

**BUILDING MATERIALS & TECHNOLOGY
PROMOTION COUNCIL
(BMTPC)**

OUTCOME BUDGET 2017-2018

Chapter – I

The Building Materials & Technology Promotion Council (BMTPC), registered as Society in 1990, is an organisation fully supported by the Ministry of Housing & Urban Poverty Alleviation, Govt. of India with the objective of bridging gap between the laboratory development and large scale field application of cost effective, sustainable building materials and housing technologies including disaster resistant construction practices.

Chapter – II

Sr. No	Name of Scheme/ Programmes	Objective/ Outcome	Outlay 2017-18 (in Rs. Crore)	Quantifiable Deliverables / Physical Outputs	Projected Outcomes	Processes/ Timeliness	Remarks/ Risk Factors
1	2	3	4	5	6	7	8
			4(ii)				
			Plan Budget				
1.	Building Materials & Technology Promotion Council	<ul style="list-style-type: none"> ▪ To promote development, standardization and large scale field application of proven innovative and emerging building materials and technologies. ▪ To work as a Training Resource Centre for capacity building and promotion of good construction practices ▪ To promote methodologies and technologies for natural disaster mitigation and management ▪ Project Management & Consultancy 	Rs. 18 crore	<ul style="list-style-type: none"> ▪ Identification, evaluation and promotion of 3 emerging housing technologies, construction of demonstration structures at 2 locations for mainstreaming of technologies ▪ Creation and maintenance of Knowledge Portal/ database on emerging technologies, products, process and providers ▪ Documentation of success stories of the projects using emerging technologies ▪ Initiation of 3 R&D Projects in the field of housing and building construction ▪ Award of Performance Appraisal and Certificates on 7 technologies under PACS ▪ Skill upgradation of 200 workers and capacity building of 200 professionals ▪ Disaster mitigation and management including Preparation of third edition of Vulnerability Atlas of India for 36 States/UTs ▪ Scrutiny of projects under Housing for All, appraisal of revised DPR's, monitoring & TPIM review of projects, capacity building of functionaries of state local bodies and monitoring of projects under RAY and 10% lump sum provision for NE Region. 	<ul style="list-style-type: none"> ▪ Availability of different proven and emerging technologies for construction of houses with speed and quality at affordable cost. ▪ Saving in high energy conserving materials ▪ Availability of skilled manpower ▪ Vulnerability reduction by adopting disaster resistant technologies ▪ Promote sustainable habitat design practices. 	March, 2018	<ul style="list-style-type: none"> ▪ Quality in form of output with respect to its usability. ▪ Non Availability of free land for the projects from the States. ▪ Lack of sensitivity among stakeholder s.

Chapter – III

BMTPC has reoriented its approach towards promotion of not only sustainable technologies through intensive evaluation, dissemination but also looking at emerging prefabricated housing technologies from within the country and abroad for social mass housing. Various Committees have been constituted for smooth and harmonious functioning of the Council.

Chapter – IV: Review of Past Performance

During the years 2015-16 and 2016-17, the Council has undertaken the following major activities:

Performance during 2015-16

1. BMTPC has identified and evaluated nine more construction systems under PACS. Eight more technologies are under evaluation. The development of knowledge portal on emerging technology is in progress. Two projects on development of design guidelines for EPS building system is in progress.
2. Demonstration housing project at Saraswathi Nagar, Chowtaplem Village, Venkatachalam Mandal, SPS Nellore District for construction of 36 houses with GFRG technologies have been initiated. The finishing work is in-progress. The State Governments of Odisha, Telengana, Bihar and Uttar Pradesh have also identified the land for implementation of the projects and the sites were found suitable after the visit. The work for construction of demonstration houses at Odisha have been awarded. The planning and designing in other states is in-progress.
3. BMTPC organized two conference/seminar and three capacity building programmes on Emerging Technologies at New Delhi, Vadodara, Jaipur and Bhubaneswar. Conducted five batches of Training of Trainers (TOTs) on Earthquake Resistant Design and Construction at BIPARD Campus, Patna. Organised two Indo-Norwegian Training Programme on “Seismic Design of Multi-storey Buildings: IS 1893 vs. Eurocode 8” at New Delhi. The Council completed preparation of updated Earthquake Hazard Zoning Map for the whole country upto district level based on Census data. The final Maps and Atlases have been submitted to NDMA. The process of printing has been initiated. The Council has also initiated preparation of third edition of Vulnerability Atlas of India. A Peer Group has been constituted by the Ministry.
4. The Council is actively involved in appraisal, monitoring and TPIM Review of various projects under RAY, JNNURM, Affordable Housing in Partnership (AHP) and 10% Lump-sum Provision for NER States including Sikkim.

