a comprehensive,user-friendly bibliography of WBC-VII related literature and publishing it electronically in CD form and on the web.	0.00	
- Demonstration of drum charring unit in five location in India by IIT,Mumbai.	392000.00	
- Demonstration of monopodial bamboo plantation and Chinies bamboo in arunachal Pradesh by SFRI,(APFRDA)	52800.00	
- Development & standardized of technology for construction of bamboo sandwich composite material & production & development of techno-commercial project package for entrepreneurial action by SDC, Bangalore.	1000000.00	
- Development of approach to communication,	0.00	



## NATIONAL MISSION ON BAMBOO APPLICATIONS (Contd...)

Particulars	Current Year	Previous Year
design & outreach, & a mission identify programs of NMBA.		
- Development & demonstration of structure application involving the use of bamboo & based materials.	0.00	
- Development of technology package & training manual for bamboo shot a processing at cluster level for lower capacity and self life & demonstration of the technology & equipment / machinery at 4 locations in N.E.	0.00	
- Development of value added applications in A.P involving use of bamboo & the commercialization of related technology - APTDC.	0.00	
- Documentation & appraisal of high end structures in bamboo by PSD Associates.	0.00	
- Draft national building code (chapter 3B bamboo)	0.00	
- Establishment of a bamboo flooring & composites manufacture unit at Guwahati (KFPPL)	6319756.00	
- Development and demonstration of structural application involving the use of bamboo and based material (Khammam, A.P.) by HET	200000.00	
- Development & demonstration of a bamboo based housing at SALOD, Wardna. by ASTS,Pipri	493323.00	
- Market survey study for assessment of market potential of bamboo flooring & bamboo furniture components.	0.00	
- Design & development of prototype of primary processing machineries for bamboo applications.	649640.00	
- Procurement of material for prefabricated shelter of flattened bamboo for various sector as demonstration of NMBA Products	10280275.00	
- Product promoting scheme of bamboo composite.	98000.00	
- Propagation of phyllostachys pubescens in H.P Palampur by IHBT	176542.00	
- Study on techno-commercial feasibility report on activated carbon from bamboo.	0.00	
- Development & standardization of technology for application of natural colourants on bamboo &	0.00	

Previous Year figures are shown in Annexure 10A at Page No 130, 131, 132 of TIFAC

(Contd...)

## NATIONAL MISSION ON BAMBOO APPLICATIONS (Contd...)

Particulars	Current Year	Previous Year
bamboo products including creation of technology package and its demonstration & dissemination to potential entrepreneurs by IIT, Delhi		
- Evaluation of the technology package for the commercial production of bamboo boards / laminates – joint investigative analysis with IPIRTI, Bangalore & upscaling to techno-commercial packages.	0.00	
- UBFDB-Demonstration of Bamboo Plantation Based Technology for soil reclamation Community Level Cultivation.	0.00	
- TERI Bamboo Plantation with soil Enrichment & Amendments using fly ash & Mycorrhizal in Koobra (Chattisgarh)	632358.00	
- TERI Sehore (MP) Tech. Package for Bamboo Plantation with soil enrichment using fly ash & Mycorrhizal bio	672183.00	
- Process of Bamboo Shoot at 8 Locations including 6 location in North-East, 1 in Karnataka & 1 in U.P, by ERG, Bangalore	172740.00	
- Supply of Tissue Cultures plants of bambusa Balcooa, Bambusa Nutans & Dendrocalamus, by Gromore, Hosur.	130712.00	
- Development of Continuous bamboo slat dryer by ERG, Bangalore.	1384151.00	
- Teri Preparation of a manual on tissue culture.	0.00	
- Development of NMBA Website on the Basis of already developed content structure & design Interface by Inomy Media.	275000.00	
- NEDFI, DBAI Bamboo Stick making unit establishment at Manipur.	0.00	
- NEDFI (LVFPPL) Bamboo shoot Processing unit in Jorhat.	0.00	
- Study on bamboo production consumption by VMRC, Mumbai	76057.00	
- TERI Bambusetums for superior germplasma of Bamboos at three location in GWH, HYD, & GBPU	1298000.00	
- NFPL Bamboo Shoot Processing Unit(1800TPA) by Nagaland Foods (P) Ltd, Nagaland.	9474000.00	

Previous Year figures are shown in Annexure 10A at Page No 130, 131, 132 of TIFAC

(Contd...)

