

# Annual Report

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## 2019–2020



**Building Materials & Technology Promotion Council**  
**Ministry of Housing & Urban Affairs**  
**Government of India**



# **Annual Report 2019-2020**



**Building Materials & Technology Promotion Council**

Ministry of Housing & Urban Affairs, Government of India

Core-5A, First Floor, India Habitat Centre, Lodhi Road

New Delhi – 110003



## FOREWORD

It gives me pride & pleasure to present the Thirtieth Annual Report of the Building Materials & Technology Promotion Council for the year 2019-2020, an autonomous organization under the auspices of Ministry of Housing & Urban Affairs, Govt. of India.

Since its humble inception in 1990, BMTPC has been in service of nation with a mandate to promote resource-efficient, climate-responsive sustainable building materials including disaster resistant construction practices, based on locally available materials and local skills for field level applications. In its journey towards bringing innovations in the building industry, BMTPC has aligned its goals & objectives in line with the aspirations of the nation several times and could successfully transfer know-how in the field. During the implementation of Pradhan Mantri Awas Yojana-Urban (PMAY(U)) since June 2015, the expedition to bring alternate and emerging construction systems from around the globe which can not only fast track delivery of livable sustainable houses but also comply with structural, functional and safety norms stipulated in Indian Standards gained importance. To accomplish this ardent task of providing affordable housing, the best construction systems which are time tested and proven elsewhere are being identified, studied, evaluated & certified by BMTPC. These systems are being straightway transplanted to suit Indian geo-climatic conditions for field level applications through demonstration construction, light house projects & handholding of states. There has been good response from public and private agencies including State Governments and these alternate systems are being now slowly picked up and used in construction projects.

For wider advocacy, better outreach & replication of emerging systems in the field, BMTPC is entrusted by MoHUA to undertake Demonstration Housing Projects in different parts of India using emerging technologies under PMAY(U). The objective is to spread awareness about new technologies and disseminate technical know-how in the States under the Pradhan Mantri Awas Yojana (Urban) – Housing for All Mission. The Demonstration Housing Projects at Nellore, Andhra Pradesh; Bhubaneswer, Odisha; Bihar Shariff, Bihar; Aurangabad Jagir, Lucknow, Uttar Pradesh; and Hyderabad, Telangana have been completed. During the year, the Council started two new Demonstration Housing Projects (DHPs) one at Panchkula, Haryana and second at Agartala, Tripura. Further, with the approval of Central Sanctioning & Monitoring Committee (CSMC), two DHPs namely at Chimbhel, Goa and Hathijan, Gujarat, have also been initiated. During the course of implementation, the state level sensitization programmes & workshops are also organized along with hand-holding of State engineers, professionals & policy makers so that emerging technologies can be mainstreamed.

Through Gazette Notification (No. I-16011/5/99 H-II in the Gazette of India No. 49 dated December 4, 1999), to promote innovation in the construction sector, BMTPC has been evaluating and certifying prospective construction systems & new materials and products under PACS. During the year, emerging technologies namely, Integrated Hybrid Solution – One and Permanent Wall Forms have been awarded certificate under the Performance Appraisal Certification Scheme (PACS) and a number of products/systems are being evaluated. Till date, BMTPC has issued Performance Appraisal Certificates (PAC) to 69 products/systems covering various products, materials & technologies. With the efforts of the Ministry and BMTPC, CPWD has issued specifications and schedules of rates on number of emerging technologies.

BMTPC is working as a technical resource institution for Ministry of Housing & Urban Affairs Mission schemes and extending its technical support for appraisal, monitoring, Third Party Inspection & Monitoring (TPIM) and handholding of ULBs under PMAY(U). Technology Sub-Mission under Pradhan Mantri Awas Yojana (Urban) aims to mainstream innovative and green technologies for sustainable development across states. BMTPC is the technical secretariat for the sub-mission and assists Ministry and States for deploying disaster resistant, energy efficient and environment friendly technologies. The Council has also been designated as appraisal and monitoring agency under PMAY(U) for projects in various states/UTs falling in Earthquake Zone IV and Zone V. The Council is also hand holding various State Govts. and other agencies in promotion and adoption of emerging technologies for mass housing.

BMTPC worked hand-in-hand as technical partner in the Global Housing Technology Challenge – India (GHTC-India), organised by the Ministry of Housing & Urban Affairs, Government of India. As part of the Technical Evaluation Committee (TEC), BMTPC pursued and prepared technical details of Proven Technology Providers. A basket of 54 proven technologies has been shortlisted under GHTC India in six broad categories by TEC. The proven technologies are now being showcased through execution of Light House Projects (LHPs) at six locations.

These LHPs will act as live laboratories to establish innovative and green construction practices across India and will help in sustainable construction. The Council has been designated as a Technical Partner by the Ministry and nominated for implementation of LHPs in close coordination with respective State Governments. BMTPC is regularly monitoring and interacting with the agencies in close coordination with the Ministry for any query resolution and smooth operationalization of LHPs. Under GHTC-India, it has also been planned to incubate and accelerate identified potential future technologies through Affordable Sustainable Housing Accelerator (ASHA) – India.

A National Urban Housing Fund (NUHF) has been created in BMTPC which aggregates the loans from lending agencies or financial institutions with the approval of Cabinet. Funds raised through Extra Budgetary Resources (EBR) for NUHF are being loaned to BMTPC for its further disbursement as Central assistance to State/UT Governments and as subsidy to the CNAs under the CLSS vertical of the Mission. A Data Resource cum Monitoring Centre (DRMC) has also been established through BMTPC for monitoring work, data analysis, compilation & dissemination, generation of periodic reports in electronic form, undertake field visits/physical verification in a friendly manner.

One of the forte of BMTPC has been Disaster Mitigation & Management. BMTPC is committed to promote the proactive approach towards it and has been in the forefront in educating professionals and creating mass awareness amongst various stakeholders including common man. BMTPC brought out the third digital edition of Vulnerability Atlas of India which was released by Hon'ble PM on 2<sup>nd</sup> March 2019 during inauguration of GHTC-India. The Council is organizing Thematic Workshop on Vulnerability Atlas of India and Disaster Resistant Design & Construction Practices in different parts of country. During the year, six workshops have been organized at various locations. An e-Course on Vulnerability Atlas of India has also been started jointly with School of Planning & Architecture, New Delhi. BMTPC is constantly pursuing with stakeholders and departments for giving necessary directions to their engineers and architects for undertaking the course.

Like preceding years, on the occasion of World Habitat Day 2019, the Council brought out the Special Issue of "Nirman Sarika" on the theme "Frontier Technologies as an Innovative tool to Transform Waste to Wealth" chosen by the UN-Habitat for the year. A painting competition for Differently Abled Children was also organised and the winners were felicitated during the World Habitat Day celebrations. In order to strengthen the knowledge base in the construction sector, the website of the Council is being updated regularly for inclusion of latest activities and information. There is good response on website in the form of general enquiry about product and services. A Certificate Course on Use of Innovative Construction Technologies titled "NAVARITI" have been conceptualized by BMTPC and School of Planning & Architecture, New Delhi which is ready for the launch. The Council is also using social media platform (Twitter : @bmtpcdelhi; Facebook: @bmtpc.mhwa; YouTube: BMTPC) to disseminate the information about the innovative building materials and disaster resistant technologies including other activities.

It is my privilege to acknowledge the valuable guidance, support and encouragement received from the President (Hon'ble Minister of Housing & Urban Affairs) and Members of the Board of Management, the Chairman (Secretary, Ministry of Housing & Urban Affairs) and Members of the Executive Committee of BMTPC and Ministry of Housing & Urban Affairs for various programmes undertaken and executed by the Council. BMTPC is grateful to NITI Aayog, Parliamentary Standing Committee on Urban Development, PMAY(U)-HFA Mission Directorate, MoHUA, various State Govts., Municipal Corporations and Urban Local Bodies, Ministry of Home Affairs, Ministry of DONER, Ministry of F&HW, NDMA, NIDM, MOS&PI, DST, CSIR, IITs, CEPT, IPIRTI, CBRI, SERC, ICI, SPA, HUDCO, BIS, NHB, NCHF, HPL, CGEWHO, CPWD, NSIC, CIDC and RICS school of Built Environment for their continued support and interest in strengthening and supporting the efforts of the Council over successive years.

I would also like to place on record my deep appreciation for the cooperation of officers of BMTPC and its staff members for timely implementation of the Council's activities. The Council acknowledges the support and cooperation received from all officers and staff members of the Ministry of Housing & Urban Affairs, which helped the Council to meet its mandate and further its objectives.

  
(Dr. Shailesh Kr. Agrawal)  
Executive Director

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## **Vision**

“BMTPC to be world class knowledge and demonstration hub for providing solutions to all with special focus on common man in the area of sustainable building materials, appropriate construction technologies & systems including disaster resistant construction.”

## **Mission**

“To work towards a comprehensive and integrated approach for promotion and transfer of potential, cost-effective, environment-friendly, disaster resistant building materials and technologies including locally available materials from lab to land for sustainable development of housing.”

## INTRODUCTION

Building Materials & Technology Promotion Council (BMTPC), established in 1990, is an autonomous organisation under the administrative control of Ministry of Housing & Urban Affairs, Government of India. BMTPC is mandated to promote resource-efficient, climate resilient, disaster resistant construction practices including emerging building materials and construction technologies for field level applications. BMTPC is also one of the resource institution for the Ministry to provide S&T support in the area of innovative building materials & construction technologies and disaster mitigation & management.

To realize its desired objectives, BMTPC embarks upon multi-faceted activities through networking with academic and research institutions, public & private sector, NGOs, foreign institutions for successful transfer of building materials and housing technologies in the field. Over the years, the Council has been striving to create enabling eco-system for mainstreaming innovative, cost-effective, environment-friendly and energy-efficient alternate building materials and technologies in the construction industry. The Council also undertakes construction of model demonstration houses including other structures in different parts of country to showcase field level application of emerging construction systems and reach out to the stakeholders. In its technology development, promotion and dissemination efforts, the Council has promoted various technologies for use in housing and building construction including bamboo based housing solutions. The Council also constructed demonstration structures in the North Eastern Region and helped in setting up Bamboo Mat Production Centres to make available the bamboo mats for the production of bamboo mat related products such as corrugated sheets, bamboo boards, etc. helping in skill development and employment generation.

The Council in recent years has reoriented its approach towards promotion of not only sustainable technologies through identification, evaluation & dissemination but also propagating emerging industrialised housing systems from within the country and abroad for affordable mass housing. The Council is working towards bringing various emerging technologies, which are successful elsewhere in the world, to bring resource efficiency, economy, quality, environmental protection, speed and sustainability in housing construction.

BMTPC is actively involved in disaster mitigation and management activities and working in close liaison with NDMA, NIDM and other Institutions. Apart from bringing out the first ever Vulnerability Atlas of India in 1997 and 2006, the Council brought out the third edition of its Vulnerability Atlas of India in 2019 which was released by Hon'ble Prime Minister of India.

In order to educate and spread awareness about the Vulnerability Atlas of India and Disaster resistant design & construction practices, the Council organised workshops designed for engineers, architects and other stakeholders dealing with housing and infrastructure. An E-Course on Vulnerability Atlas of India was also started in association with School of Planning & Architecture, New Delhi. Besides, the Council regularly publishes valuable guidelines/ manuals on disaster resistant construction. Towards earthquake preparedness and disseminate earthquake resistant construction practices and seismic retrofitting, the Council has undertaken retrofitting of few buildings including life line buildings and organised training programmes for professionals.

Technology Sub-Mission under Pradhan Mantri Awas Yojana (Urban) aims to mainstream innovative and green technologies for sustainable development across states. BMTPC is the tech-

nical secretariat for the sub-mission and assists Ministry and States for deploying disaster resistant, energy efficient and environment friendly technologies. The Council has also been designated as appraisal and monitoring agency under PMAY(U) for projects in various states/UTs falling in Earthquake Zone IV and Zone V. The Council is also hand holding various State Govts. and other agencies in promotion and adoption of emerging technologies for mass housing. BMTPC is also technical partner in the Global Housing Technology Challenge – India (GHTC-India), launched by the Ministry of Housing & Urban Affairs, Government of India.

A National Urban Housing Fund (NUHF) has been created in BMTPC which is aggregating loans from lending agencies / financial institutions. Funds raised through Extra Budgetary Resources (EBR) for NUHF are being loaned to BMTPC for its further disbursement as Central assistance to State/UT Governments and as subsidy to the CNAs under the CLSS vertical of the PMAY(U). A Data Resource cum Monitoring Centre (DRMC) is also being operationalised by BMTPC under PMAY(U) for monitoring, data analysis, compilation & dissemination, generation of periodic reports in electronic form, and other related ICT activities.

## Objectives

- **Building Materials & Construction Technologies:** To promote development, standardization, mechanization and large scale field application of proven innovative and emerging building materials and technologies in the construction sector.
- **Capacity Building and Skill Development:** To work as a Training Resource Centre for capacity building and promotion of good construction practices to professionals, construction agencies, artisans and marketing of building technologies from lab to land.
- **Disaster Mitigation & Management:** To promote methodologies and technologies for natural disaster mitigation, vulnerability & risk reduction and retrofitting/reconstruction of buildings and disaster resistant planning for human settlements.
- **Project Management & Consultancy:** To undertake project management and consultancy services including appraisal, monitoring and third party inspection of housing projects under the various Central/State Schemes.

## Thrust Areas

- Identification, evaluation and promotion of proven and emerging housing technologies available for housing sector nationally and internationally.
- Promoting speed, economy, efficiency and quality in construction.
- Creating enabling eco-system for mass application of technologies through upscaling of technologies, know-how acquisition, absorption and dissemination.
- Field level application of environment-friendly, energy-efficient and disaster resistant technologies for proven, locally available and emerging technologies, through demonstration construction.
- Formulation of Specifications, Schedules, Standards on proven building materials/technologies including emerging technologies/systems.
- Documentation of benefits, durability and acceptability of cost effective and innovative building materials and technologies.
- Skill upgradation of professionals and construction workers through capacity building programmes, training programmes, seminars, conferences, workshops, exhibitions nationally as well as internationally.
- Promoting disaster resistant construction technologies.

- Appraisal, monitoring and third party inspection of housing projects including undertaking operationalization of Data Resource cum Monitoring Centre (DRMC) under PMAY(U)
- Implementation of National Urban Housing Fund (NUHF) through Extra Budgetary Resources under PMAY(U)
- Project management and consultancy services.
- Publication of user manuals, guidelines, compendiums, directories, brochures, techno-feasibility reports, video films, demonstration CDs, interactive website, blogs including documentation of success stories.

## Administration and Management

BMTPC's administrative structure comprises of three-tiers for discharging its administrative and technical duties with following verticals:

- Board of Management headed by the Hon'ble Minister of Housing & Urban Affairs
- Executive Committee headed by the Secretary, MoHUA
- Executive Director as head of BMTPC

The Board of Management of the Council consists of 16 Members from various Ministries and related organizations. The Executive Committee consists of 9 Members from Ministry of Housing & Urban Affairs, Housing & Urban Development Corporation (HUDCO), Central Building Research Institute (CBRI) and Technical Experts. The list of members of the Board of Management and Executive Committee is hereunder:

### Board of Management (as on 31.3.2020)

S. No.	Members	
1	Shri Hardeep S Puri Hon'ble Minister of State (I/C) for Housing & Urban Affairs, Government of India	President
2	Shri Durga Shanker Mishra Secretary Ministry of Housing & Urban Affairs, Government of India	Vice-President
3	Shri Ashok Kr. Jain Senior Advisor (RD & HUA) NITI Aayog, Government of India	Member
4	Dr. M. Nagaraj Chairman & Managing Director Housing & Urban Development Corporation	Member
5	Dr. Arun Kumar Panda Secretary, Ministry of Micro, Small & Medium Enterprises, Government of India	Member
6.	Prof. Ashutosh Sharma Secretary, Ministry of Science & Technology, Government of India	Member
7	Dr. Inderjeet Singh Secretary, Ministry for the Development of North Eastern Region, Government of India	Member
8	Shri G.V.V. Sarma Secretary, National Disaster Management Authority, Government of India	Member
9	Dr. Shekhar C. Mande Director General Council of Scientific & Industrial Research Government of India	Member

S. No.	Members	
10	Shri P.K.Vats Director General Central Public Works Department, Government of India	Member
11	Prof. K.N. Satyanarayana Director Indian Institute of Technology (IIT) Tirupati	Member
12	Prof. Sudhir K. Jain Director Indian Institute of Technology (IIT) Gandhinagar	Member
13	Shri Shiv Das Meena Addl. Secretary (Housing) Ministry of Housing & Urban Affairs, Government of India	Member
14	Shri Shyam S. Dubey Joint Secretary & FA, Ministry of Housing & Urban Affairs, Government of India	Member
15	Shri Amrit Abhijat Joint Secretary & Mission Director (HFA) Ministry of Housing & Urban Affairs, Government of India	Member
16	Dr. Shailesh Kr. Agrawal Executive Director, Building Materials & Technology Promotion Council	Member Secretary

### Executive Committee (as on 31.3.2020)

S. No.	Members	
1	Shri Durga Shanker Mishra Secretary Ministry of Housing & Urban Affairs, Government of India	Chairman
2	Shri Shiv Das Meena Addl. Secretary (Housing) Ministry of Housing & Urban Affairs, Government of India	Member
3	Shri Shyam S. Dubey Joint Secretary & FA, Ministry of Housing & Urban Affairs, Government of India	Member
4	Shri. Amrit Abhijat Joint Secretary (HFA) Ministry of Housing & Urban Affairs, Government of India	Member
5.	Dr. M. Nagaraj Chairman & Managing Director, Housing & Urban Development Corporation	Member
6.	Dr. N. Gopalakrishnan Director Central Building Research Institute, Roorkee	Member
7.	Prof. Pradipta Banerji Head, Centre for Urban Science & Engineering Deptt. of Civil Engineering, IIT Bombay	Member
8.	Shri J.S. Gopinath Director & Chief Architect JSKM Architecture, Hyderabad	Member
9.	Dr. Shailesh Kr. Agrawal Executive Director, Building Materials & Technology Promotion Council	Member - Secretary

## MAJOR INITIATIVES AND ACTIVITIES DURING THE YEAR 2019-2020

### I. MODEL DEMONSTRATION CONSTRUCTION USING EMERGING TECHNOLOGIES

#### I. Demonstration Housing Projects using Emerging Technologies in different parts of the country

The Council has been disseminating proven and emerging building materials & technologies in different regions of the country through identification, evaluation, standardization, certification, capacity building and field level application of such technologies. The council, during recent past, has constructed a number of demonstration houses in various parts of the country. The efforts of the Council have helped in building up confidence and acceptability of proven and emerging technologies in public & private construction agencies, professionals etc.