5. BMTPC is working as secretariat of the Technology Sub-Mission. The Council has been designated as one of the agencies for Scrutiny of the projects.

Performance during 2016-17 (upto December 2016)

1. As a new initiative, BMTPC is constructing model demonstration houses in different parts of India using emerging technologies with the objective of spreading awareness about new technologies and disseminate technical know-how in the states. The status of the projects at various locations are as follows:

S.No.	Location	No. of DUs	Technology to be used	Status
1	Saraswathi Nagar, Nellore, Andhra Pradesh	36 (G+1) and 1 Community Centre	GFRG panels and Community Centre using Green technologies	Completed. Inaugurated by the Hon'ble Minister of HUPA on September 3, 2016.
2	Bhubaneswar, Odisha	32 (G+3)	EPS technology	The work upto ground floor slab level has been completed.
3	Bihar Shariff, Bihar	36 (G+2)	Coffer Structural Stay in Place Formwork System	After excavation work, the layout of the project is in progress.
4	Gachibowli, Hyderabad, Telangana	32 (G+3)	Coffer Structural Stay in Place Formwork System (16 houses) and Light Gauge Steel Frame System (16 houses)	The layout work is in progress.
5	Aurangabad Jagir, Lucknow, Uttar Pradesh	40 (G+1)	Stay in Place EPS based double walled panel System	The foundation stone of the project will be laid down by Shri Raj Nath Singh, Hon'ble Minister of Home Affairs, Govt. of India on January 3, 2017. The layout work is in progress.
6	Uttarakhand	32 (G+3)	Stay in Place EPS based double walled panel System / EPS based core panel system	The MDDA has provided design of their existing layout of the project with unit plan, soil survey and contour map of the site. The tender document is under preparation.
7	District Kanchipuram, Tamil Nadu	40 (G+3)	GFRG panel system	Site identified. the planning and designing of the project is under process.

2. BMTPC in its pursuit to evaluate and identify appropriate housing technologies suiting to different geo-climatic and hazard conditions of the country has identified nine more construction systems for further evaluation. As an ongoing activity, the Council has so far under PACS certified 16 new construction systems. BMTPC has developed a Knowledge Portal for sustainable Habitat, where users and technology providers can provide information on different sustainable materials and technologies used in making a habitat.

