

# AREAS OF ACTIVITY



BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL, Ministry of Urban Employment & Poverty Alleviation, Government of India

**BMTPC**, established in 1990 as an interministerial body, strives to promote innovative, cost-effective building materials and products through evaluation, validation of proven technologies, demonstration and large scale dissemination of information. The Council maintains a continuing interaction with R&D, standardisation institutions, industry, concerned associations/federations, industrial promotional agencies, financial institutions, construction organisations of public and private sectors and NGOs.

## MISSION STATEMENT

Develop and operationalise a comprehensive and integrated approach for technology development, transfer and investment promotion to encourage application of environment-friendly & energy-efficient innovative materials, manufacturing technologies and disaster resistant construction practices for housing and building in urban and rural areas.

## THRUST AREAS

- Improving the policy environment for sustained growth of cost-effective building materials, production and availability.
- Promotion of production units of building materials/components based on Flyash, Redmud, Phosphogypsum, agricultural residues and other wastes and by-products.
- Modernization of small scale and village level building materials production units in rural and urban areas.
- Promoting economy in construction costs.
- Formulation of standards for local building materials.
- Strengthening industrial extension services for attracting more investment in building materials sector by working with national and international agencies.
- Upscaling of technologies, know-how acquisition, absorption and dissemination.
- Assessing vulnerability and risk in natural disaster prone areas.
- Promoting disaster resistant construction technologies.
- Global technology search and encouraging joint ventures in building materials and construction sector.
- Facilitating fiscal incentives like excise duty and custom duty exemptions for waste-based building materials and components.



*Demonstration Houses at Bawana, Delhi*



*MDO Building at Venkatachalam constructed by BMTPC*



*Machine for manufacturing of blocks, bricks & Pavers*



*Building products from Agro-Industrial Wastes*



*Building products from Agro-Industrial Wastes*



## Support Services Offered

The Council with its extensive networking with various R&D Institutions, Ministries/Government Departments, Universities, Financial Institutions, Public Agencies, Business Federations/Organizations and various International organizations such as UNIDO, UNCHS, ADB, World Bank etc., strives to provide multifaceted support services to the various stakeholders in the construction industry.

- **Support for identification and development of technologies** and building materials based on agricultural and industrial wastes and promotion of proven technologies for rural and urban housing construction.
- **Advise entrepreneurs in technology selection**, prototype development, commercial production and marketing and extend appropriate support for training and development/upgradation of process/technologies and procuring equipment, etc.
- **Assist in arranging technology transfer** from other countries and selection and evaluation of foreign technologies.
- **Undertake Techno-Economic Feasibility Studies** and formulation of detailed Project Reports on innovative energy-efficient building materials/products and construction systems.
- **Assist in capacity building and skill development** through training of village artisans, craftsmen and help in production of simple building components using local materials, skills and manpower and to coordinate with national, state and local level institutions of periodic training and orientation courses for professionals like engineers, architects, town planners, contractors and construction managers for creating confidence in use of new materials and technologies.
- **Evaluation, validation, certification and standardization** of new building materials and construction technologies through Performance Appraisal Certification Scheme.
- **As a clearing house of technology transfer from lab to land**, through production and application and as repository of information on all types of building materials including conventional and newly developed, under development in India and abroad.
- **Persuade Central and State Government agencies**, housing development and construction agencies and organizations in private and community sectors for application of proven cost effective and energy-efficient building materials and construction technologies.
- **Rendering of design services on adoption and application of innovative building materials** and construction technologies in the housing projects and slum development programmes of Government, Public and Private agencies/bodies.
- **Undertake Rapid Damage Assessment Studies** of the disaster affected areas and to develop and promote disaster resistant construction technologies.
- **Advise on vulnerability and risk assessment** and on formulation of relief, reconstruction and rehabilitation programmes for disaster mitigation and assist in capacity building for disaster preparedness.
- **Recommend to Government for fiscal and other concessions** to be provided for promoting and scaling up new technologies and building materials.