## NATIONAL MISSION ON BAMBOO APPLICATIONS (Contd...)

Particulars	Current Year	Previous Year
- VEDHA Establishing demonstrative entt. In Mechanised Processing of Bamboo Fur. & Prod. Application .	1342000.00	Previous Year figures are shown in Annexure 10A at Page No 130, 131, 132 of TIFAC
- Setting up 3 prefeb/modular units in front locations of armi (Dinjan, Kibithu) by RV-TIFAC.	0.00	
- IISC Two gasifire units at mountain division of the Indian Army .	44500.00	
- Pilot Scale study on activated carbon by M/s Nagalaxmi Industries.	183000.00	
- Testing charges of bamboo products.	311290.00	
- IHBT- Produce 60000 nos. of plant material of phyllostachys pubescens of good quality & provenance.	109000.00	
- Gel coating / Resin Spraying Machine By RV-TIFAC (CDC), Bangalore.	474901.00	
- Support for Coordinated trials for managed bamboo propagation by G.B Pant university.	545600.00	
- 100KWE Demonstrative Gasifire unit at Alonga, Indian Army By IISC- Bangalore.	0.00	
- High – End structure at the garden of five senses, New Delhi.	381442.00	
- Supply of 460 sheets to gon by RV-TIFAC for constructing an enaborate site of bamboo Based Structures.	0.00	
- Development of Bamboo Fiber Production through non-destructive Route by IIT-Delhi.	100000.00	
- Training / Demonstration program for cluster / Community level processing of Bamboo Shoot in different States by ERG, Bangalore .	0.00	
- Bamboo Nursery for mass multifications & Consurvetation of bamboo balcooa by AAI, Albd.	737200.00	
- Activated carbon from bamboo charcoal through ACIPL by unit of APDC.	90000.00	
- GT,D: Up gradation of workshop with machine ,tools and Instruments with cutter etc.	2220000.00	
- SMW,B: Mfg. unit of bamboo based composites for Interior as Railway, Buses & Transport Industry.	7500000.00	

(Contd...)

## NATIONAL MISSION ON BAMBOO APPLICATIONS (Contd...)

Particulars	Current Year	Previous Year
- SPF: Estb. Of bamboo silver & sticks making units at Bongaigaon.	3500000.00	Previous Year figures are shown in Annexure 10A at Page No 130, 131, 132 of TIFAC
- WMIPL: Estb. Of prototyping , testing & commercialization of bamboo processing Machine.	5100000.00	
- Ajay: IIT,G, Devpt. & Promotion Tech. Training Programmed in M.P.	40593.00	
- APIL:Estb. Of Mfg. unit for T & P bamboo composites & products in Namsai Unit	1410000.00	
- BBCCPL: Mking Handicraft & Furniture product in Silchar	850000.00	
- BCP: Bamboo plantation in tea sector.	400000.00	
- BRIAS: Study on bamboo fiber through pulping route	302461.00	
- CII,G: Bamboo aces & Regulatory frame workshop in N.E.	57500.00	
- CIPET: Bamboo fiber reinforced thermoplastics through cipet, Chennai	2387650.00	
- CPCL: Demonstration battery of 5 kline in Manipur, Nagaland etc. sector.	311876.00	
- DC,Jorhat: Commercial Cultivation of bamboo in 4 road block at Jorhat.	162000.00	
- DC,Pas.: Development & demonstration of Eco-Friendly houses at Ruksin Block.	3498309.00	
- Dc, Pasighat: Rehabilitation of child hospital & maternity centre building	1702229.00	
- DD,Sfd,: Development of nursery of vegetated propagation model in Sindhudurg	300000.00	
- Demonstrative housing for troops at Portblair & other area.	3087863.00	
- Dfo,N: Nodel bamboo vegetative propogation centre in Namsai.	600000.00	
- Dm,Banka : Community based in tensive cultivation bamboo.	288000.00	
- Dm,K.: Dempnstrative structure in Khammam as 2 community hall and 1 hall.	157592.00	
- Fda: 1 km stretch bamboo based of costal shelterbelt	600000.00	

(Contd...)