3. A Report on Guidelines for Utilization of C&D Waste in Construction for Dwelling Units and Related Infrastructure in housing schemes of the Govt. has been prepared. A Workshop on the subject was organized on 23rd September, 2016 at New Delhi.
4. The Council organised a National Workshop on Emerging Building Materials and Construction Technologies on November, 18, 2016 at New Delhi to bring various stakeholders, looking for emerging building materials and technologies and construction practices, on one platform to take stock of new developments in this area.
5. Draft Standard on design of GFRG Panel System prepared in association with IIT Madras was considered for finalization by Technical Committee of Bureau of Indian Standards. With certain modifications the draft Standard has been approved. In addition to the design manual and water proofing manual on GFRG technology, BMTPC has also developed Schedule of Rates (SOR) in association with IIT Chennai. SOR for Monolithic Concrete Construction using aluminium/plastic formwork has also been prepared.
6. Published (i) Special Issue of Newsletter “Nirman Sarika” on the theme of the World Habitat Day “Housing at the Centre”, (ii) Guidebook on Earthquake Resistant Design and Construction, (iii) Margdarshika for Masons – Rajmistry ke liye Dishanirdesh, and (iv) Pocket book on Emerging Construction Systems. BMTPC carrying out the documentation of those projects in which alternate emerging technologies have been used in Delhi-NCR, Maharashtra, Karnataka and West Bengal.
7. Published Earthquake Hazard Zoning Maps and Atlas of India in association with NDMA. A number of meetings of the Peer Group were held for preparation of third edition of Vulnerability Atlas of India. A three days Indo-Norwegian Training Programme on “Seismic Design of Multi-storey Buildings: IS 1893 vs. Eurocode 8” was organized by BMTPC jointly with Indian Institute of Technology, Roorkee (IIT Roorkee) and NORSAR, Norway at New Delhi from December 8–10, 2016. Under the guidance of the Ministry of Housing & Urban Poverty Alleviation, BMTPC in association with UNDP has brought out ‘A Handbook for Urban Managers on Disaster Risk Reduction’. The Handbook is being circulated to all States/UTs.
8. Organized a one-day sensitization Programme on “Good Construction Practices including Emerging Technologies” in Dehradun, Uttarakhand on 27th September, 2016 with the aim to inculcate good construction practices including multi hazard resistant construction to state officials. The Council has developed Guidebook (Margadarshika) for 5 trades i.e. Assistant Mason, Mason, Bar bender, Concreting Artisan & Shuttering Artisan in Hindi language. Organized two Training Programmes on use of Bamboo in Housing and Building Construction at Itanagar, Arunachal Pradesh in April, 2016 and Kaziranga, Assam in October, 2016 in association with respective State Governments.

9. BMTPC is working as secretariat of the Technology Sub-Mission under Pradhan Mantri Awas Yojana - Housing for All (Urban) Mission. The Council has been designated as one of the agencies for Scrutiny of the projects received under Housing for All (Urban) from various States. The second Open House discussion on the Technology Sub-Mission was organized by BMTPC on August 12, 2016 at New Delhi under the Chairmanship of Joint Secretary (Housing), MoHUPA. About 70 representatives from the various states and organizations participated in the discussion.

Chapter – V: Financial Review

The Ministry of HUPA sanctioned grants-in-aid amounting to Rs.500 lakhs, Rs.500 lakhs, Rs.499 lakhs, Rs. 1300 lakhs and Rs.500 lakhs (till 18th January 2017) for the years 2012-13, 2013-14, 2014-15, 2015-16 and 2016-17 respectively and the Utilization Certificates upto 2015-16 have been submitted to the Ministry. The overall expenditure relating to the activities is Rs.839 lakhs, Rs.1027 lakhs, Rs 821 lakhs, Rs.1131 lakhs and Rs. 906 lakhs (upto (18th January 2017)) for the years 2012-13, 2013-14, 2014-15, 2015-16 and 2016-17 respectively (till 18th January 2017).

Chapter – VI: Review of Performance

The Council, with the aim of assessing its impact and evolving an appropriate strategy for its growth and improving efficiency in its delivery of expected services, has subjected itself to four Reviews.

The last review was held under the chairmanship of the then Joint Secretary (Housing), MoUE&PA with members from Ministry and other organizations for review of BMTPC as per Expenditure Reforms Commission regarding Autonomous Institutions in 2003. The major recommendation of the Committee includes that BMTPC has made an impact in the construction and building materials industry and the same need to be continued to improve overall productivity and cost efficiency in this sector. The Assessment of work and performance clearly suggest that the BMTPC fully qualify for the type of assistance envisaged in the Expenditure Reforms Commission (ERC) recommendations on Autonomous Bodies. BMTPC should also work in the rural sector.

The Hon'ble Minister of Housing and Urban Poverty Alleviation during Board Meetings of BMTPC held on 15th February 2016 & 21st December, 2016 has also reviewed the progress of activities of the Council.