Green House Huts at Leh constructed by BMTPC



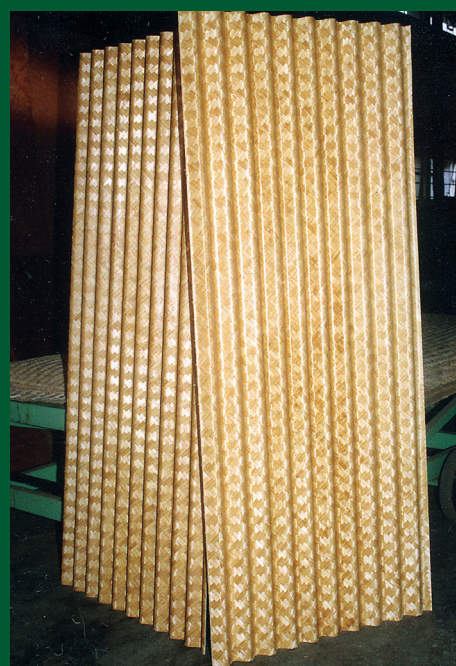
Technology Demonstration cum Production Centre of BMTPC at Greater Noida



Exhibition organised by BMTPC at Tanzania



Wood Substitutes Door Shutters



Bamboo Mat Corrugated Roofing Sheets

## Video Films of BMTPC

### 1. MAKAN HO TO AISA 15 min.

Film on improving buildings in earthquake prone areas of Garhwal. This is an instructional documentary film in Hindi for imparting training in repair and reconstruction of damaged houses using local materials and earthquake proof structures.

### 2. ABHIVARDHAN 30 min.

Film on nature of damages and what needs to be done for making houses disaster resistant in the Uttarkashi region. The film focuses directly on the needs of households and artisans to reconstruct their houses using traditional techniques with a catalytic input of modern materials and design techniques

### 3. A BETTER WAY TO BUILD 25 min.

This film focuses on technology delivery system for cost-effective housing. It highlights the activities of Building Centres as technology transfer agents for improving housing delivery system at grass-root level.

### 4. AASHRAY 28 min.

Film depicts the application of low cost building materials and technologies. It also gives guidance to common man to procure financial support and build a house.

### 5. LESSONS FROM LATUR 20 min.

Film is a rapid survey of causes, nature and extent of damage due to the earthquake in Latur and Osmanabad districts of Maharashtra and Gulbarga district of Karnataka in September 1993. The film also discusses measures for constructing earthquake resistant buildings. Alternate layout plans for reconstruction of villages, retrofitting of existing structures which are disaster prone, different technological options and social tensions arising out of the process of resettlement/relocation, etc., are covered.

### 6. HOMEWARD BOUND 16 min.

This film was produced on World Habitat Day, October, 1993 on the UNCHS (United Nations Commission on Human Settlements) theme Women and Shelter Developments. The film covers significant contributions and achievements made by India by encouraging participation of women in shelter process in different parts of the country.

### 7. FLYASH UTILISATION 20 min.

Nearly 95 million tonnes of flyash is being generated annually as waste by 70 thermal power stations in the country. Apart from covering large areas of useable land it leads to environmental problems by contributing to air-borne and sub-soil water pollution. The film shows various methods of utilising flyash to manufacture building materials. This can convert waste to wealth as country is facing

severe shortages of building materials, especially for housing.

### 8. SEISMIC RETROFITTING 20 min.

This film, in four parts, is a series of training films on the techniques of strengthening of houses in the earthquake affected regions of Marathwada in Maharashtra.

Part 1 Installation of headers

Part 2 Reduction of weight on the roof

Part 3 Installation of knee braces

Part 4 Installation of seismic bands

### 9. A STITCH IN TIME 15 min.

This film is a capsule on the techniques of strengthening partially damaged houses in the earthquake affected Marathwada district of Maharashtra, India.