## NATIONAL MISSION ON BAMBOO APPLICATIONS (Contd...)

Particulars	Current Year	Previous Year
plantation in thanjavour.		
- Fda,Raj.: Mfg./unit of thin silvering machine & mat making machine unit at Tripura.	110000.00	
- Fda, Thj.: Bamboo extension & enterprises beeds programme in collobration wih FDA,Thanjavur	200000.00	
- Fri,Dehr.: Development & Improved Chemical formulation & Equipment for efficient treatment of bamboo by FRI,Dehradun.	343000.00	
- Gian,g: Development of bamboo lathe machine in north east area through GIAN,Guwahati.	42000.00	
- Hpc,n: 1mwe thermal gasifier system with Nagoan paper Mills	8750000.00	
- Hpc,C: 1mwe thermal power gasifier system with Chachar paper mills Ltd.	8750000.00	
- Hq. Army, bamboo plantation throny perimeter fencing in various army sectors in India.	247150.00	
- lisc: 90kwe Demonstration,processin & treatment facilities of Gassifire Equipment for Dimapur Through -NBDA,Kohima.	1850000.00	
- lisc: Establishment of 25kwe Gasifire unit at Forest Complex Basistha (Assam)	1036000.00	
- lisc: Implementation charges for Gassifer Units at Hpc , Nagon-Chachar Mills Ltd.	250000.00	
- Ilsc: Storability of bamboo Through Process to enhance Torrification	1600000.00	
- lit, G: Explore Use Bamboo Flooring Tiles Product-and its products day to day used by lit, Guwahati	150000.00	
- IL&FS: Study on Development & Activity for Bamboo Sector in Tripura	500000.00	
- Ipirti: Establishment of Bamboo Mat Unit at Trichy (T.M)	1000000.00	
- IWST: Standering Package of Practices Cultivation as Guadha bamboo plant by IWST,Bangalore	165000.00	
- Jsdc: Plantation of Bamboo Shoot in Ranchi (Jharkhand)	301480.00	
- Kbcd: Functional Test & Market Assesment of	150000.00	

Previous Year figures are shown in Annexure 10A at Page No 130, 131, 132 of TIFAC

(Contd...)

## NATIONAL MISSION ON BAMBOO APPLICATIONS (Contd...)

Particulars	Current Year	Previous Year
bamboo based mango pack.case,by KBCDC, Sindhudurg		
- Kitply: Test of primary process machine for Bamboo Composite product.units at Marghirita (Gwh)	1428000.00	
- Kpj: Consultant for Kosons Project unit at Amigaon Guwahati	131001.00	
- Multilocational Locational Trial of Bamboo in 10 Sector through GB Pant University	3695273.00	
- Nbda: Bamboo charcoal & Activated Carbon Unit -Nagala	470000.00	
- Nbda, K-Cfc: Establishment of demonstrative bamboo treatment machine Facilities of round bamboo unit at NBDA & KONBAC.	571000.00	
- Nle: Development of prototype & testing of bamboo Dust palletize by NLE,Kolkatta	70000.00	
- Nsm, L :Development & supply of bamboo Sqaure Stick making Machine to Deva Bamboo.	125000.00	
- Pmctw: Quality plant Material Establishment of demonstrative plantation with PMCTW	215000.00	
- PCTW: Demonstration structure using bamboo products in 4 nodel centre at Thanjvour	388349.00	
- Rehabilitation of Earthquake Vicitims at J&K bamboo structure	4889401.00	
- Sdc: Supply of bamboo mat Glass Fiber Roofing Sheet, Tripura	1689832.00	
- Sdc: Development & Standard technology of bamboo mat Glass Fiber Composite (Honorarium)	10000.00	
- Sdcpl: Ready Reckoner 2005 structural bamboo Application .	104000.00	
- Se, H: Development of prototype & Testing of bamboo Dust machine with SE,Hyd.	225000.00	
- Sfdk: Supply of 25000qty.Dendrocoloum Stock nursery Vegetative Propogation Model	335943.00	
- Siir: Utilizing of Bamboo fibre for exploring the facility of Non Woven Applicaton	275000.00	

Previous Year figures are shown in Annexure 10A at Page No 130, 131,132 of TIFAC

(Contd...)

## NATIONAL MISSION ON BAMBOO APPLICATIONS (Contd...)

Particulars	Current Year	Previous Year
- Spsetia: Study on Techno Economic Feasibility Report on (B-Fibre/Filament)	165300.00	Previous Year figures are shown in Annexure 10A at Page No 130, 131, 132 of TIFAC
- Teri: Bamboo Plantation Through I.S.P. In Rajasthan	816200.00	
- Tsunami Relief Programme -Setup Sample House for Tsunami victims in costal area – Chennai	226242.00	
- Uravu: Life of Bamboo structural Application as farm of banana Props.	200000.00	
- Vb ppl: Bamboo Blind Manufacturing Unit of Power Looms project (Grant)	875000.00	
- Wm: Design & Development of Prototype as secondary processing Machine to Embee	484317.00	
- Project related expenditure (other project related expenses separate Show)	0.00	
<b>TOTAL</b>	<b>118062778.00</b>	