BMTPC is constructing demonstration houses in different parts of India using emerging technologies with the objective of spreading awareness and build confidence about new technologies and disseminate technical know-how in the states under Pradhan Mantri Awas Yojana (Urban). The DHP at Bhubaneswar, Odisha has already been handed over to the State Govt. However, after the completion of DHPs at Gachibowli, Hyderabad, Telangana; Aurangabad Jagir, Lucknow, Uttar Pradesh; and Bihar Shariff, Bihar, these DHPs are being handed over to the respective State Governments for which respective State Govts. are being constantly requested for taking over the completed projects. During the year, the Council started construction of two new DHPs at Panchkula, Haryana and Agartala, Tripura and initiated two more DHPs at Ahmedabad, Gujarat and Goa.

#### *Demonstration Housing Project at Panchkula, Haryana*

Usage of the project	Working women hostel (on rental basis)
Nodal agency	Municipal Corporation Panchkula
Location of the project	Sector 27, Panchkula
No. of Dwelling units (DUs)	40 Nos. (G+3)
Other provisions	Guest Room-I, Medical Room-I, Care Taker Room-I, Daycare Centre-I, Common Room/Dining Room - I and Laundry-I
Total Plot Area	3571.81 Sqmt
Plot Area for DHP	1412.36 Sqmt.
Carpet Area of a unit	21.86 Sqmt.
Total Built up Area of unit	31.51 Sqmt.
Total Covered Area	2015.95 Sqmt. or 21691.62 Sqfts.
Technology being Used	Light Gauge Steel Framework System (LGSFS) with Cement Fibre board on both side of walls and infill of rock wool.
Infrastructure Components	Roads & pavements, Boundary Wall with Gate, Sewerage, External water supply, Drainage, Rain water Harvesting, External Electrification, Solar street Lights, Landscaping etc.



Excavation of foundation at pits at Demonstration Housing Project being constructed at Panchkula, Haryana using Light Gauge Steel Framework System (LGSFS) with Cement Fibre board on both side of walls and infill of rock wool

### **Demonstration Housing Project at Agartala, Tripura**

Usage of the project	Rental basis (For social cause)
Nodal agency	Urban Development Department, Tripura
Location of the project	Khatian No.- 2/18 Plot No. 2337-2339, Mouja-Narsingarh, Tehsil- Gandhigram, Agartala, West Tripura
Technology being Used	Structural Stay In Place Steel Formwork System (Coffor)
Total plot area	2363.5 Sq.mts.
No. of Dwelling units (DUs)	40 Nos. (G+1)
Other provisions	Office -1, Medical Room-1, Care Taker Room-1, Dining Room – 1, Kitchen – 1, Activity Room – 2.
Carpet area of a unit	21.86 Sq.mts.
Total Built up area of unit	29.90 Sq.mts.

Ground coverage area	916.87 Sq.mts.
Total covered area (all floors)	1833.74. Sq.mts. or 19731.04 Sqfts.
Infrastructure components	Roads & pavements, sewerage, septic tank, external water supply, underground water tank, Drainage, Rain water harvesting, external electrification, solar street lights, Landscaping, Boundary Wall with Gate etc.

The construction work at both DHPs have been started and foundation work is in process.

Further, with the approval of CSMC, two DHPs namely at Chimbhel, Goa and Hathijan, Gujarat, have also been initiated. Detailed Project Reports were prepared for these two Demonstration Housing Projects for consideration by CSMC of PMAY-Urban. Besides, field visits were undertaken to assess the suitability of sites for construction of demonstration housing projects in interested states along with the officials of re-



*Excavation of foundation pits and laying of PCC at Demonstration Housing Project being constructed at Agartala, Tripura using Structural Stay In Place Steel Formwork (Coffor)*

spective State Governments. Now the tenders for these two DHPs have been invited through CPP Portal of NIC and technical bids have been opened. Financial bids will be opened after the technical evaluation of the received bids.

Further, the other States are also being requested to showcase innovative technologies through Demonstration Housing Projects and adopt emerging technologies in their construction projects.

***Technical Group for monitoring the progress of Demonstration Housing Projects and propagating emerging technologies***

A Technical Group comprising of representative of SLNA, expert from local IIT /NIT/Research Institution, engineer member from ULB and BMTPC have been constituted to oversee the progress of Demonstration Housing Projects (DHPs) at Panchkula, Haryana and Agartala, West Tripura and also to propagate emerging technologies used in the DHP for wider acceptability within the State Government.

## II. PRADHAN MANTRI AWAS YOJANA – HOUSING FOR ALL (URBAN) MISSION

### I. BMTPC's Role in Implementation of the Pradhan Mantri Awas Yojana – Housing for All (Urban) Mission

The Ministry of Housing & Urban Affairs, Government of India is implementing “Pradhan Mantri Awas Yojana (Urban) - Housing for All” Mission. The Council has been designated as appraisal and monitoring agency under Pradhan Mantri Awas Yojana (Urban) for projects in various States/UTs falling in Earthquake Zone IV and Zone V and undertake TPIM review and capacity building of functionaries of state local bodies. During the year, the Council has undertaken the following activities as per the direction of the Ministry:

#### **Site Scrutiny along with DPR Desk Scrutiny of projects under BLC vertical of PMAY**

1. Desk & Site Scrutiny for construction of 129 DUs under Beneficiary Led Construction at Mairang, Meghalaya during June 27 – July 1, 2019.
2. Desk & Site Scrutiny for construction of 765 New DUs at Nongstoin Town, Meghalaya under vertical four (Beneficiary Led Construction) during June 27 – July 1, 2019.
3. Desk & Site Scrutiny of Dibrugarh DA (1033 New Construction houses) in the State of Assam during July 9 - 10, 2019.
4. Desk & Site Scrutiny of the Tuli (577 New Construction houses) projects in the State of Nagaland during 11-14 July, 2019.
5. Desk & Site Scrutiny of the Tsemnyu (95 Enhancement houses) projects in the State of Nagaland during 11-14 July, 2019.
6. Site Scrutiny & Desk Scrutiny of Dhemaji MB (1569 New Construction Houses) projects under PMAY (U) in the State of Assam during 25-27 July, 2019.
7. Site Scrutiny & Desk Scrutiny of 17 BLC (New Construction) Projects for Construction of 944 nos. of Dwelling Units (DUs) under PMAY (U) at Palin, Kradaadi in the State of Arunachal Pradesh during 30-31 July, 2019.
8. Site Scrutiny & Desk Scrutiny for construction of 160 DUs under beneficiary led Construction (Enhancement) & 59 New Construction at Bilaspur Town, Himachal Pradesh during 29-30 August, 2019.
9. Site Scrutiny along with DPR Desk Scrutiny of Projects under BLC (New) (399 DUs) vertical of PMAY (U) at Manglaur, Haridwar in the State of Uttarakhand during 26-27 September, 2019.
10. Site Scrutiny along with DPR Desk Scrutiny of project of 1419 DUs New Construction in Dhubri-Gauripur Development Authority (DGDA), Assam under BLC vertical of PMAY (U) during 14-15 November, 2019.
11. Site Scrutiny along with DPR Desk Scrutiny of project of (717 DU's New House) in Pfutsero TC, Nagaland under BLC during 16-18 November, 2019.
12. Site Scrutiny along with DPR Desk Scrutiny of project of (120 Enhancement houses) in Pfutsero TC, Nagaland under BLC during 16-18 November, 2019.
13. Site Scrutiny along with DPR Desk Scrutiny of Projects for Construction of 380 DUs under BLC vertical of PMAY (U) at Kotdwar, Uttarakhand during 02-05 December, 2019.

### **Technology Sub-Mission**

A Technology Sub-Mission has been set up under “Housing for All (Urban) Mission” with the objective of providing “Sustainable Technological Solutions for Faster & Cost Effective Construction of Houses suiting to Geo-Climatic and Hazard Conditions of the Country”. The Technology Sub-Mission facilitates adoption of modern, innovative and green technologies and building material for faster and quality construction of houses. Technology Sub-Mission also assist States/Cities in deploying disaster resistant and environment friendly technologies in collaboration with IITs/ NITs/SPAs. BMTPC is working as Technical Secretariat of the Technology Sub-Mission.

### **Adoption of New & Emerging Technologies in Construction by CPWD**

In order to facilitate adoption of alternate and emerging technologies by the State Governments, Ministry of Housing & Urban Affairs has pursued CPWD, BIS and state departments to come out with notifications, circulars, SORs, specifications etc. which will authorize State Governments to use these new construction technologies in housing projects.

As reported earlier, in consultation with BMT-PC, CPWD has approved 16 new and emerging technologies for adoption in CPWD works for the benefit of all users vide OM No. 133/ SE(TAS)/DSR/ 2019/115-H dated 12.03.2019:

- 1 Monolithic concrete construction system using Aluminium Formwork
- 2 Monolithic concrete construction system using Plastic-Aluminium Formwork
- 3 Reinforced EPC Panel Systems
- 4 Light Gauge Sheet Framed Structures (LGSF)
- 5 Industrialized 3-S system using RCC precast with or without shear walls, columns, beams, cellular light weight concrete slabs/ semi-precast solid slab

- 6 Speed floor system
- 7 Glass Fibre Reinforced Gypsum (GFRG) Panel Building System
- 8 Factory made Fast Track Modular Building System
- 9 Non Asbestos fibre Reinforced aerated sandwich wall/roof/floor light weight solid core panel (Prefabricated Fibre Reinforced sandwich panels)
- 10 EPS Cement sandwich wall/roof/floor light weight solid core panel (Advanced Building System-EMMEDUE)
- 11 Block Masonry using AAC blocks
- 12 Block Masonry using Fly ash bricks
- 13 Reinforced Soil Technology using Technical Textiles
- 14 Use of self-compacting Concrete
- 15 Use of Confined Masonry
- 16 Use of C&D waste Products in Construction

In addition to the above, following 13 new and emerging technologies have also been approved by CPWD vide OM No.133/SE(TAS)/DSR/2019/376-Hi dated 17.09.2019:

1. Advanced building system-EMMEDUE
2. Rapid panels
3. QuickBuild 3D panels
4. Concrete panel system
5. Bau Panel system
6. Flyash EPS (Beads) cement sandwich panels
7. Rigid EPS (Cellular plastic material) blocks
8. Light Gauge Steel Framed Structure with infill Concrete panel technology
9. SRPL Building System (Waffle-Crete)
10. Precast Large concrete Panel System
11. Walltech Hollow core concrete panel
12. Robomatic Hollow concrete wall panels
13. Stamping concrete

So far, CPWD has approved 29 new and emerging technologies for housing and building construction.

### **Global Housing Technology Challenge – India (GHTC-India)**

BMTPC provided technical support for Launch of GHTC-India on 14th January, 2019 and main event of Global Housing Technology Challenge – India (GHTC-India) organized from 2-3 March, 2019 at New Delhi. Under GHTC-India proven innovative and alternate construction technologies along with future potential sustainable technologies have been shortlisted. As part of the Technical Evaluation Committee (TEC), BMTPC pursued and prepared technical details of Proven Technology Providers. A basket of 54 proven technologies has been shortlisted under GHTC India in six broad categories by TEC. The proven technologies will now be showcased through execution of Light House Projects (LHPs). These LHPs will act as live laboratories to establish innovative and green construction practices across India and will help in sustainable

construction. The Council has been designated as a Technical Partner by the Ministry and nominated for implementation of LHPs in close co-ordination with respective State Governments. Under GHTC-India, it has also been planned to incubate and accelerate identified potential future technologies through Affordable Sustainable Housing Accelerator (ASHA) - India.

### **Light House Projects using Emerging Technologies**

Subsequent to the award of all six Light House Projects (LHPs) across six locations namely, Indore, Rajkot, Chennai, Ranchi, Agartala and Lucknow, using distinct technologies from each of the six broad categories as shortlisted under GHTC-India, the contracting agencies except for LHP at Ranchi, are now in different phases of approval of architectural drawings, environmental impact assessment, in discussion with IITs/NITs



*Meeting of Technical Evaluation Committee (TEC) constituted to select Innovators for Acceleration & Incubation support under GHTC-INDIA under the Chairmanship of the then DG, CPWD on July 3, 2019 at New Delhi*

for vetting of structural drawings etc. As per the guidelines of the Light House Projects, BMTPC is the implementing agency for these LHPs. As per the Contract agreement, BMTPC prepared & invited limited bids for Third Party Quality Assurance of LHPs from IITs/ NITs/ CSIR Labs & Central PSUs. BMTPC is regularly monitoring and interacting with the agencies in close coordination with the Ministry for any query resolution and smooth operationalization of LHPs. The details of these LHPs are as follows:

Location	Technology	No. of Houses
Indore	Prefabricated Sandwich Panel System	1,024
Rajkot	Monolithic Concrete Construction System	1,144
Chennai	Precast Concrete Construction System- Precast Components Assembled at Site	1,152
Ranchi	Precast Concrete Construction System- 3D Pre-Cast Volumetric	1,008
Agartala	Light Gauge Steel Structural System & Pre-Engineered Steel Structural System	1,000
Lucknow	Stay in-place Formwork System	1,040

### **Data Resource cum Monitoring Centre (DRMC)**

The Ministry of Housing & Urban Affairs (MoHUA) through BMTPC, has set up a Data Resource cum Monitoring Centre (DRMC) under PMAY(U) for monitoring, data analysis, data compilation, data dissemination, generation of periodic reports in electronic form, under-

take field visits/physical verification in a friendly manner and has also established a separate Monitoring Cell under the Mission Directorate in Nirman Bhawan for ease of data collection, analysis and generation of various housing and infrastructure reports, progress of construction etc. on day to day basis.

### **Expo-cum-Conference “New Urban India (NUI): Promoting Technology & Innovation in Housing”**

MoHUA proposed to organize “New Urban India (NUI): Promoting Technology & Innovation in Housing”, Expo-cum Conference under the ambit of GHTC-India for promoting indigenous & innovative construction technologies, materials & processes for low & mid-rise (upto G+3) affordable houses such as those constructed under BLC vertical of PMAY(U). NUI Expo-cum-Conference will ensure exposure and visibility to technology providers, provide an opportunity for cross learning, enable better adoption and market linkages, and to achieve scale. The event will be an integral part of the Construction Technology Year 2019-20 which was declared by the Hon’ble Prime Minister during CTI 2019.

The Council was involved for preparation and finalization of application forms for Materials & Technologies Providers to capture important attributes of materials/technologies. The application Form was uploaded on NUI Web Site. The Council was also involved for identification, listing, interaction and regular follow-up with Indian technology providers for ensuring their participation in the event. The Expo-cum-Conference was proposed to be held from 27-29 March 2020 at Vigyan Bhawan, New Delhi, however, on account of Covid-19 pandemic, it is being deferred.