### 10. PHOSPHOGYPSUM-BASED BUILDING MATERIALS 14 min.

Phosphogypsum is generated as a by-product of the phosphoric acid based fertiliser industry. The interaction of ground phosphate rock with sulphuric acid produces 10- to 40 per cent free moisture along with phosphogypsum. Nearly 4.0 million tonnes is generated per year. Over 12 million tonnes has accumulated at plant sites. This film shows the various methods of utilisation of phosphogypsum in production of building materials for ceiling, partition walling, etc.

### 11. BUILDING THE FUTURE BLOCK BY BLOCK 28 min.

Film on the activities of various Building Centres located in southern India and the ways they are helping in promoting cost-effective technologies.

### 12. BUILDING CENTERS: DELIVERING TECHNOLOGIES TO THE MASSES 15 min.

A brief film on the Rajasthan Building Centre, and the manner in which they are helping to develop and promote innovative building materials and cost effective technologies which have been adopted by the Centres in their construction.

### 13. IN SEARCH OF HOME 28 min.

A film on the theme of 'Home and the Family' on the occasion of World Habitat Day, 1994. It shows the poor civic amenities in substandard shelters and outlines the possibilities for improvement by using alternate cost-effective and eco-friendly building materials and technologies to convert a shelter into a home.

### 14. SHANKER BALRAM SEPTIC TANK 21 min.

This film in Hindi describes the method of constructing the maintenance free Shanker Balram Septic Tank for low cost sanitation. It also explains the advantages of this tank

over the conventional septic tanks available in India. This was based on a rapid survey carried out by BMTPC.

### 15. A SUCCESS STORY OF PLASTICS WASTE MANAGEMENT 25 min.

Plastics are being used in every walk of life and in the end results in wastes. This film shows various aspects of plastics waste management and the ways to recycle it.

### 16. ROOF FOR THE ROOFLESS 18 min.

A film on Gram-awaz 95 held during the India International Trade Fair 1995. The film shows shortage of housing in the country, various housing schemes launched by the Government of India and the cost-effective innovative building material and technologies for the rural poor.

### 17. TARA CRETE — A ROOF FOR MILLIONS 18 min

The film details the introduction, the manufacturing technology of Micro Concrete Roofing Tiles (MCR), the benefits of Tara Crete Roof, how to build with it and how much it would cost.

### 18. HOUSING AND INFRASTRUCTURE 18 min.

The films shows the various aspects of housing and cost-effective innovative building materials and technologies developed in India.

### 19. BUILD A SAFER TOMORROW 12 min.

The film covers the natural disaster preparedness and mitigation strategies covered in the Vulnerability Atlas of India prepared by the Council.

### 20. BUILD A SAFER TOMORROW ON CD ROM 12 min.

### 21. REKINDLING HOPE 14 Min.

The film shows the activities of BMTPC in the rehabilitation after Gujarat earthquake.

### 22. MICRO ENTERPRISES THROUGH BUILDING COMPONENTS PRODUCTION 15 Min.

The film covers the activities of demonstration cum production units set up by the Council at various locations for generating employment and micro enterprises.

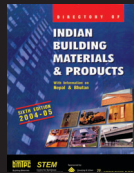
### 23. BMTPC - PROTECTING HOMES AND LIVES 15 Min.

A film on the multifarious activities of BMTPC.

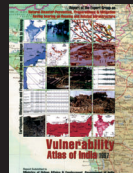
PRICE: RS. 1000 EACH FILM + PACKING AND POSTAGE CHARGES RS. 100.