**NATIONAL MISSION ON BAMBOO APPLICATIONS**  
**TECHNOLOGY INFORMATION FORECASTING & ASSESSMENT COUNCIL**  
**Receipts & Payments for the period the year ended 31.3.2006**

RECEIPTS	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
I) OPENING BALANCES		
a) Cash in hand	0.00	0.00
b) Bank Balances		
i) In current accounts	0.00	0.00
ii) In Deposit accounts	0.00	0.00
iii) Savings accounts	0.00	0.00
II) GRANTS RECEIVED		
a) From Government of India- Plan (NMBA)	171667000.00	0.00
b) From Government-Non Plan	0.00	0.00
c) From State Government	0.00	0.00
d) From Government of India- TIFAC	36765545.60	0.00
III) INCOME FROM INVESTMENTS		
a) Earmarked/Endow. Funds	0.00	0.00
b) Own fund	0.00	0.00
IV) INTEREST RECEIVED		
a) On Bank Deposits (NMBA)(Schedule-17)	226848.00	0.00
Less: Receivable on deposit - Rs.263040.50		
b) Loans Advances etc. (Staff advances)	0.00	0.00
c) Interest earned from S/B A/C (schedule-17)	1327050.00	0.00
V) Other Income (specify) Schedule – 18 )		
- Refund from ARCI, Hyderabad project. (S-18)	1200000.00	
- Refund from M/s Mittra & Associates,Kolkatta	11150.00	
- Income from Sale of NMBA Publication	472014.00	
- Charges for Computer Provided at Residence	3600.00	
- Charges for Misc. Deduction from Salary	5978.00	
- Other Receipts (Licence Fee)	6860.00	
- Other Receipts – (Sale of prefab shelters)	83712.00	
- Security Deposits – NG’s Designs Pvt. Ltd.	15000.00	
VI AMOUNT BORROWED	0.00	0.00
VII OTHER RECEIPTS (GIVE DETAILS)	0.00	0.00
<b>TOTAL</b>	<b>211784757.60</b>	<b>0.00</b>



## PAYMENTS FOR EXPENSES

PARTICULARS	Current Year Amount (Rs.)	Previous Year Amount (Rs.)
<b>1) Expenses</b>		
a) Establishment Expenses (Corresponding to Schedule 20) Rs.4788208.00		
Add : Opening Exp. Payable 0.00		
Less Expenses Payable Rs. 364008.00	4424200.00	0.00
b) Administrative Expenses (Corresponding to Schedule - 21 Rs.12085491.00		
Add:Opening Exp.Payable 0.00		
Add : Loss on sale of Fixed Assets 0.00		
Less : Expenses Payables 71748.00		
Less : Loss on sale of Fixed Assets 0.00	12013743.00	0.00
(Previous year figure does not include obsolescence expenses in it.)		
c) Expenditure on Grants, Subsidies etc. (As per Schedule 22)	118062778.00	0.00
<b>2) Addition in fixed Assets</b>		
Office Equipment	93721.00	0.00
Furniture	89445.00	0.00
Library Book	38485.00	0.00
Computers and Peripherals	870800.00	0.00
Interior Work of NMBA/TIFAC Building(2nd')	2550799.00	0.00
<b>3) Other Payments (Specify)</b>		
- Security Deposits: Mrs. Romi Sukhija	15000.00	0.00
- Security Deposit : Sh. Harish C. Gaur	17000.00	0.00
- Security Deposit : Sh. Lekha Ram	15000.00	0.00
- Security Deposit : MTNL	500.00	0.00
- Tour Advance: Sh. Arvind Malhotra	98447.00	0.00
- Tour Advance: Sh. V.S. Oberoi	24426.00	0.00
<b>4) CLOSING BALANCE</b>		
Cash in Hand	9066.00	0.00
Cash at Bank	33461347.60	0.00
Short Term Deposits	40000000.00	0.00
<b>Total</b>	<b>211784757.60</b>	<b>0.00</b>

for RAKESH RAJ & ASSOCIATES  
CHARTERED ACCOUNTANTS

-Sd-  
ASHWANI TANEJA  
(PARTNER)

-Sd-  
ACCOUNT OFFICER  
NMBA

-Sd-  
REGISTRAR  
NMBA

-Sd-  
MISSION DIRECTOR  
Head, NMBA

DATE: Nov.' 2006  
PLACE: NEW DELHI