### III. IMPLEMENTATION OF NATIONAL URBAN HOUSING FUND (NUHF)

With the approval of Cabinet, a National Urban Housing Fund (NUHF) has been created in BMTPC which is aggregating loans from lending agencies or financial institutions. Funds raised through EBR for NUHF is being loaned to BMT-PC for its further disbursement as Central assistance to State/UT Governments and as subsidy to the CNAs under the CLSS vertical of the Mission as per orders of controlling Ministry.

During the F.Y. 2019-20, an amount of Rs. 15,000 crore has been received as EBR from NSSF and the same has been disbursed as per the sanction

letters issued by the Ministry of Housing & Urban Affairs. Besides, during the year, an amount of Rs. 3084 crore (approx.) has been received for payment of interest on EBR and has been disbursed to HUDCO and NSSF.

As such, Rs. 23,000 crore & Rs. 20000 crore (totaling to Rs. 43,000 crore) has been received as EBR from NSSF & HUDCO, respectively, from March 2018 to March 2020 and the same has been disbursed as per the sanction letters issued by the Ministry of Housing & Urban Affairs, Government of India.



*Signing of MoU with Ministry of Housing & Urban Affairs regarding release of Rs.5000 crore towards EBR for Central Assistance to the States under PMAY-U*

## IV. DISASTER MITIGATION AND MANAGEMENT

### I. Thematic Workshop on Vulnerability Atlas of India and Disaster Resistant Design & Construction Practices

As reported earlier, the Council has published the digital version of 3rd edition of Vulnerability Atlas of India. The Hon'ble Prime Minister of India released the digital version of Third Edition of Vulnerability Atlas of India on the occasion of Global Housing Technology Challenge - India (GHTC-India), Construction Technology India 2019 Expo-cum-Conference on 2nd March, 2019 at New Delhi. The third edition of Vulnerability Atlas of India is collation of the existing hazard scenario for the entire country and presents the digitized State/UT-wise Hazard Maps with respect to Earthquakes, Winds & Floods for district-wise identification of vulnerable areas. This edition contains additional digitized maps for Thunderstorms, Cyclones and Landslides. The Atlas also presents the district-wise Housing Vulnerability Risk Tables based on wall types and roof types as per 2011 Census Housing data. The Atlas is a useful tool not only for public but also for urban managers, State & National Authorities dealing with disaster mitigation and management.

As desired by the Ministry of Housing & Urban Affairs, the Third Edition of the Vulnerability Atlas of India has been made available at <http://www.bmtpc.org> with links on websites of Ministry of Housing & Urban Affairs i.e. <http://mohua.gov.in> and <https://ghtc-india.gov.in/> for wider access by various stakeholders.

In order to educate about the Vulnerability Atlas of India and Disaster resistant design & construction practices, the Council has organized state level one-day workshops. These workshops are designed for engineers, architects and other stakeholders dealing with housing and buildings.

The Thematic Workshops on Vulnerability Atlas of India and Disaster Resistant Design & Construction Practices are being organised across India and during the year six such workshops have been organised:

- The first thematic workshop was organized on May 3, 2019 at New Delhi for educational institutions under Ministry of Human Resource Development. More than 150 participants mainly senior faculty members from 56 educational institutions such as IITs, NITs, Central Universities, IISER, North East Universities, etc. participated in the programme. In addition, engineers from EPIL Ltd. also participated. The programme was inaugurated by Add. Secretary (Housing), MoHUA and Member, NDMA in the august presence of JS&MD (HFA), MoHUA and Director, MoHRD. On the occasion, a Brochure on Vulnerability Atlas of India was also released.
- The second Thematic Workshop on Vulnerability Atlas of India and Disaster resistant design & construction practices for engineers, designers and planners of Engineers India Ltd. (EIL) was organized on 4th June 2019 at EIL campus Gurugram. The workshop was attended by more than 120 participants.
- The third Thematic Workshop on Vulnerability Atlas of India and Disaster resistant design & construction practices was organized in association with Town & Country Planning Department Puducherry on 11th September, 2019 at Puducherry. The workshop was inaugurated by Hon'ble Chief Minister, Puducherry and Secretary, Ministry of Housing & Urban Affairs, Govt. of India. The workshop was attended by more than 250 participants from State Government, Chartered Engineers, Faculty



*Thematic Workshops on Vulnerability Atlas of India and Disaster Resistant Design & Construction Practices on May 3, 2019 at New Delhi*



*Thematic Workshops on Vulnerability Atlas of India and Disaster Resistant Design & Construction Practices on June 4, 2019 at EIL campus Gurugram*



*Hon'ble Chief Minister, Puducherry and Secretary, Ministry of Housing & Urban Affairs, Govt. of India inaugurating the Thematic Workshops on Vulnerability Atlas of India and Disaster Resistant Design & Construction Practices on September 11, 2019 at Puducherry*





*Thematic Workshops on Vulnerability Atlas of India and Disaster Resistant Design & Construction Practices on January 18, 2020 at MECON Campus, Ranchi*

- Members & Students from Engineering & Management Colleges, Contractors and Architects etc.
- The fourth Thematic Workshop on Vulnerability Atlas of India and Disaster resistant design & construction practices was organized for engineers, designers and planners of MECON Ltd. on January 18, 2020 at Ranchi. The workshop was attended by more than 60 participants.
- The fifth Thematic Workshop on Vulnerability Atlas of India and Disaster Resistant Design & Construction Practices was organized in association with IIT Tirupati on February 22, 2020 at IIT Campus, Tirupati. The programme was attended by more than 100 participants from various engineering & architectural colleges including IIT Tirupati.
- The sixth Thematic Workshop on Vulnerability Atlas of India and Disaster Resistant Design & Construction Practices was organized on March 3, 2020 at New Delhi especially for officials, engineers, architects, designers and other stakeholders of Government, Semi-Government, Ministries and PSUs in NCR region. The programme was attended by more than 90 participants from various Central Ministries/Departments, PSU's, and State Government etc. The faculty for these workshops were from BMTPC, Department of Earthquake Engineering, Indian Institute of Technology Roorkee; Indian Institute of Technology Chennai; CSIR-SERC, Chennai; Department of Hydrology, Indian Institute of Technology Roorkee and Central Water Commission.



*Thematic Workshops on Vulnerability Atlas of India and Disaster Resistant Design & Construction Practices on February 22, 2020 at IIT Tirupati*



*Thematic Workshops on Vulnerability Atlas of India and Disaster Resistant Design & Construction Practices on March 3, 2020 at New Delhi*

## **2. E-Course on Vulnerability Atlas of India**

The Ministry of Housing & Urban Affairs desired to start e-Course on Vulnerability Atlas of India for better preparedness of stakeholders against natural hazards. In view of this, BMTPC and

School of Planning & Architecture (SPA), New Delhi has developed e-Course on Vulnerability Atlas of India under the guidance of Ministry of Housing & Urban Affairs.

Shri Hardeep S Puri, Hon'ble Minister of State (I/C) for Housing and Urban Affairs launched



Shri Hardeep S Puri, Hon'ble Minister of State (I/C) for Housing and Urban Affairs launching the e-Course on Vulnerability Atlas of India on August 29, 2019 at New Delhi



the e-Course on Vulnerability Atlas of India on August 29, 2019 at New Delhi. The e-course on Vulnerability Atlas of India has been launched as one of the activities under “Construction Technology Year (2019-20)” which was announced by the Hon’ble Prime Minister during Construction Technology India 2019: Expo-cum-Conference under Global Housing Technology Challenge – India on 2<sup>nd</sup> March, 2019 at New Delhi.

The e-Course is being offered jointly by the School of Planning & Architecture, New Delhi and Building Materials & Technology Promotion Council (BMTPC), New Delhi. The registration to e-Course on Vulnerability Atlas of India is through SPA’s website [www.spa.ac.in](http://www.spa.ac.in) and [ecourse.bmtpc.org](http://ecourse.bmtpc.org). It is a basic e-learning course that offers awareness and understanding about natural hazards, helps identify regions with high vulnerability with respect to various hazards (earthquakes, cyclones, landslides, floods, etc.) and specifies district-wise level of damage risks to the existing housing stock. The e-course will be a tool for effective & efficient disaster mitigation & management in the field of Architecture, Civil Engineering, Urban & Regional Planning, Housing & Infrastructure Planning, Construction Engineering & Management and Building & Materials Research. So far, 314 persons are pursuing the e-Course out of which 43 have already completed successfully.

BMTPC is constantly pursuing with various stakeholders and departments for giving necessary directions to their engineers and architects for undertaking the course. Also, a clause for inclusion of Vulnerability Atlas of India in tender is being prepared which can be included in the future projects to ensure disaster resistant construction.

### **3. Sharing of Data on Vulnerability Atlas of India**

The Council has prepared the Vulnerability Atlas of India on ArcGIS platform by digitizing the various base maps w.r.t. earthquakes, wind/cy-

clones, floods, etc. Besides landslides incidence maps and thunderstorm incidence maps were created from the datasets. These maps now includes a number of layers for respective hazards and allied information.

The Integrated HQ of Ministry of Defence (Army), Military Survey Division requested BMTPC for sharing of shape files of hazards layers for use in their projects. Military Survey as part of its role in rendering advice on Geospatial matters to the Ministry of Defence and Army HQ is constantly updating geospatial information on natural disasters mapping.

The Disaster Management Unit, Relief & Rehabilitation Department, Government of Maharashtra is preparing Disaster Management Plans of the Departments for the Government of Maharashtra. For this they had requested BMTPC to share GIS shape files of hazard layers for the State of Maharashtra as given in the third edition of Vulnerability Atlas of India.

Similarly, National Capital Region Planning Board (NCRPB) also requested for GIS database pertaining to NCR participating States i.e. Haryana, Rajasthan, Uttar Pradesh and NCT Delhi as they are preparing Regional Plan – 2041 for the NCR.

Looking at the importance of sharing of hazard layers, the following files were shared:

1. Earthquake Hazard Maps – Shape files
2. Wind/Cyclone Hazard Maps – Shape files
3. Flood Hazard Maps – Shape files
4. Landslide Incidence Map – database file
5. Thunderstorm Incidence Map – database file
6. Vulnerability Risk Tables – Excel file

Sharing of the data related to disaster prone areas in India has helped these organizations in the domain of natural disaster mapping.

## V. STRENGTHENING THE INFORMATION AND DATABASE IN THE CONSTRUCTION SECTOR

### I. Publication of the “Nirman Sari-ka” – Special Issue of BMTPC Newsletter

Like preceding years, the Ministry of Housing & Urban Affairs celebrated the World Habitat Day 2019. To mark the occasion, BMTPC brought out a Special Issue of its Newsletter “Nirman Sari-ka” on the theme “Frontier Technologies as an Innovative tool to Transform Waste to Wealth”, chosen by United Nations. This special publication focused on the various issues related to the theme of the World Habitat Day besides highlighting the activities of the Council. The “Nirman Sari-ka” was released by the Hon’ble Minister of State (I/C) for Housing & Urban Affairs during the celebration ceremony of World Habitat Day held on October 4, 2019 at New Delhi.

### 2. Standardization and Product Evaluation

#### **Performance Appraisal Certification Scheme (PACS)**

Performance Appraisal Certification Scheme (PACS), being operated by BMTPC (vide Gazette Notification No. I-16011/5/99 H-II in the Gazette of India No. 49 dated December 4, 1999), is a third party voluntary scheme for providing Performance Appraisal Certificate (PAC) to manufacturers or installers of a product which includes building materials, products, components, elements and systems etc. after due process of assessment.

Since the Scheme is operated for the products/ systems where no relevant Indian Standards are available, it is required to first work out the desired specifications for Performance Appraisal. For the items where no Indian codes are available, international practices are also being referred. In few cases the specifications recom-

mended by the manufacturers have to be modified based on global practices to improve the quality and performance.

Various states, their Housing Boards and other departments are also promoting and using emerging technologies and materials for construction of mass housing in their states. As such PACS has become an important tool for introduction of emerging technologies in mass housing.

#### **Approval of PACs**

Technical Assessment Committee (TAC) constituted for the purpose of approval of Performance Appraisal Certificate (PAC) in its 16th meeting held on December 17, 2019 approved issuance of PACs for the following new products/systems:

- i. Integrated Hybrid Solution – ONE (IHS – ONE)
- ii. Bamboo Wood Flooring
- iii. Permanent Wall Forms
- iv. Strand Woven Bamboo Wood Floor Tiles & Wall Panels
- v. Apollo Chaukhat Door and Window Frame Sections
- vi. Bamboowood Flooring & Wall Cladding
- vii. Elastomeric Paintable Plaster

#### **Approval of Renewal of PACs**

Renewal of PACs for the following eight systems/products were also approved in the TAC’s 16th meeting held on December 17, 2019:

- i. PVC Profile Door
- ii. Underground Water Storage Tank (Sump)
- iii. Continuous Sandwich (PUF) Panel with Steel Structure.



*16<sup>th</sup> Meeting of Technical Assessment Committee (TAC) of Performance Appraisal Certification Scheme (PACS) on December 17, 2019 at New Delhi*

- iv. PIR Dry Wall Prefab Panel System
- v. Sound Proof Drainage Piping System
- vi. Prefabricated Fibre Reinforced Sandwich Panels
- vii. Insulating Concrete Forms
- viii. Rising EPS (Beads) Cement Panels

#### ***Applications under process for issuance of PACs***

Preliminary Applications (PA) for the following new products/systems have been received from the manufacturers on the basis of which Detailed Application Forms (DAF) is being issued for submitting information along with other documents for processing the applications:

- i. Conec Precast Wall Panels
- ii. Exterior Drywall System
- iii. Insulated Sandwich Panel (Glamet)
- iv. Insulated Sandwich Panel (Monowall)
- v. Insulated Sandwich Panel (Super Wall)
- vi. Insulated Sandwich Panel (Hipertec Roof)
- vii. Insulated Sandwich Panel (Hipertec Wall)
- viii. Hybrid Building Bodyguard (Ready to use plaster)

- ix. LGSF Building Components and on-site erection with all finishes as a building
- x. Dalmia Magic Premium Skim Coat
- xi. Rapicone Wall Panels & Prefabricated Steel Structures.

The above applications are being processed on the basis of data furnished by the firms, information available on their web sites, inspection of manufacturing plants at site of works and testing of samples of the products/systems etc. before preparation of Performance Appraisal Certificates (PACs).

#### ***Technical Inputs to Sectional Committees of BIS***

Apart from PACS, the Council is providing technical inputs to various Sectional Committees of Bureau of Indian Standards for formulation of Indian Standards on various subjects related to Civil Engineering such as Cement and Concrete; Flooring, Wall Furnishing and Roofing Materials; Earthquake Engineering; Housing Prefabricated Construction; Hill Area Development; National Building Code; etc.

### 3. Information Dissemination through Website of the Council

The Website of the Council ([www.bmtpc.org](http://www.bmtpc.org)) is being visited by professionals and others globally. It is being used as a reference resource in the area of innovative building materials and construction technologies. The website of the Council acts as a repository on alternate and emerging building materials and construction technologies in line with its mandate to create enabling environment of affordable housing for all. The Council's website has also been developed in Hindi ([hindi.bmtpc.org](http://hindi.bmtpc.org)) as per the directions of the Rajbhasha Nideshalaya.

There has always been good response to BMT-PC's website in the form of general enquiry about product and services. The website of the Council is regularly updated with latest technical information besides hire and purchase requirements, tender notices, training programmes, Right to Information Act and others as required from time to time.

The Council is also using social media platform (Twitter : @bmtpcdelhi; Facebook: @bmtpc.mhua; YouTube: BMTPC) to disseminate the information about the innovative building materials and disaster resistant technologies including other activities.

The image displays four screenshots related to the BMTPC website and social media presence:

- Top Left:** Screenshot of the BMTPC website homepage in English. It features the BMTPC logo, navigation menu, and a main banner for the 'E-COURSE ON VIBROREINFORCED ASIAN OF INDIA'. Below the banner, there are sections for 'Building Materials & Construction Technologies', 'Disaster Mitigation and Management', 'Capacity Building & Skill Development', and 'Project Management and Consultancy'.
- Top Right:** Screenshot of the BMTPC website homepage in Hindi. It features the BMTPC logo, navigation menu, and a main banner for the 'E-COURSE ON VIBROREINFORCED ASIAN OF INDIA'. Below the banner, there are sections for 'Building Materials & Construction Technologies', 'Disaster Mitigation and Management', 'Capacity Building & Skill Development', and 'Project Management and Consultancy'.
- Bottom Left:** Screenshot of the BMTPC website homepage in Hindi. It features the BMTPC logo, navigation menu, and a main banner for the 'E-COURSE ON VIBROREINFORCED ASIAN OF INDIA'. Below the banner, there are sections for 'Building Materials & Construction Technologies', 'Disaster Mitigation and Management', 'Capacity Building & Skill Development', and 'Project Management and Consultancy'.
- Bottom Right:** Screenshot of the BMTPC social media profiles on Twitter and Facebook. The Twitter profile shows tweets about the release of BMTPC's publications by the Hon'ble Minister Shri Hardeep S. Puri. The Facebook profile shows a post about the release of BMTPC's publications by the Hon'ble Minister Shri Hardeep S. Puri.