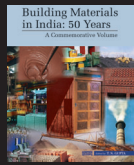
## Priced Publications of BMTPC



**DIRECTORY OF INDIAN BUILDING MATERIALS & PRODUCTS** (with information on Nepal & Bhutan) 2004-2005  
550 pages, Rs. 900 + 200 postage



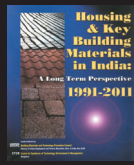
**VULNERABILITY ATLAS OF INDIA (1997)** - Earthquake, Windstorm and Flood Hazard Maps and Damage Risk to Housing, 712 pages, Rs. 3000 + 200 postage - State and Union Territories -wise  
**VULNERABILITY ATLASES** - Rs. 800 + 75 postage for each



**BUILDING MATERIALS IN INDIA : 50 YEARS** - 560 pages, Rs. 1500 + 200 postage



**LANDSLIDE HAZARD ZONATION ATLAS OF INDIA** - Landslide Hazard Maps and Cases Studies, 125 pages - Rs. 2500 + 200 postage



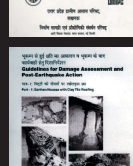
**HOUSING AND KEY BUILDING MATERIALS IN INDIA - A LONG TERM PERSPECTIVE** - 98 pages, Rs. 700 + 75 postage



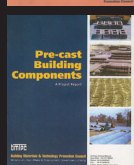
**MANUAL FOR REPAIR AND RECONSTRUCTION OF HOUSES DAMAGED IN EARTHQUAKE** of Oct. 91 in the Garhwal Region of U.P. 81 pages, Rs. 150 + 75 postage



**INSTRUCTION MANUAL FOR APPROPRIATE BUILDING SYSTEMS** 64 pages, Rs. 150 + 75 postage



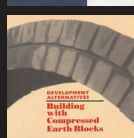
**GUIDELINES FOR DAMAGE ASSESSMENT AND POST EARTHQUAKE ACTION - JABALPUR** (Three Parts) - Rs. 250 + 75 postage for each part



**PRECAST BUILDING COMPONENTS** - 28 pages, Rs. 150 + 30 postage and packing



**GUIDELINES FOR DAMAGE ASSESSMENT AND POST EARTHQUAKE ACTION - CHAMOLI** (Two Parts) - Rs. 250 + 75 postage and packing for each part



**BUILDING WITH COMPRESSED EARTH BLOCKS** 28 pages, Rs. 60 + 30 postage



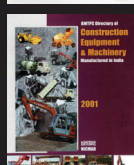
**GUIDELINES FOR IMPROVING EARTHQUAKE RESISTANCE OF HOUSING** - 76 pages, Rs. 350 + 75 postage



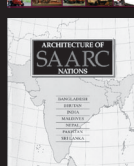
**STANDARDS AND SPECIFICATIONS FOR COST EFFECTIVE INNOVATIVE BUILDING MATERIALS AND TECHNIQUES** 128 pages, Rs. 200 + 75 postage



**GUIDELINES FOR IMPROVING WIND/ CYCLONE RESISTANCE OF HOUSING** - 50 pages, Rs. 350 + 75 postage



**DIRECTORY OF CONSTRUCTION EQUIPMENT AND MACHINERY MANUFACTURED IN INDIA** - 684 pages, Rs. 1500 + 200 postage



**ARCHITECTURE OF SAARC NATIONS** 196 pages, Rs. 250 + 75 postage

**Publications may be obtained by sending Demand Draft, drawn in favour of BMTPC payable at New Delhi**

## OBJECTIVES

1. To promote development, production, standardisation and large-scale application of cost-effective innovative building materials and construction technologies in housing and building sector.
2. To promote manufacturing of new waste-based building materials and components through technical support, facilitating fiscal concessions and encouraging entrepreneurs to set up production units in different urban and rural regions.
3. To develop and promote methodologies and technologies for natural disaster mitigation, vulnerability & risk reduction and retrofitting/reconstruction of buildings and disaster resistant planning of human settlements.
4. To provide support to professionals, construction agencies and entrepreneurs in selection, evaluation, upscaling, design engineering, skill-upgradation, and marketing for technology transfer from lab to land in the area of building materials and construction.

For further details visit us at our website : [www.bmtpc.org](http://www.bmtpc.org) or contact:

### The Executive Director

### Building Materials & Technology Promotion Council

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