Below the screenshots, there are icons and links for the BMTPC website and social media profiles:

- [www.bmtpc.org](http://www.bmtpc.org)
- [hindi.bmtpc.org](http://hindi.bmtpc.org)
- [bmtpc.mhua](https://www.facebook.com/bmtpc.mhua)
- [@bmtpcdelhi](https://twitter.com/bmtpcdelhi)

## VI. PROMOTIONAL AND CAPACITY BUILDING ACTIVITIES AT NATIONAL AND INTERNATIONAL LEVEL

### I. Organization of Sensitization Programmes on “Use of New and Emerging Technologies in Mass Housing” under PMAY(U) at Lucknow

BMTPC organizes Sensitization programmes on regular basis in various States to sensitize the engineers & architects in the area of good construction practices and to introduce them with the emerging technologies in housing sector for construction of houses under PMAY (Urban) and other schemes of the State/Central Government.

In the series, a Sensitization Programme on Use of New Technologies in Mass Housing under PMAY (U) was organized on June 17, 2019 in Lucknow. The programme was organized by BMTPC, MoHUA jointly with SUDA, Lucknow, Uttar Pradesh which is the State Level Nodal

Agency (SLNA) of Pradhan Mantri Awas Yojana (Urban). Participants from various ULBs and engineers working in city level technical cell of various cities of Uttar Pradesh attended the Programme.

During the programme, the participants were made aware of benefits of new technology i.e. Stay in Place EPS based double walled panel System, used in Demonstration Housing Project at Lucknow.

A site visit to the Demonstration Housing Project at Aurangabad Jagir, Lucknow implemented by BMTPC using Double Walled EPS Panel based System was organized for the participants of the programme to make them understand the new technology through live project and to explain about the advantages of the technology.



*Organisation of Sensitization Programme on “Use of New Technologies in Mass housing” under PMAY (Urban) on June 17, 2019 at Lucknow*

## 2. Organization of National Conference on Use of Fly Ash at Hyderabad

A National Conference on Use of Fly Ash in Agriculture, Forestry and Other Applications was organized from December 17-18, 2019 at P.J.Telangana State Agricultural University (PJT-SAU), Hyderabad in association with Centre for Fly Ash Research & Management (C-FARM), Central Public Works Department (CPWD), Government of India and The Singareni Collieries Company Limited (SCCL).

Eco friendly sustainable building construction materials by use of fly ash was one of the focus area during the conference with theme on adaptation of Emerging Fly Ash technologies in construction industry such as use of Fly Ash for sustainable high performance concrete, lime activation of siliceous fly ash for very high level of cement replacement, fly ash based geopolymers for treatment of hazardous waste etc.

The 2-days National Conference attracted participation from across the country and the disciplines & provided a platform for researchers and students at the start of the career up to the working executives and scientists/policy makers to the senior most experts of the field to share their experiences, expertise and find answers to their scientific and technical pursuits and also for the industry to deliberate for taking forward the fly ash business. The technical papers and case studies presented during the Conference highlighted that each and every usage of fly ash contributes to conservation of natural resources, protection of environment, generation of employment and business activity contributing to National GDP.

## 3. Organization of Workshop on “Use of Fly Ash and C&D Products for Sustainable Construction” at Mumbai

A Workshop on “Use of Fly Ash and C&D



*Workshop on “Use of Fly Ash and C&D Products for Sustainable Construction”, was organized on January 21, 2020 at Mumbai*

Products for Sustainable Construction”, was organized on 21st January, 2020 at Mumbai in association with Centre for Fly Ash Research & Management (C-FARM) and Central Public Works Department (CPWD). The workshop was attended by representatives of construction agencies, Housing Boards, CIDCO, MHADA, MMRDA, Municipalities and Pollution Control Boards etc. A number of senior experts came forward to share their rich expertise and experience of research, field applications and case studies as well as policy makers and regulatory body officials to share their experience and vision.

There is continued needs for development of technologies for use of fly ash in eco-friendly and gainful manner as well as processing and use of C&D waste. Statutory provision and regulatory mechanisms also continue to evolve taking in account the field experience and the development on technology front. The utilization of fly ash in the country has reached to a level of about 66% from a meager level of 1%. It needs to be taken to 100% level. Significant developments have taken place in last couple of year in technologies and statutory provisions to facilitate higher utilization. Similarly, a number of technologies as well as facilitating regulatory mechanism have evolved for maximizing reuse and processing of C&D waste for sustainable development.

The technical papers covered Use of Fly Ash & C&D Waste in concrete by NCCBM, Fly Ash application as structural fill in Railway embankment by IIT Bombay, use of fly ash based advanced geopolymer concrete for infrastructure development by CSIR-AMPRI Bhopal etc.

#### **4. Organization of Accelerator Workshop for Affordable Sustainable Housing Accelerators – India (ASHA-India)**

The Council jointly with WRI India organized Accelerator Workshop for Affordable Sustainable Housing Accelerators – India (ASHA-India) under GHTC-India, on 28-29 January 2020 at New Delhi, as Knowledge partners of the Ministry.

ASHA-India, a sub-component of GHTC-India, is being implemented by MoHUA, wherein Potential Future Technologies having a working and viable product that required acceleration to mainstream their product in the market in

the domains of construction systems and components, improving the efficiency of natural resource use, self-help innovations and digital technology in the housing sector were invited.

A total 57 Potential Technology Applicants as individuals, start-ups and young entrepreneurs, research agencies, academic institutions, and other similar organizations made presentation during GHTC Construction Technology India (CTI) Expo-cum-Conference held on March 02-03, 2019 before a panel of Jury. They were subsequently evaluated by Technical Evaluation Committee (TEC) constituted by MoHUA for the purpose of GHTC-India. From these applicants, TEC shortlisted 31 applicants under Acceleration Category and 11 applicants under Incubation category.

During the Accelerator Workshop, out of the 31 applicants under Acceleration category, top 10 were invited and imparted rapid and strategic learning & opportunity for network-building to make their products/ technologies market-



*Accelerator Workshop for Affordable Sustainable Housing Accelerators – India (ASHA-India) under GHTC-India, on 28-29 January 2020 at New Delhi*

ready and investment-attractive. The Workshop provided one-on-one interactions of the potential technology providers with key stakeholders such as government procurement agencies, certification and standardization agencies, builders and developers, angel investors, venture capitalists, and research and development institutions (IITs & CSIR Labs). A brochure titled “Meet the COHART” was released during the workshop and certificate of participation was given to the shortlisted final cohort of ten innovations.

### **5. Organization of Orientation Workshop for Contracting Agencies of 6 LHPs with TERI for Green Rating of LHPs**

The Light House Projects (LHPs) under GHTC-India are to be designed and constructed with the requirements of Rating 3 of GRIHA Affordable Housing Standards, so as to add further credibility to the projects in terms of sustainable construction. Accordingly, BMTPC in association with TERI organized Orientation Workshop for

LHP contracting agencies on January 17, 2020 at BMTPC Office, New Delhi. The pre-construction stage being crucial from the point of view of incorporating green features, this Orientation / interaction programme was kept during planning stage of the project only. All aspects of green features, its benefits & methodology for Rating were explained in details & specific queries of the agencies were responded to.

### **6. Organization of Thematic Workshop cum Training Programme on Bamboo Structures for Housing and Construction at Imphal, Manipur**

BMTPC in association with Manipur State Bamboo Mission, Government of Manipur and South Asia Bamboo Foundation (SABF), Guwahati organized Workshop cum Training programme on Building with Bamboo at Imphal, Manipur from 18-22 September, 2019. The Workshop was organized for Civil Engineers, Architects, Consultants, builders/ developers, Construction Managers, Supervisors, Entrepreneurs, NGOs,



*Orientation Workshop for LHP Contracting Agencies on requirements of Rating 3 of GRIHA Affordable Housing Standards on January 17, 2020 at New Delhi*

Contractors etc. on use of Bamboo in housing and building construction.

Considering the potential and prospect of use of bamboo in housing and building construction, there is a need to promote Bamboo technology on large scale both in rural and urban areas to make them familiar in bamboo technology. The main objectives of the training are to create awareness about Bamboo and its importance for sustainable development; creating human resources in the field of construction; providing exposure of the trainees to the practical application sites and the various techniques of the construction involved and promotion of bamboo Entrepreneurs and skill workers throughout the region. The methodology of this training programme included both “Theory and Practical Demonstration” covering all the techniques involve in the basic construction process such

as the basic physical properties of bamboo and its structural behaviour; appropriate techniques for selecting a bamboo in the construction; harvesting and preservative techniques of bamboo; different types of jointing systems; joinery elements; basic plinth preparation techniques and topics related to the construction activities etc.

The faculty for the programme was from SABE, BMTPC, Manipur State Bamboo Mission, State Forest Research Institute (SFRI) Itanagar, NIT Imphal. During the 5-days training workshop, a bus shelter was constructed by the participants under the guidance of experts in Manipur University, Imphal.

## 7. Organization of Workshops on Official Language at New Delhi

BMTPC organized two Workshops on Official



*Thematic Workshop cum Training Programme on Building with Bamboo from September 18-22, 2019 at Imphal, Manipur*

Language first on April 3, 2019 and second on January 14, 2020 at New Delhi. The Hindi Language Workshop was also addressed by Shri Suresh Chandra Chaturvedi, Assistant Director, Official Language and Smt. Kiran Bhardwaj, Consultant Rajbhasha, Ministry of Housing and urban Affairs, Govt. of India.

The Assistant Director, Official Language, appreciated the steps taken by the Council to promote Hindi. During these Workshops, the problems being faced by all the officers / employees of the Council in the working of Hindi Language were deliberated and simple ways were suggested to encourage the use of Hindi in the official work.

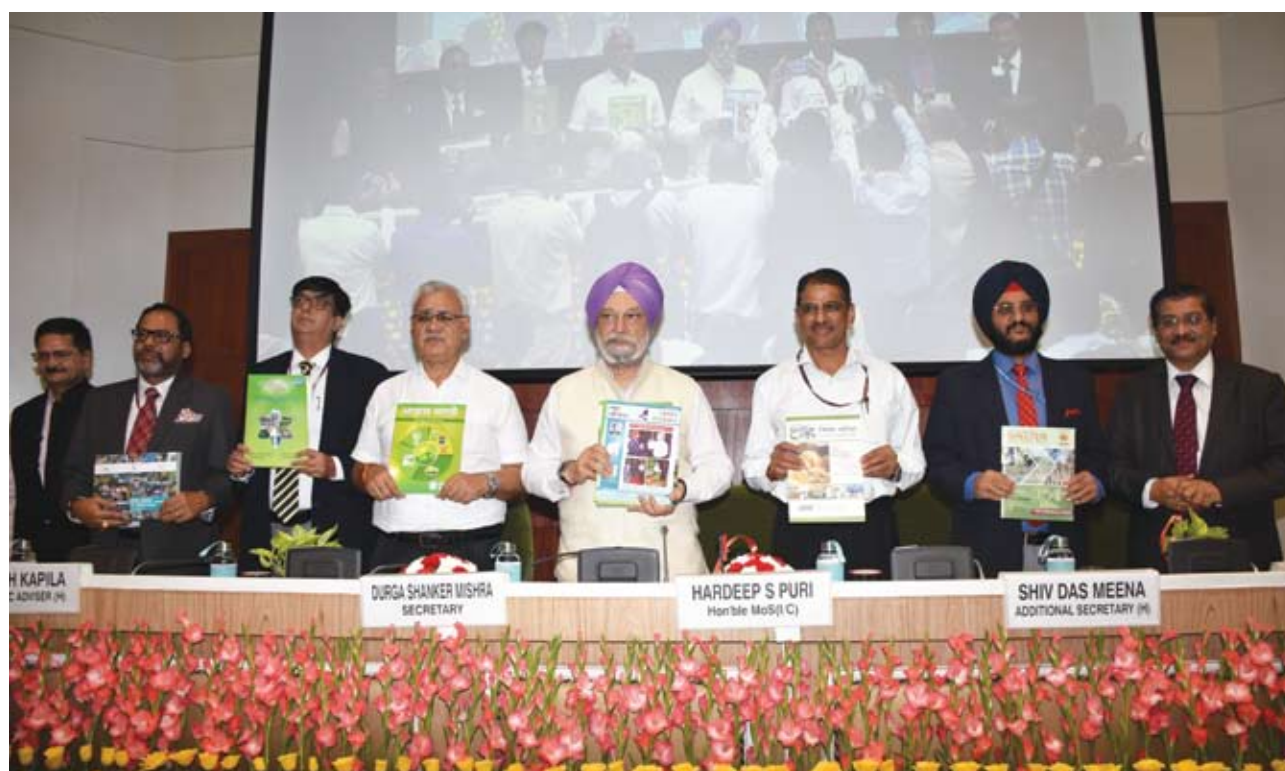
## 8. World Habitat Day 2019 Celebrations

As a part of the World Habitat Day Celebrations, BMTPC organised Painting Competition for Differently Abled Children on the theme

“Frontier Technologies as an Innovative tool to Transform Waste to Wealth” in the categories viz. (i) Mentally Challenged, (ii) Hearing Impaired and (iii) Visually Impaired children.

BMTPC received 210 selected entries from 15 special schools. The Jury in BMTPC selected 16 best entries for prizes. The prizes were awarded to winning entries by Shri Hardeep S Puri, Hon’ble Minister of State (I/C) for Housing & Urban Affairs during the celebration ceremony of World Habitat Day 2019 held on 4<sup>th</sup> October, 2019 at New Delhi.

BMTPC brought out Special Issue of Newsletter “Nirman Sarika” on the theme of the World Habitat Day 2019 “Frontier Technologies as an Innovative tool to Transform Waste to Wealth”. The publication was released by Shri Hardeep S Puri, Hon’ble Minister of State (I/C) for Housing & Urban Affairs during the World Habitat Day 2019 function.



Shri Hardeep Singh Puri, Hon’ble Minister of State (I/C) for Housing & Urban Affairs releasing the Special Issue of Nirman Sarika brought out by BMTPC on the occasion of World Habitat Day on October 4, 2019 at New Delhi



*Shri Hardeep Singh Puri, Hon'ble Minister of State (I/C) for Housing & Urban Affairs visiting the exhibition of Prize-winning entries of the Painting Competition of Differently Abled Children organised by BMTPC during the World Habitat Day on October 4, 2019 at New Delhi*



*Shri Durga Shanker Mishra, Secretary, Ministry of Housing & Urban Affairs giving away the Prizes to the winners of Painting Competition of Differently Abled Children organised by BMTPC during the World Habitat Day on October 4, 2018 at New Delhi*

## VII. TECHNOLOGY DEVELOPMENT, DIFFUSION AND TRANSFER

### I. Identification and Evaluation of Emerging Housing Technologies

The Council has been evaluating alternative construction systems adopted world over to identify, adapt and promote such suitable technologies suiting to Indian geo-climatic conditions on regular basis. In the process, during the year, following technologies were assessed and certified, which have potential to be used for mass housing in the country:

#### ***Integrated Hybrid Solution – ONE***

IHS-ONE is an Intermediate Building System (IBS) having three main components: walls, floor/roof and stairs. All 3 components are integrated to construct a building and hence named as “Integrated Hybrid Solution – ONE”. It has the integration of the following:

**Walls:** Hydraform Prefabricated Mortarless Interlocking Technology. The interlocking blocks are manufactured with a block making machine offsite or onsite in an open shed. The blocks can be of cement-flyash-sand or cement-soil.

**Floors/Roof:** Mechanized Precast R.C. Plank & Joist system :The RC planks as well as joists are

partially precast either offsite or on site. After placement as floor/roof elements, the haunches are filled with in-situ concrete. The assembly with haunch infill provides monolithic behaviour and diaphragm action to transfer horizontal loads to supporting members.

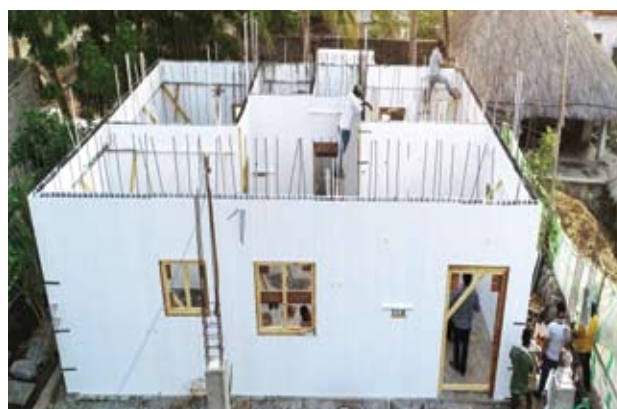
**Ferrocement Elements:** Mechanized precast/prefab Ferrocement staircase, kitchen shelves, kitchen platforms, sunshades, lintel bands, water tanks, fines. The Integrated Hybrid Solution – ONE can be used in a load bearing structure, in mid rise structures and as infill wall with R.C. column-beam-framed or light gauge steel (CRF section) column, beam or in a hybrid of R.C. Column and steel beam framed high rise structure. The system has been designed for all loads including earthquake.

#### ***Permanent Wall Form***

Permaform is an innovative permanent structural walling system consisting of rigid poly-vinyl chloride (PVC) based polymer components that serve as a permanent durable finished formwork for concrete walls. The extruded components slide and interlock together to create continuous formwork with the two faces of the wall connected together by continuous web mem-



*Integrated Hybrid Solution – ONE*



*Permanent Wall Form*

bers forming hollow rectangular components. The web members are punched with holes to allow easy flow of the poured concrete between the components. Wall components are erected and filled with concrete, in situ, to provide a monolithic concrete wall with enhanced curing capacity due to water entrapment, as the polymer encasement does not allow the concrete to dry prematurely with only the top surface of the wall being exposed to potential drying. The polymer encasement provides crack control vertically and horizontally for the concrete, and provides vertical tension reinforcement thus increasing the structural strength of the wall. The resulting system is unique and provides substantial advantages in terms of structural strength, durability enhancement, weather resistance, seismic resistance, design flexibility, and ease of construction. Steel dowels are necessary to anchor the wall to the concrete foundation.

## **2. Conceptualization of NAVARITIH : Certificate Course on Innovative Construction Technologies**

A series of activities have been envisaged by the Ministry of Housing & Urban Affairs for implementation under GHTC-India. As part of “Construction Technology Year 2019-20”, it is planned to initiate a Certificate Course on Use of Innovative Construction Technologies titled “NAVARITIH” by BMTPC and School of Planning & Architecture, New Delhi.

The objectives of the Certificate Course are to (a) Familiarise the professionals with the latest materials and technologies being used worldwide for housing, (b) Provide an awareness of the state of art of materials and technologies in terms of properties, specifications, performance, design and construction methodologies so that professionals can successfully employ these in their day to day practice and (c) Provide exposure to executed projects where such materials and technologies have been implemented.

The Course will be available for any person having B.E./ B.Tech (Civil) or B.Arch. (or equivalent) or Diploma in Civil with 5 years’ experience. The Ministry has organized a number of meetings to conceptualize the Certificate Course with BMTPC and SPA New Delhi. The Course curriculum has been developed by SPA New Delhi and BMTPC with the specific chapters on broad category of technologies from CPWD, CBRI and IITs. The Course is at advance stage of launch.

## **3. Preparation of Compendium on Building Technologies**

A Compendium on Building Technologies has been prepared in association with Central Building Research Institute (CBRI), Roorkee. CSIR-CBRI being premier research institute in the area of building science & technology for more than 7 decades has developed many such building materials, components & technologies and BMTPC is promoting these proven technologies through field level applications. Both the organizations have joined hands to bring out the compendium on Building Technologies. The publication contains 68 existing technologies covering following broad components:

1. Floor and roofing construction technologies
2. Roof construction technologies
3. Wall construction technologies
4. Foundation construction technologies
5. System level technologies
6. Services
7. Materials

Each system/technology has been explained in detail along with technical specifications, tools & equipment, salient features, cost, sustainability & economic aspects, material requirements, limitations, market linkages, structural drawings/detailing and relevant standards & references. Also, the geo-climatic suitability of the technology region has been specified. These building technologies are time-tested and proven and the data

presented is the outcome of the R&D done by scientists of CSIR-CBRI and their field level applications over the years. The document is ready to use and can be successfully used in the field for Beneficiary Led Construction for low-rise to mid-rise structures. The compendium will serve as a useful resource for construction of individual houses and can help State Governments to introduce these systems in their ongoing housing schemes.

#### **4. Preparation of Compendium on Innovative Emerging Technologies shortlisted under GHTC-India**

BMTPC under the guidance of HFA Directorate, Ministry of Housing & Urban Affairs has undertaken preparation of Compendium on Innovative Emerging Technologies which comprises of 54 emerging construction systems shortlisted under Global Housing Technology Challenge - India (GHTC-India).

The Compendium provides concise information of the 54 shortlisted technologies under 6 broad categories including its benefits, limitations, application in actual projects in India/ outside Countries and provides contact details of the technology providers.

Compendium is expected to help Policy makers, Public/ Private user agencies, which are looking for use of suitable alternate housing technologies having particular attributes such as quality, speed, cost effectiveness, sustainability aspects etc. as per the requirement/ suiting to geo-climatic conditions of their region.

#### **5. Course on Materials & Technology for Post Graduate Students of “Master of Planning (Housing)” of School of Planning & Architecture, New Delhi**

The Council was invited by the School of Planning & Architecture, New Delhi to take up the

Course on Materials & Technology for Post Graduate students of “Master of Planning (Housing)” during their second semester.

The Materials and Technology subject of the second semester of Post Graduate Students includes Building materials traditional and conventional, low cost materials, significance of technology for housing development, conventional technologies and modern technologies, appropriate technology, technology for housing in the context of housing development in India and the third world, concept of system building, various open and closed systems, choice of various systems of building, concept of intelligent building. Organization of the construction industry in India-Significance of Housing construction industry, its characteristics and role of various actors involved. Small scale enterprises in the housing construction industry-building material manufacturers, sellers and small contractors. Significance of resources and manpower in housing construction, need for imparting in housing building, concept of Nrimithi Kendras. Cost reducing techniques, environmental friendly technologies, role of technology in housing projects formulation-cost time and other implications, Emerging technological perspectives for house construction, infrastructure and housing area planning, ‘green’ housing. Role of BMTPC and other organizations in promotion of new and alternative technologies.

Therefore, as requested by SPA, New Delhi, the Executive Director, BMTPC took up the Course on Materials & Technology for Post Graduate Students of Master of Planning (Housing) during their second semester.

## IV. ORGANISATION

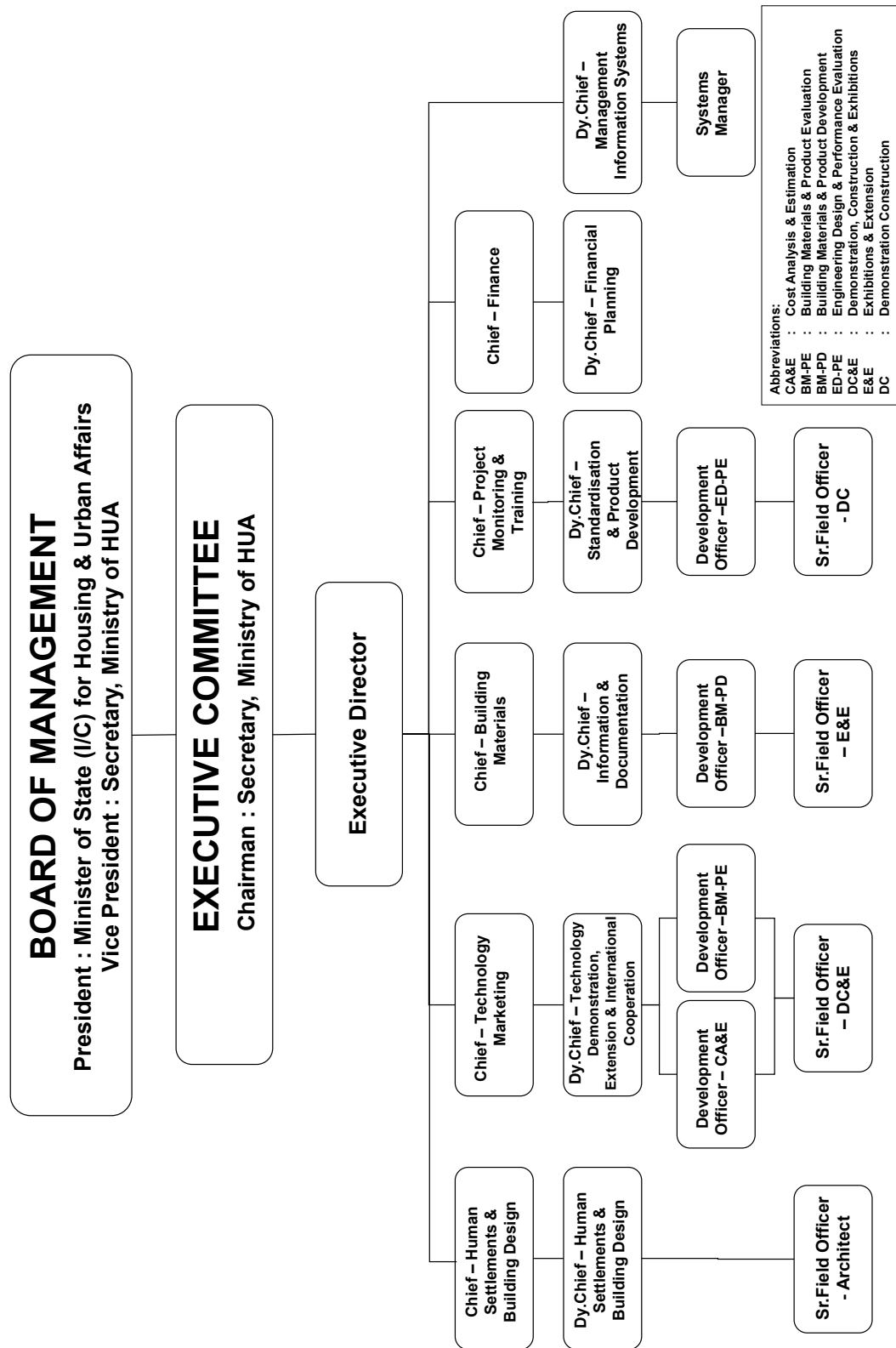
The organogram of BMTPC is shown at next page. As on 31st March, 2020, BMTPC had a staff strength 36 comprising 17 officers and 19 supporting staff. Also suitable technical/ professional/ supporting manpower is hired on contract basis on project to project and need basis.

The Council has continued following administrative and financial measures for bringing transparency, responsiveness and greater participation of the employees:

- Implementation of extent MOA, Byelaws and other rules & regulations of Council.
- Internal Committee for smooth and harmonious functioning of the Council:
  - Investment Committee
  - Advertisement Committee
  - Construction Committee
  - Printing Committee
- GeM Committee
- Local Purchase Committee
- Store Purchase Committee
- Transport Committee
- Contractual Payment Committee
- To redress citizen grievances, online handling of the public grievances through centralized public grievances redress and monitoring system has been initiated.
- Nominated an officer as the Director of grievances and an officer as Welfare Officer for smooth functioning of the organization and to find out the solution of the grievances of the staff members.
- SCs, STs & OBCs Cell for welfare and development of Scheduled Casts & Scheduled Tribes
- Implementation of RTI Act, 2005
- Committee for Prevention of Sexual Harassment of women at workplace.

# BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL

## ORGANISATION CHART



## STAFF STRENGTH

(as on 31.3.2020)

S.No.	Name & Designation	Date of Joining
1.	Dr. Shailesh Kr.Agrawal <i>Executive Director</i>	17.01.08
2.	S.Balasrinivasan <i>Chief-Finance</i>	08.04.92
3.	M. Ramesh Kumar <i>Chief- Human Settlements &amp; Building Design</i>	01.04.93
4.	S.K.Gupta <i>Deputy Chief- Technology, Demonstration Extension &amp; International Cooperation</i>	26.10.93
5.	Arvind Kumar <i>Deputy Chief- Management Information Systems</i>	15.04.99
6.	Chandi Nath Jha <i>Deputy Chief- Standardization &amp; Product Development</i>	09.09.99
7.	Pankaj Gupta <i>Deputy Chief-Information &amp; Documentation</i>	14.10.99
8.	D.P.Singh <i>Development Officer-Engineering Design &amp; Product Evaluation</i>	05.10.98
9	Dalip Kumar <i>Senior Field Officer- Demonstration Construction &amp; Exhibition</i>	04.03.91
10.	Alok Bhatnagar <i>Senior Field Officer- Exhibition &amp; Extension</i>	05.10.98
11.	Akash Mathur <i>Senior Field Officer- Architect</i>	01.01.02
12.	Anita Kumar <i>Sr. Programmer</i>	03.10.96
13.	M.Ramakrishna Reddy <i>Liaison Officer</i>	29.10.03
14.	Pankaj Gupta <i>Personnel Officer</i>	01.03.94
15.	Praveen Suri <i>Systems Analyst</i>	01.09.94
16.	S.S.Rana <i>Library Officer</i>	01.04.98
17.	D.Prabhakar <i>Field Officer</i>	29.01.04
	<i>Supperannuation</i>	
1.	Arun Kumar Tiwari <i>Chief-Project Monitoring &amp; Training and Administration</i> (Superannuated on 29.2.2020)	22.07.03

## ACCOUNTS

- The Council received grants of Rs. 5 Crore towards salaries from the Ministry of Housing & Urban Affairs, Government of India during the FY 2019-20. The receipts from other sources like Fees, Consultancy, Training, DHP, DRMC, GHTC, LHP, Interest, Publications, etc. were Rs. 120.72 Crore.
- In addition, an amount of Rs. 15000.00 Crore was borrowed from National Small Savings Fund (NSSF) on behalf of MoHUA and the same has been disbursed to the States/UTs as per the sanction orders of MoHUA. An amount of Rs. 15.79 Crore was credited by SBI towards interest on the balance available in the NUHF account and Rs. 30,69,04,25,000/- was credited by MoHUA in the said NUHF bank account towards interest payment on EBR loan. An amount of Rs. 30,84,04,25,000/- has been disbursed as per sanction orders of MoHUA as interest payment to NSSF/ HUDCO.
- The total expenditure incurred was Rs. 1,80,95,57,58,707/- during the year, as per Receipts & Payments Account Statement. A summary of expenditure is given below:

Major Heads	Amount (in Rs.)
• Construction of Demonstration Housing Projects in different parts of India & Expenditure on technical activities including Financial Assistance for technology development/application and Sponsored Studies	55,83,930
• Organisation and participation in various Seminars, Conferences, Workshops Housing for All (Handholding, Documentation, Sensitization and Capacity Building), Mainstreaming Emerging Technologies through Dissemination, Knowledge Transfer with State Govt.	26,18,021
• Expenses towards Capacity Building and Training Programmes and other activities relating to DRMC, GHTC, DHP and others	1,83,27,423
• Expenditure on Salary, Establishment & Administration expenses including office equipments, computer peripherals, etc.	7,14,74,456
• Interest payment on EBR loan/Refund of Security Deposits	30,85,77,54,877
• Central Assistance under Pradhan Mantri Awas Yojana (Urban ) {PMAY (U)} - Housing For All from National Urban Housing Fund (NUHF) raised through Extra Budgetary Resource (EBR) borrowed from HUDCO disbursed to the States/UTs as per the sanction orders of the MoHUA	1,50,00,00,00,000
<b>TOTAL</b>	<b>1,80,95,57,58,707</b>

The Accounts have been audited by M/s M.S SEKHON & CO., Chartered Accountants, the balance sheet and the statement of accounts of the year 2019-20 is placed in the report.

**M. S. SEKHON & CO.**  
CHARTERED ACCOUNTANTS  
170, MADHUVAN  
DELHI-110092

**INDEPENDENT AUDITOR'S REPORT**

To

The Members  
Building Materials & Technology Promotion Council  
NEW DELHI

**Report on the Audit of Financial Statements**

**Opinion**

We have audited the financial statements of **Building Materials & Technology Promotion Council (BMTPC)**, a Society registered under the Societies Registration Act, 1860, which comprise the Balance Sheet at March 31<sup>st</sup> 2020, the Statement of Income & Expenditure Account and Receipts & Payment Account for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion and to the best of our information and according to explanation given to us, the financial statements give the information required in the manner so required and give true and fair view in accordance with the Accounting Standards issued by the Institute of Chartered Accountants of India (ICAI):

- (a) In case of Balance Sheet, of the state of affairs of the Society as at March 31, 2020;
- (b) In case Statement of Income and Expenditure Account, of the Deficit for the year ended on that date; and
- (c) In case of Receipts and Payment Account of Receipts and Payments for the year ended on that date.

**Basis for Opinion**

We conducted our audit in accordance with the Standards on Auditing (SAs) issued by ICAI. Our responsibilities under those standards are further described in the Auditor's *Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the entity in accordance with the ethical requirements that are relevant to our audit of the financial statements, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

**Responsibilities of Management and Those Charged with Governance for the Financial Statements**

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the aforesaid Accounting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so.



Those charged with governance are responsible for overseeing the entity's financial reporting process.

#### **Auditor's Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control.

Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the entity to cease to continue as a going concern.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.



FOR M.S. Sekhon & Co.  
CHARTERED ACCOUNTANTS  
ERN: 003671N

*Rajiv Tandon*

Rajiv Tandon  
(FCA, Partner)  
Membership No. 087343  
UDIN: 20087343AAAAACL8748

Place: DELHI  
Date : 03.12.2020


**Building Materials & Technology Promotion Council**

Ministry of Housing &amp; Urban Affairs, Government of India

**BALANCE SHEET AS ON 31 MARCH 2020**

Amount ( ₹ )

	Schedule	2019-20	2018-19
<b><u>CORPUS/CAPITAL FUND AND LIABILITIES</u></b>			
CORPUS/CAPITAL FUND	1	10,00,000	10,00,000
RESERVES AND SURPLUS	2	18,26,68,645	18,93,39,142
LONG TERM LIABILITY	3	4,30,00,00,00,000	2,80,00,00,00,000
EARMARKED FUNDS	4	1,03,98,54,842	-
CURRENT LIABILITIES AND PROVISIONS	5	4,95,20,88,357	9,59,03,65,187
<b>TOTAL</b>		<b>4,36,17,56,11,844</b>	<b>2,89,78,07,04,329</b>
<b><u>ASSETS</u></b>			
PROPERTY, PLANT & EQUIPMENT	6	2,58,96,218	2,84,21,092
NON-CURRENT ASSETS	7	4,30,00,00,00,000	2,80,00,00,00,000
CURRENT ASSETS, LOANS & ADVANCES ETC.	8	6,14,97,15,626	9,75,22,83,237
<b>TOTAL</b>		<b>4,36,17,56,11,844</b>	<b>2,89,78,07,04,329</b>
SIGNIFICANT ACCOUNTING POLICIES AND NOTES TO THE ACCOUNTS	17		

As per our report of even date attached.

 For M S SEKHON & CO.  
Chartered Accountants

FRN: 003671N

 Rajiv Tandon  
Partner  
M.No.87343

 For Building Materials & Technology  
Promotion Council


  
Pankaj Gupta  
Finance Officer


  
Sharad Kumar Gupta  
Chief -Finance I/c


  
Dr. Shailesh Kr. Agrawal  
Executive Director

 Place: New Delhi  
Date: 03.12.2020



**Building Materials & Technology Promotion Council**  
Ministry of Housing & Urban Affairs, Government of India

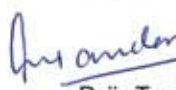
**INCOME & EXPENDITURE ACCOUNT  
FOR THE YEAR ENDED 31 MARCH 2020**

Amount ( ₹ )

	Schedule	2019-20	2018-19
<b>INCOME</b>			
Grants / Subsidies	9	5,00,00,000	5,00,00,000
Demonstration Housing Project/Training Programmes/Seminar Receipts	10	1,16,04,050	6,21,34,000
Income from Publications and PAC's Fee etc.	11	14,45,014	16,43,139
Interest Earned	12	1,02,58,406	59,42,406
<b>TOTAL (A)</b>		<b>7,33,07,470</b>	<b>11,97,19,545</b>
<b>EXPENDITURE</b>			
Expenditure on Salary, Establishment & Administration	13	7,04,32,593	6,51,74,701
Expenditure on Dissemination / Seminars/Workshops, Training Programmes, HFA, etc.	14	42,17,557	63,17,293
Expenditure on Scientific & Technical (S&T) activities including Demonstration Housing Projects	15	21,22,055	3,11,44,402
Depreciation	6	32,05,762	34,02,002
<b>TOTAL (B)</b>		<b>7,99,77,967</b>	<b>10,60,38,398</b>
Surplus/Deficit for the year(A-B)		(66,70,497)	1,36,81,147
Prior Period Items		-	55,62,682
<b>BALANCE BEING SURPLUS/(DEFECIT) CARRIED TO BALANCE SHEET</b>		<b>(66,70,497)</b>	<b>81,18,465</b>

As per our report of even date attached.

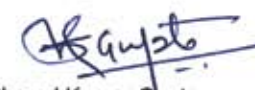
For M S SEKHON & CO.  
Chartered Accountants  
FRN: 003671N

  
Rajiv Tandon  
Partner  
M.No.87343



  
Pankaj Gupta  
Finance Officer

For Building Materials & Technology  
Promotion Council

  
Sharad Kumar Gupta  
Chief -Finance I/c

  
Dr. Shailesh Kr. Agrawal  
Executive Director

Place: New Delhi  
Date: 03.12.2020

# RECEIPTS & PAYMENT ACCOUNT FOR THE YEAR ENDED 31 MARCH 2020

Amount (₹)

	2019-20	2018-19
<b>RECEIPTS</b>		
1 Opening Balance		
Cash Balances in hand	-	-
Bank Balances		
With Scheduled Banks:		
- Deposit with Canara Bank	3,96,00,000	10,87,19,043
- On Savings Accounts:		
- Canara Bank	6,31,081	95,78,823
- State Bank Of India	49,67,756	31,96,974
- State Bank Of India (NUHF)	8,86,20,245	5,26,02,740
2 Grants-in-aid from Central Government (Ministry of Housing & Urban Affairs)	5,00,00,000	5,00,00,000
3 Receipts towards Fees/DRMC/ GHTC/ DHP Projects/ Training Programme, seminar receipts and other receipts	11,83,26,588	87,57,754
4 Loan & Advances (Net)	8,16,095	-
5 Security Deposit etc	3,38,86,532	4,46,585
6 EBR for NUHF Fund	1,50,00,00,00,000	2,00,00,00,00,000
7 Interest received on NUHF Fund payable to MoHUA	15,78,98,438	3,60,17,505
8 Receipts from Ministry towards Demonstration Housing Project at Tripura/Gujarat/Haryana/GOA	6,32,27,350	-
9 Receipts towards Light House Projects	96,01,60,000	-
10 Receipts towards interest payment on EBR loan	30,69,04,25,000	-
11 Receipts from NHB towards Demonstration Housing Project at Bihar Shariff/Lucknow/Odisha	2,32,41,000	1,94,35,000
12 Receipts towards sale of publications, PACS etc	14,45,014	16,23,859
13 Interest Earned	61,60,778	93,36,567
<b>TOTAL</b>	<b>1,82,23,94,05,877</b>	<b>2,00,29,97,14,850</b>
<b>PAYMENTS</b>		
1 Purchase of Fixed Assets	6,80,888	2,29,487
2 Expenditure on Salary, Establishment & Administration	7,07,93,568	7,35,05,776
3 Expenditure on Training Programmes, Seminars/DRMC/Workshops, etc.	26,18,021	1,59,90,736
4 Expenditure on Scientific & Technical (S&T) activities including Demonstration Housing Projects	55,83,930	7,96,76,407
5 Loan & advances (Net)	-	35,53,511
6 Security Deposit etc	1,73,29,877	15,20,945
7 Interest paid on EBR loan to HUDCO/NSSF	30,84,04,25,000	-
8 Earmarked funds		
National Urban Housing Fund	1,50,00,00,00,000	2,00,00,00,00,000
UNDP-Developing Toolkit for urban Managers	-	1,41,250
Global Housing Technology Challenge	41,47,548	-
Demonstration Housing Project at Agartala	99,120	3,09,80,000
Demonstration Housing Project at Panchkula, Haryana	5,76,120	-
Data Resource Monitoring Cell	1,35,04,635	1,50,01,83,27,423
9 Closing Bank Balances		
- Deposit with Canara Bank	13,29,36,634	3,96,00,000
- State Bank of India-LHP A/c	14,45,90,000	-
- On Savings Accounts:		
- Canara Bank	7,52,20,837	6,31,081
- State Bank of India-LHP Agartala	13,99,98,064	-
- State Bank of India-LHP Chennai	16,12,78,065	-
- State Bank of India-LHP Indore	14,34,42,256	-
- State Bank of India-LHP Lucknow	10,08,063	-
- State Bank of India-LHP Rajkot	22,87,98,065	-
- State Bank of India-LHP Ranchi	14,11,18,065	-
- State Bank of India	1,87,38,438	49,67,756
- State Bank of India (NUHF)	9,65,18,683	8,86,20,245
<b>TOTAL</b>	<b>1,82,23,94,05,877</b>	<b>2,00,29,97,14,850</b>

As per our report of even date attached.

For M S SEKHON & CO.  
Chartered Accountants  
FRN: 003671N

Rajiv Tandon  
Partner  
M.No.87343

Pankaj Gupta  
Finance Officer

For Building Materials & Technology  
Promotion Council

Sharad Kumar Gupta  
Chief -Finance I/C

Dr. Shailesh Kf. Agrawal  
Executive Director

Place: New Delhi  
Date: 03.12.2020



**Building Materials & Technology Promotion Council**  
Ministry of Housing & Urban Affairs, Government of India

**SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31 MARCH 2020**

Amount ( ₹ )

SCHEDULE 1- CORPUS/CAPITAL FUND	2019-20	2018-19
Balance as at the beginning of the year	10,00,000	10,00,000
<b>TOTAL</b>	<b>10,00,000</b>	<b>10,00,000</b>

SCHEDULE 2- RESERVES AND SURPLUS	2018-19	2017-18
<b>1. Capital Reserve</b>		
Opening Balance	9,03,34,336	9,01,04,849
Addition during the year	6,80,888	2,29,487
<b>2. Excess of Income over Expenditure</b>		
Opening Balance	9,90,04,806	9,11,15,828
Less : Amount transferred from Income & Expenditure A/c	- 66,70,497	
Add : Amount transferred from Income & Expenditure A/c	-	81,18,465
	9,23,34,309	9,92,34,293
Less: Transferred to Capital Reserve	6,80,888	2,29,487
<b>TOTAL</b>	<b>18,26,68,645</b>	<b>18,93,39,142</b>

SCHEDULE 3- LONG TERM LIABILITY	2019-20	2018-19
<b>National Urban Housing Fund</b>		
1. Loan from National Small Savings Fund for disbursement as Central Assistance to States/UTs under PMAY(U) Mission	2,30,00,00,00,000	80,00,00,00,000
2. Loan from HUDCO for disbursement as Central Assistance to States/UTs under PMAY(U) Mission	2,00,00,00,00,000	2,00,00,00,00,000
<b>TOTAL</b>	<b>4,30,00,00,00,000</b>	<b>2,80,00,00,00,000</b>



# SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31 MARCH 2020

Amount (₹)

SCHEDULE 4- EARMARKED FUNDS	2019-20	2018-19
<b>1 UNDP-Developing Toolkit for Urban Managers</b>		
Opening Balance	-	1,41,250
Received during the year	-	-
Less : Utilization/Expenditure during the year	-	1,41,250
<b>2 Data Resource Cum Monitoring Centre</b>		
Received during the year	44,45,000	66,64,000
Add: Amount Recoverable during the year	90,59,635	40,28,000
Less : Utilization/Expenditure during the year	1,35,04,635	1,06,92,000
<b>3 National Urban Housing Fund</b>		
Received during the year	1,50,00,00,00,000	2,00,00,00,00,000
Less: Disbursement during the year( Schedule 16 )	1,50,00,00,00,000	2,00,00,00,00,000
<b>4 Demonstration Housing Project at Patna, Bihar Shariff</b>		
Received during the year	-	-
Amount Recoverable during the year	-	1,49,00,000
Less: Amount Utilized during the year	-	1,49,00,000
<b>5 Demonstration Housing Project at Lucknow</b>		
Received during the year	-	-
Amount Recoverable during the year	-	1,60,80,000
Less: Amount Utilized during the year	-	1,60,80,000
<b>6 Demonstration Housing Project at Agartala, Tripura</b>		
Received during the year	2,52,31,123	-
Less: Salary & Administration Expenses Apportioned	36,66,061	-
Less: Amount Utilized during the year	99,120	2,14,65,942
<b>7 Demonstration Housing Project at Panchkula, Haryana</b>		
Received during the year	2,02,64,877	-
Less: Salary & Administration Expenses Apportioned	29,44,469	-
Less: Amount Utilized during the year	5,76,120	1,67,44,288
<b>8 Demonstration Housing Project at Goa</b>		
Received during the year	2,12,51,660	-
Less: Salary & Administration Expenses Apportioned	30,87,848	-
Less: Amount Utilized during the year	-	1,81,63,812
<b>9 Demonstration Housing Project at Gujarat</b>		
Received during the year	72,28,340	-
Less: Salary & Administration Expenses Apportioned	10,50,272	-
Less: Amount Utilized during the year	-	61,78,068
<b>10 Global Housing Technology Challenge</b>		
Received during the year	2,19,00,000	-
Less: Amount Utilized during the year	47,57,268	1,71,42,732
<b>11 Light House Project-Agartala</b>		
Received during the year	14,00,00,000	-
Less: Amount Utilized during the year	-	14,00,00,000
<b>12 Light House Project-Chennai</b>		
Received during the year	16,12,80,000	-
Less: Amount Utilized during the year	-	16,12,80,000
<b>13 Light House Project-Indore</b>		
Received during the year	14,33,60,000	-
Less: Amount Utilized during the year	-	14,33,60,000
<b>14 Light House Project-Lucknow</b>		
Received during the year	14,56,00,000	-
Less: Amount Utilized during the year	-	14,56,00,000
<b>15 Light House Project-Raikot</b>		
Received during the year	22,88,00,000	-
Less: Amount Utilized during the year	-	22,88,00,000
<b>16 Light House Project-Ranchi</b>		
Received during the year	14,11,20,000	-
Less: Amount Utilized during the year	-	14,11,20,000
<b>TOTAL</b>	<b>1,03,98,54,842</b>	<b>-</b>
<b>SCHEDULE 5- CURRENT LIABILITIES AND PROVISIONS</b>	<b>2019-20</b>	<b>2018-19</b>
<b>CURRENT LIABILITIES</b>		
- Outstanding Liabilities	9,01,566	25,15,160
- Security Deposits	2,23,54,931	57,98,276
- Interest accrued and due to NSSF(NUHF Fund)	-	6,72,00,00,000
- Interest accrued but not due to NSSF(NUHF Fund) on Loan of Rs.8000 Crore	22,09,31,506	22,09,31,506
- Interest accrued but not due to NSSF(NUHF Fund) on Loan of Rs. 15000 Crore	2,03,51,08,775	-
- Interest accrued but not due to HUDCO(NUHF Fund) on Loan of Rs.20000 Crore	2,57,62,72,896	2,55,25,00,000
- Amount Refundable to MoHUA (NUHF saving bank Interest)	9,65,18,683	8,86,20,245
<b>TOTAL</b>	<b>4,95,20,88,357</b>	<b>9,59,03,65,187</b>





**Building Materials & Technology Promotion Council**  
Ministry of Housing & Urban Affairs, Government of India

**SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31 MARCH 2020**

							Amount ( ₹ )	
SCHEDULE 6- PROPERTY, PLANT & EQUIPMENT							2019-20	2018-19
	GROSS BLOCK			DEPRECIATION			NET BLOCK	NET BLOCK
	<u>Cost as on 01.4.19</u>	Additions	Total	Upto 01.04.19	Current year	Upto 31.03.2020	As on 31.03.20	As on 31.03.19
Office Building including Land	3,43,19,817	-	3,43,19,817	90,97,606	25,22,221	1,16,19,827	2,26,99,990	2,52,22,211
Furniture and Fixtures	37,70,015	8,000	37,78,015	30,06,040	77,198	30,83,238	6,94,777	7,63,975
Office Equipments	1,96,64,283	5,16,988	2,01,81,271	1,84,06,936	2,66,150	1,86,73,086	15,08,185	12,57,347
Computers/ Peripherals	1,89,98,476	1,55,900	1,91,54,376	1,85,93,678	2,24,279	1,88,17,957	3,36,419	4,04,798
Air conditioners	10,35,166	-	10,35,166	8,27,815	31,103	8,58,918	1,76,248	2,07,351
Fan & Coolers	81,224	-	81,224	62,677	2,782	65,459	15,765	18,547
TV and VCR	3,80,450	-	3,80,450	3,45,624	5,224	3,50,848	29,602	34,826
Exhibits, Panels, Display Models	1,20,84,905	-	1,20,84,905	1,15,72,868	76,805	1,16,49,673	4,35,232	5,12,037
	9,03,34,336	6,80,888	9,10,15,224	6,19,13,244	32,05,762	6,51,19,006	2,58,96,218	2,84,21,092
Previous Year (2018-19)	9,01,04,849	2,29,487	9,03,34,336	5,85,11,242	34,02,002	6,19,13,244	2,84,21,092	3,15,93,607



# SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31 MARCH 2020

Amount (₹)

SCHEDULE 7- NON CURRENT ASSETS	2019-20	2018-19
1 Amount Recoverable from MoHUA for repayment of loan taken from NSSF for National Urban Housing Fund under PMAY(U) Mission	2,30,00,00,00,000	80,00,00,00,000
2 Amount Recoverable from MoHUA for repayment of loan taken from HUDCO for National Urban Housing Fund under PMAY(U) Mission	2,00,00,00,00,000	2,00,00,00,00,000
<b>TOTAL</b>	<b>4,30,00,00,00,000</b>	<b>2,80,00,00,00,000</b>

SCHEDULE 8 - CURRENT ASSETS, LOANS, ADVANCES ETC.	2019-20	2018-19
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## A. CURRENT ASSETS:

### 1. Bank Balances

- Deposit with Canara Bank	13,29,36,634	3,96,00,000
- Deposit with SBI (LHP)	14,45,90,000	-
<b>-Savings Accounts:</b>		
- Canara Bank	7,52,20,836	6,31,081
- State Bank of India	1,87,38,438	49,67,756
- State Bank of India(NUHF)	9,65,18,683	8,86,20,245
- State Bank of India(LHP)-Agartala	13,99,98,065	-
- State Bank of India(LHP)-Chennai	16,12,78,065	-
- State Bank of India(LHP)-Indore	14,34,42,256	-
- State Bank of India(LHP)-Lucknow	10,08,063	-
- State Bank of India(LHP)-Rajkot	22,87,98,065	-
- State Bank of India(LHP)-Ranchi	14,11,18,065	-
	<b>1,28,36,47,170</b>	<b>13,38,19,082</b>

## B. LOANS, ADVANCES AND OTHER ASSETS

1. Advances to staff	7,49,700	7,49,700	13,05,542	13,05,542
2. Amount Recoverable from MoHUA under NUHF-Central Assistance from EBR under PMAY(U)	4,83,23,13,177	4,83,23,13,177	9,49,34,31,506	9,49,34,31,506
3. Advances and other amounts recoverable in cash or in kind or value to be received				
a. Amount Recoverable & other Advances	33,48,687		34,81,319	
b. Amount recoverable from NHB	1,67,98,635		3,09,80,000	
c. Amount Recoverable from MoHUA against Various Demonstration Housing Project & GHTC Conference	1,93,468		7,54,32,443	
d. Security Deposit (Space)	4,20,000		4,20,000	
d. Tax Deducted at Source & GST Recoverable	70,75,118	2,78,35,908	1,23,41,302	12,26,55,064
4. Interest Accrued on FDR's		51,69,671		10,72,043
<b>TOTAL (A + B)</b>	<b>6,14,97,15,626</b>		<b>9,75,22,83,237</b>	





## Building Materials & Technology Promotion Council

Ministry of Housing & Urban Affairs, Government of India

### SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED AS ON 31 MARCH 2020

Amount ( ₹ )

SCHEDULE 9- GRANTS/SUBSIDIES (Irrevocable Grants & Subsidies Received)		
	2019-20	2018-19
1 Central Government (Ministry of Housing & Urban Affairs, Government of India)	5,00,00,000	5,00,00,000
<b>TOTAL</b>	<b>5,00,00,000</b>	<b>5,00,00,000</b>
SCHEDULE 10 - FEES/SUBSCRIPTIONS		
	2019-20	2018-19
1 Training Programmes/Seminar Receipts/Demonstration Housing Projects	1,16,04,050	6,21,34,000
<b>TOTAL</b>	<b>1,16,04,050</b>	<b>6,21,34,000</b>
SCHEDULE 11- INCOME FROM PACS FEE, PUBLICATION ETC.		
	2019-20	2018-19
1 Receipts towards sale of publications, PACS etc	14,45,014	16,43,139
<b>TOTAL</b>	<b>14,45,014</b>	<b>16,43,139</b>
SCHEDULE 12- INTEREST EARNED		
	2019-20	2018-19
1 On Term Deposits With Scheduled Banks	85,50,759	51,66,081
2 On savings Accounts With Scheduled Banks	12,82,756	7,04,279
3 On Advance to employees	4,03,063	72,046
4 On Income tax refund	21,828	-
<b>TOTAL</b>	<b>1,02,58,406</b>	<b>59,42,406</b>
SCHEDULE 13- EXPENDITURE ON SALARY, ESTABLISHMENT & ADMINISTRATION		
	2019-20	2018-19
1 Pay and Allowances	6,06,59,988	5,40,16,967
2 Leave Travel Concession	5,61,677	5,11,263
3 Reimbursement of Medical Expenses	2,30,768	11,64,561
4 Honorarium	1,72,500	2,19,259
5 Administration Expenses	88,07,660	92,62,651
<b>TOTAL</b>	<b>7,04,32,593</b>	<b>6,51,74,701</b>
SCHEDULE 14 - EXPENDITURE ON DISSEMINATION / SEMINARS/WORKSHOPS, TRAINING PROGRAMMES, HFA, ETC.		
	2019-20	2018-19
1 Exhibition and publicity	5,27,870	11,47,056
2 Seminar and Conference Expenses	5,12,382	10,50,918
3 Printing, Publication & Advertisement	3,46,660	10,40,113
4 Books and Periodicals	72,947	50,838
5 Housing for All(Handholding, documentation, sensitization & Capacity Building, Disaster Mitigation)	11,58,162	10,52,350
6 Preparation of Vulnerability Atlas of India	15,99,536	1,31,961
7 National Consultation on Accelerated Urban Missions: PMAY (U) and SBM (U)	-	14,14,517
8 Prospective Emerging Technologies for Mass Housing and Global Housing Technology Challenge	-	4,29,540
<b>TOTAL</b>	<b>42,17,557</b>	<b>63,17,293</b>





# Building Materials & Technology Promotion Council

Ministry of Housing &amp; Urban Affairs, Government of India

## SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED AS ON 31 MARCH 2020

	Amount ( ₹ )	
SCHEDULE 15 - EXPENDITURE ON SCIENTIFIC & TECHNICAL (S&T) ACTIVITIES INCLUDING DEMONSTRATION HOUSING PROJECTS	2019-20	2018-19
<b>A Building Materials &amp; Construction Technologies</b>		
1 Construction of demonstration housing project at Lucknow	12,19,113	76,43,927
2 Construction of demonstration housing project at Bhubaneswar	1,58,295	17,60,285
3 Construction of demonstration housing project and community centre at Nellore	72,000	1,08,414
4 Construction of demonstration housing project at Telangana, Hyderabad	1,17,048	1,42,21,491
5 Construction of demonstration housing project at Bihar Sharif	3,27,560	25,06,203
6 Performance appraisal certification scheme	32,613	5,62,071
7 Sensitization Programme on use of new technologies in Mass housing under PMAY(Urban)	45,426	-
8 Monitoring of Demonstration Housing Project in various parts of India	-	6,99,558
9 Assessment of statewide total brick requirement and number of clay brick being manufactured in India	-	1,00,000
10 Documentation of Housing Projects Involving New Construction Technologies in the states of Delhi-NCR, Maharashtra, Karnataka and West Bengal	-	10,00,000
11 Development of educational material in Pedagogic form on emerging technologies namely steel structural system by IIT Kharagpur	-	3,73,750
<b>Sub-Total (A)</b>	<b>19,72,055</b>	<b>2,89,75,699</b>
<b>B Capacity Building &amp; Skill Development</b>		
1 National Seminar on Emerging Trends in Building Material & Sustainable Construction Technology	50,000	
2 Workshop on Use of Fly Ash & Construction & Demolition products for Sustainable Construction	1,00,000	
3 Training Programme for Fly Ash brick manufacturers and potential Entrepreneurs at Delhi-NCR & Cuttack, Odisha	-	67,469
4 Production of short films on Emerging Housing Technologies	-	6,20,933
5 Preparation of Audio Visual Presentation on PMAY	-	1,74,400
6 Capacity Building Programme on Good Construction Practices including Emerging Technologies for Housing at Bhopal	-	1,84,769
7 Capacity Building Programme on Good Construction Practices including Emerging Technologies for Housing at Lucknow	-	2,35,087
8 Capacity Building Programme on Emerging Technologies	-	2,50,000
9 Workshop on utilization of construction & demolition C&D waste in construction of dwelling units & related infrastructure	-	1,00,000
10 Training Workshop on use of Bamboo for Housing & Building construction	-	4,00,000
<b>Sub-Total (B)</b>	<b>1,50,000</b>	<b>20,32,658</b>
<b>C Disaster Mitigation &amp; Management</b>		
1 Design, development & implementation of mobile application for earthquake hazard zoning maps of India	-	1,36,045
<b>Sub-Total (C)</b>	<b>-</b>	<b>1,36,045</b>
<b>TOTAL (A+B+C)</b>	<b>21,22,055</b>	<b>3,11,44,402</b>





**Building Materials & Technology Promotion Council**  
Ministry of Housing & Urban Affairs Government of India

**SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT  
FOR THE YEAR ENDED AS ON 31 MARCH 2020**

		Amount ( ₹ )	
SCHEDULE 16 - National Urban Housing Fund-Central Assistance from EBR under PMAY (U)		2019-20	2018-19
1	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 46 BLC Project	1,06,46,40,000	42,05,40,000
2	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 17 BLC Project	29,55,60,000	28,89,00,000
3	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for HUDCO for CLSS Schemes	2,25,00,00,000	1,90,00,00,000
4	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jharkhand for 36 BLC Project	41,37,60,000	81,24,60,000
5	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the National Housing Bank (NHB) (CLSS for EWS/LIG)	60,00,00,00,000	25,50,00,00,000
6	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 50 BLC Project	4,60,20,000	70,76,40,000
7	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 130 BLC Project	23,44,80,000	92,97,60,000
8	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tripura for 20 BLC Project	52,22,73,000	1,20,000
9	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 438 BLC Project	4,52,31,00,000	9,41,73,60,000
10	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 02 AHP Project	3,49,62,800	3,16,00,000
11	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 04 AHP Project	13,47,00,000	33,89,38,900
12	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of West Bengal for 86 BLC Project	2,58,75,60,000	11,28,60,000
13	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of West Bengal for 91 BLC Project	1,43,02,20,000	3,31,05,00,000
14	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of West Bengal for 15 BLC Project	47,61,00,000	-
15	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 37 BLC Project	86,62,20,000	-
16	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 49 BLC Project	2,47,99,80,000	-
17	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 55 BLC Project	2,14,96,20,000	-
18	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 10 BLC Project	8,98,80,000	-
19	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 12 BLC Project	27,01,20,000	-
20	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 18 BLC Project	22,94,40,000	-
21	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 20 BLC Project	22,63,20,000	-
22	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 22 BLC Project	10,47,00,000	-
23	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 24 BLC Project	51,61,80,000	-
24	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 31 BLC Project	15,67,80,000	-
25	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 54 BLC Project	65,68,80,000	-
26	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 57 BLC Project	16,53,01,700	-
27	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhattisgarh for 131 BLC Project	49,15,80,000	-



Amount ( ₹ )

SCHEDULE 16 - National Urban Housing Fund-Central Assistance from EBR under PMAY (U)		2019-20	2018-19
28	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhatisgarh for 221 BLC Project	72,42,60,000	-
29	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhatisgarh for 467 BLC Project	2,06,47,00,000	-
30	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhatisgarh for 50 BLC Project	25,42,20,000	-
31	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhatisgarh for 51 BLC Project	11,97,00,000	-
32	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhatisgarh for 55 BLC Project	26,93,40,000	-
33	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhatisgarh for 59 BLC Project	35,83,20,000	-
34	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhatisgarh for 61 BLC Project	27,57,60,000	-
35	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhatisgarh for 67 BLC Project	10,50,60,000	-
36	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhatisgarh for 72 BLC Project	45,50,40,000	-
37	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhatisgarh for 79 BLC Project	21,08,40,000	-
38	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhatisgarh for 87 BLC Project	18,25,20,000	-
39	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Gujarat for 122 BLC Project	45,45,00,000	-
40	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Gujarat for 97 BLC Project	38,37,00,000	-
41	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Haryana for 8 BLC Project	4,00,20,000	-
42	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Haryana for 89 BLC Project	24,72,60,000	-
43	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Haryana for 5 BLC Project	5,13,60,000	-
44	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Himachal Pradesh for 15 BLC Project	7,11,97,200	-
45	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Himachal Pradesh for 30 BLC Project	6,73,80,000	-
46	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jharkhand for 38 BLC Project	81,30,60,000	-
47	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jharkhand for 24 BLC Project	7,76,40,000	-
48	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jharkhand for 17 BLC Project	31,14,00,000	-
49	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jharkhand for 16 BLC Project	4,68,00,000	-
50	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jharkhand for 01 BLC Project	49,20,000	-
51	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Karnataka for 273 BLC Project	87,83,40,000	-
52	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Karnataka for 130 BLC Project	6,03,60,000	-
53	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Karnataka for 56 BLC Project	24,83,40,000	-
54	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Karnataka for 259 BLC Project	87,95,40,000	-
55	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Kerala for 72 BLC Project	80,49,00,000	-
56	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Kerala for 19 BLC Project	19,04,40,000	-
57	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 64 BLC Project	1,26,67,20,000	-
58	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 42 BLC Project	81,75,60,000	-



Amount ( ₹ )

SCHEDULE 16 - National Urban Housing Fund-Central Assistance from EBR under PMAY (U)		2019-20	2018-19
59	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 127 BLC Project	1,34,10,00,000	-
60	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Maharashtra for 01 AHP Project	38,52,00,000	-
61	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Maharashtra for 04 BLC Project	2,34,15,500	-
62	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 12 BLC Project	8,81,40,000	-
63	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 124 BLC Project	21,48,60,000	-
64	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 126 BLC Project	33,32,40,000	-
65	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 29 BLC Project	24,65,40,000	-
66	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 36 BLC Project	48,39,00,000	-
67	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 38 BLC Project	19,45,80,000	-
68	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 49 BLC Project	10,14,60,000	-
69	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 66 BLC Project	31,65,00,000	-
70	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 69 BLC Project	10,33,20,000	-
71	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Puducherry for 2 BLC Project	2,87,00,000	-
72	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Puducherry for 4 BLC Project	16,00,20,000	-
73	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Puducherry for 3 BLC Project	3,45,60,000	-
74	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Puducherry for 6 BLC Project	10,66,20,000	-
75	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Rajasthan for 25 BLC Project	11,69,20,000	-
76	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Rajasthan for 41 BLC Project	17,14,36,800	-
77	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for State Bank of India	18,00,00,00,000	-
78	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 45 BLC Project	19,20,00,000	-
79	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 180 BLC Project	90,14,40,000	-
80	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 14 AHP Project	14,65,80,000	-
81	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 28 AHP Project	37,14,60,000	-
82	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 03 AHP Project	2,52,00,000	-
83	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 23 AHP Project	27,15,00,000	-
84	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 58 BLC Project	4,39,20,000	-
85	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 57 BLC Project	97,10,40,000	-
86	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 49 BLC Project	1,52,02,20,000	-
87	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 123 BLC Project	8,64,60,000	-
88	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 69 BLC Project	1,93,56,60,000	-
89	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 188 BLC Project	2,23,58,40,000	-



Amount ( ₹ )

SCHEDULE 16 - National Urban Housing Fund-Central Assistance from EBR under PMAY (U)		2019-20	2018-19
90	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 40 BLC Project	64,30,20,000	-
91	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 142 BLC Project	3,97,48,20,000	-
92	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 157 BLC Project	3,30,09,60,000	-
93	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 179 BLC Project	19,14,60,000	-
94	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 19 AHP Project	13,09,13,000	-
95	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 304 BLC Project	6,96,63,60,000	-
96	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 413 BLC Project	7,40,11,80,000	-
97	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 45 BLC Project	1,08,79,80,000	-
98	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 35 BLC Project	-	63,83,40,000
99	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 78 AHP Project	-	3,98,43,60,000
100	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 40 AHP Project	-	6,57,21,00,000
101	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 14 BLC Project	-	42,21,00,000
102	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 67 BLC Project	-	3,93,19,80,000
103	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 24 BLC Project	-	1,24,43,40,000
104	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 16 BLC Project	-	56,32,80,000
105	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 16 AHP Project	-	3,85,21,80,000
106	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 16 BLC Project	-	83,50,20,000
107	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 34 BLC Project	-	43,07,40,000
108	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 32 BLC Project	-	3,35,80,80,000
109	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Andhra Pradesh for 17 AHP Project	-	3,00,17,40,000
110	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Assam for 06 BLC Project	-	1,02,60,000
111	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 12 BLC Project	-	63,48,60,000
112	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 10 BLC Project	-	16,63,20,000
113	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 24 BLC Project	-	15,51,00,000
114	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 31 BLC Project	-	55,90,20,000
115	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 54 BLC Project	-	1,54,22,40,000
116	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Bihar for 57 BLC Project	-	35,23,52,000
117	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhattisgarh for 9 AHP Project	-	17,66,98,000
118	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhattisgarh for 122 BLC Project	-	51,98,40,000
119	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhattisgarh for 365 BLC Project	-	21,20,40,000



		Amount (₹)	
SCHEDULE 16 - National Urban Housing Fund-Central Assistance from EBR under PMAY (U)		2019-20	2018-19
120	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Chhattisgarh for 196 BLC Project	-	1,28,82,60,000
121	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Gujarat for 6 AHP Project	-	2,61,13,80,000
122	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Gujarat for 62 BLC Project	-	41,38,20,000
123	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Gujarat for 64 BLC Project	-	57,36,00,000
124	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Gujarat for 11 BLC Project	-	15,86,40,000
125	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Gujarat for 97 BLC Project	-	67,33,20,000
126	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Gujarat for 4 AHP Project	-	21,09,00,000
127	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Gujarat for 4 Ray Project	-	9,07,68,000
128	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Gujarat for 8 AHP Project	-	23,23,92,000
129	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Haryana for 74 BLC Project	-	39,04,80,000
130	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Haryana for 170 BLC Project	-	16,08,60,000
131	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for HUDCO for CLSS Schemes	-	80,00,00,000
132	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jammu & Kashmir for 19 BLC Project	-	15,22,73,000
133	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jammu & Kashmir for 84 BLC Project	-	15,53,94,000
134	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jharkhand for 16 BLC Project	-	24,93,00,000
135	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jharkhand for 24 BLC Project	-	49,47,60,000
136	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jharkhand for 36 BLC Project	-	87,18,00,000
137	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jharkhand for 36 BLC Project	-	68,94,60,000
138	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jharkhand for 36 BLC Project	-	46,69,20,000
139	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Jharkhand for 01 BLC Project	-	1,43,40,000
140	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Karnataka for 119 BLC Project	-	32,91,00,000
141	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Karnataka for 76 BLC Project	-	7,10,08,800
142	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Karnataka for 151 BLC Project	-	52,26,00,000
143	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Karnataka for 105 BLC Project	-	29,98,80,000
144	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Karnataka for 354 BLC Project	-	62,31,60,000
145	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Kerala for 339 BLC Project	-	4,35,77,46,000
146	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 1 AHP Project	-	13,53,60,000
147	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 137 BLC Project	-	2,56,13,40,000
148	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 137 BLC Project	-	16,20,000



		Amount ( ₹ )	
SCHEDULE 16 - National Urban Housing Fund-Central Assistance from EBR under PMAY (U)		2019-20	2018-19
149	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 54 BLC Project	-	1,12,64,40,000
150	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 39 BLC Project	-	1,11,53,40,000
151	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 28 BLC Project	-	83,77,20,000
152	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 37 BLC Project	-	71,39,40,000
153	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 47 BLC Project	-	86,58,60,000
154	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 1 AHP Project	-	1,22,40,000
155	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 145 BLC Project	-	2,82,10,80,000
156	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Madhya Pradesh for 223 BLC Project	-	2,05,89,60,000
157	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Nagaland for 2 BLC Project	-	2,39,40,000
158	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Nagaland for 9 BLC Project	-	51,04,20,000
159	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the National Housing Bank (NHB) (CLSS for EWS/LIG)	-	34,50,00,00,000
160	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the National Housing Bank (NHB) (CLSS for EWS/LIG)	-	25,00,00,00,000
161	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 27 BLC Project	-	29,25,00,000
162	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 23 BLC Project	-	28,15,20,000
163	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 49 BLC Project	-	63,63,00,000
164	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 126 BLC Project	-	36,09,00,000
165	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 1 Ray Project	-	7,78,14,000
166	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Odisha for 07 Ray Project	-	25,50,13,000
167	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Punjab for 195 BLC Project	-	22,44,06,300
168	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Rajasthan for 07 AHP Project	-	14,64,00,000
169	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Sikkim for 2 BLC Project	-	47,40,000
170	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 6 AHP Project	-	13,97,40,000
171	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 35 AHP Project	-	44,24,40,000
172	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 58 BLC Project	-	13,94,43,000
173	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 07 BLC Project	-	18,05,40,000
174	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 12 BLC Project	-	36,72,60,000
175	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 12 BLC Project	-	32,98,20,000
176	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 13 BLC Project	-	29,99,40,000
177	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 123 BLC Project	-	29,43,00,000



		Amount ( ₹ )	
SCHEDULE 16 - National Urban Housing Fund-Central Assistance from EBR under PMAY (U)		2019-20	2018-19
178	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 23 BLC Project	-	44,98,20,000
179	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 01 AHP Project	-	1,30,20,000
180	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Tamil Nadu for 2 AHP Project	-	57,60,000
181	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 86 BLC Project	-	1,00,26,60,000
182	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 275 BLC Project	-	1,68,91,95,000
183	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 435 BLC Project	-	5,02,30,45,000
184	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 490 BLC Project	-	42,91,80,000
185	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 884 BLC Project	-	1,71,82,79,000
186	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 08 AHP Project	-	20,16,00,000
187	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 104 BLC Project	-	1,66,02,60,000
188	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 104 BLC Project	-	85,98,34,000
189	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 282 BLC Project	-	5,61,00,60,000
190	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttar Pradesh for 516 BLC Project	-	7,25,59,20,000
191	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of Uttarakhand for 14 BLC Project	-	5,28,00,000
192	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of West Bengal for 12 BLC Project	-	64,28,20,000
193	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of West Bengal for 26 BLC Project	-	1,72,21,20,000
194	Central Assistance under Pradhan Mantri Awas Yojna (PMAY) (URBAN)-Housing for All Mission for the Government of West Bengal for 28 BLC Project	-	1,07,04,60,000
<b>Total</b>		<b>1,50,00,00,00,000</b>	<b>2,00,00,00,00,000</b>



## SCHEDULE 17: SIGNIFICANT ACCOUNTING POLICIES AND NOTES TO THE ACCOUNTS

### Overview

Building Materials & Technology Promotion Council (BMTPC), established in 1990, is an autonomous grant-in-aid organization of the Ministry of Housing & Urban Affairs, Govt. of India. BMTPC is mandated to promote and transfer cost-effective, environment-friendly, energy-efficient and emerging building materials and housing technologies including disaster resistant construction practices for large scale field application.

### 1 Significant Accounting Policies-

- System of Accounting:** The accounts have been prepared to comply with all material aspects with applicable principles in India and notified Accounting Standards.
- Property, Plant & Equipment:** Fixed assets are stated at cost of acquisition less accumulated depreciation provided as per Income Tax Act 1961. All the fixed assets are recognized as per the rules and regulations as provided in the General Financial Rules, 1963, amended upto date.
- Depreciation:** Depreciation is provided at written down values rates and in the manner as specified in the Income Tax Act 1961.
- Government Grants:**
  - Government Grants received during the year are accounted in accordance with Accounting Standard 12 on 'Accounting for Government Grants' issued by ICAI.
  - Earmarked funds received for specific purpose are utilized for the purpose for which funds are received and the unspent balance of such funds are carried forward until fully utilized or refunded.
- Retirement Benefits-**
  - The Council contributes to its own Provident Fund Trust which is recognized by the Income Tax authorities and the contributions paid during the year to Provident Fund Trust are charged to revenue.
  - Liability in respect of Gratuity and Leave Encashment to employees is provided by way of premium paid to LIC and is charged to revenue in the year of payment.
- General:** Accounting policies not specifically mentioned are otherwise in consonance with generally accepted accounting practices.

### 2 Contingent Liabilities: Claims against the Council not acknowledged as debts - NIL.

### 3 In opinion of the Management, the amount on realization of current assets, loans and advances in the ordinary course of business would not be less than the amount at which they are stated in the Balance Sheet. Further, provision for all known liabilities has been made in the accounts.

### 4 The Council is registered under section 12AA of the Income Tax Act and its income is exempt from Income Tax. Provision for Income Tax has thus not been made in the accounts. The Council is regularly depositing TDS, GST and other statutory liabilities with the government authorities

### 5 Income and Expenditure: Since there are large number of income and expenditure accounting heads, expenses and revenue of similar nature and falling under different Heads are clubbed together wherever required for better presentation of financial statements.

### 6 a) Ministry of Housing & Urban Affairs vide letter no. N-11022/1/2018-HFA-III-UD (C. No. 9035628) dated 14.03.2018 conveyed to BMTPC the following:

The Cabinet in its meeting held on 20.02.2018 has approved, inter-alia, the proposal of our Ministry as under:

- Raising of funds through Extra Budgetary Resources (EBR) to the extent of Rs. 60,000 Crore through a lending agency or financial institution, over four years, for PMAY (Urban) projects, in consultation with the Ministry of Finance;
- BMTPC to take loan on behalf of Government of India and disburse to the States / UTs and Central Nodal Agencies (CNAs), on the advice of the Ministry of Housing and Urban Affairs, for PMAY (Urban);
- Government of India will amortize the loan and fulfill the repayment obligations at the agreed terms and conditions as decided by the Ministry of Finance.

### b) In view of the above, the amount of principal and interest is to be met out of the funds allocated by the Ministry of Housing & Urban Affairs and there is the virtual certainty of the amount, the expected amount recoverable is shown as a separate asset i.e. Non-Current Asset and the loan received from NSSF/HUDCO is shown as Long-Term Liability in the Balance Sheet.

### c) During the year, the Council has received an amount of Rs.15,000 Crore (previous years Rs.8000 Crore) from NSSF and Rs. Nil (Previous years Rs.20,000 Crore) from HUDCO as loan on behalf of Government of India and the entire amount has been disbursed to States/UT's and Central Nodal Agencies under the PMAY(U) scheme. The detail of disbursement is at Schedule 16.

### d) The principal and interest payable to the lenders on loans taken under National Urban Housing Fund (NUHF) for PMAY (Urban) program will be provided to the Council by the Ministry of Housing & Urban Affairs. The Interest on the loan borrowed on behalf of the Ministry will be paid from the receipts to be provided for this purpose by the Ministry on the due dates of Interest payment. Accordingly, the interest expenditure / income is not routed through Income & Expenditure Account but is shown as a current liability / current asset in the Financial Statements.

### 7 Previous year figures have been rearranged & regrouped wherever required and all the above said information has been given by the management and relied upon by the auditors.

### 8 Schedule 1 to 17 annexed to and form integral part of financial statements for the year ended 31<sup>st</sup> March, 2020

As per our report of even date attached.

For M S SEKHON & CO.

Chartered Accountants


FRN: 003671N

  
Rajiv Tandon  
Partner  
M.No.87343



For Building Materials & Technology  
Promotion Council

  
Pankaj Gupta  
Finance Officer

  
Sharad Kumar Gupta  
Chief-Finance I/c

  
Dr. Shailesh Kr. Agrawal  
Executive Director

Place: New Delhi  
Date: 03.12.2020

## ANNEXURE I

### PARTICIPATION IN NATIONAL AND INTERNATIONAL EVENTS

#### I. EXHIBITIONS

During the year, the Council actively participated in various exhibitions which have helped in sharing knowledge and experience in cost effective & emerging, environment friendly and energy efficient building materials, construction technologies and simple machines for production of building components including emerging technologies:

- Govt. Achievements & Schemes Expo-2019 organised by National News Service (NNS) Events & Exhibitions Pvt. Ltd. during August 1-3, 2019 at Pragati Maidan, New Delhi
- 7<sup>th</sup> Indian National Exhibition cum Fair 2019 (National Level Science, Technology, Mass Awareness Exhibition & Seminar) organised by Bengal Human Resource Development Foundation during September 25-29, 2019 at Kolkata
- “6<sup>th</sup> Vibrant India-2019” concurrent exhibition ‘Meri Dilli Utsav 2019’ during 18-20 October, 2019 at Pitampura Dilli Haat, New Delhi
- Exhibition of Prize Winning Paintings of Differently Abled Children on the theme “Frontier Technologies as an Innovative tool to Transform Waste to Wealth” during World Habitat Day 2019 celebration on October 4, 2019 at New Delhi

#### II. SEMINARS/ CONFERENCES/ WORKHOPS/TRAINING PROGRAMMES etc.

- Workshop on Rajbhasha on April 3, 2019 at New Delhi
- Construction Waste Reduction : Australia-India Collaborative Workshop on April 23-24, 2019 at Darwin, Australia
- Thematic Workshop on Vulnerability Atlas of India and Disaster resistant design & construction practices organized by BMTPC on May 3, 2019 at New Delhi
- Relief Commissioner Annual Conference on 7-8 May, 2019 at New Delhi
- First awareness workshop on Residential Building Labelling Programme organized by Bureau of Energy Efficiency on 15 May 2019 at New Delhi

- Conference during 5th Smart Cities India 2019/Buildings India Expo by Exhibitions India and ITPO on 22-24 May 2019, New Delhi
- National Housing Conference 2019 organised by School of Planning & Architecture on 31 May 2019 at New Delhi
- Thematic Workshop on Vulnerability Atlas of India and Disaster resistant design & construction practices organized by BMTPC on June 4, 2019 at Gurugram
- Sensitization Programme on “Use of New Technologies in Mass Housing” under PMAY (Urban) held on June 17, 2019 at Lucknow
- Asia Pacific Housing Forum (APHF-7) organised by Habitat for Humanity India on 18 July 2019 on New Delhi
- Safe Smart Cities Conference on 19 July 2019 at New Delhi
- Workshop titled ‘Waste to Wealth’ on Productive Utilization of Red Mud organized by Ministry of Mines on 26 July, 2019 at New Delhi.
- 15<sup>th</sup> National Convention (Housing for All 2022) organized by NAREDCO on 19-20 August, 2019 at New Delhi
- Launch of e-Course on Vulnerability Atlas of India and Angikaar – A campaign for change management by Hon’ble Minister of Housing & Urban Affairs on August 29, 2019 at New Delhi
- 6<sup>th</sup> Strategic Economic Dialogue (SED) between India & China held during September 7-9, 2019 in New Delhi
- Thematic Workshop on Vulnerability Atlas of India and Disaster resistant design & construction practices organized by BMTPC on September 11, 2019 at Puducherry
- Augmenting Nature by Green Affordable New-habitat (ANGAN) - A courtyard for revolutionary change in Building Energy Efficiency - The International Building Energy Efficiency Conference on 9 - 11 September 2019 at New Delhi
- World Habitat Day 2019 Celebrations organized by M/o HUA on 4 October 2019 at New Delhi
- 14<sup>th</sup> Central Information Commission Annual Convention on 12 October 2019 at New Delhi

- Training Programme on Planning and Implementation of Sustainable and Affordable Housing – Perspectives on PMAY’ organized by HUDCO from 15 – 18 October, 2019 at Goa
- Regional Workshop on the Challenges of Disaster Risk Reduction in Hill Towns on 22 - 23 October, 2019 at Shimla
- Workshop on the occasion of Vigilance Awareness Week 2019 on the theme “Integrity- A way of life’ under the Chairmanship of Secretary, HUA on 29 October, 2019 at New Delhi
- NCRPB “Inaugural Conclave on NCR – 2041 – Planning for Tomorrow’s Greatest Capital Region” on 11 November, 2019 at New Delhi
- Demolition, Recycling & Remediation - DEMTECH INDIA 2019 on November 13, 2019 at Mumbai
- 4<sup>th</sup> Conference on Affordable Housing in India organized by India Infrastructure Publishing Pvt.Ltd. on November 26, 2019 at New Delhi
- International training programme on “Formal Solutions to Informal Settlements” organized by HSMI at New Delhi from 4 November – 13 December, 2019, sponsored by the MEA, GoI under the Indian Technical and Economic Cooperation (ITEC) scheme
- 16<sup>th</sup> NCB International Seminar on Cement, Concrete and Building Materials on 3-6 December 2019, Manekshaw Centre at New Delhi
- National Conference on Use of Fly Ash in Agriculture, Forestry and Other Applications organized by BMTPC and C-FARM on December 17-18, 2019 at Hyderabad
- 24<sup>th</sup> Annual Convention and National Seminar on Development of New Greenfield Township from 6-8 January, 2020 at New Delhi
- Workshop on Rajbhasha on January 14, 2020 at New Delhi
- Orientation Workshop for LHP contracting agencies for Green Rating of LHPs on January 17, 2020 at New Delhi
- Thematic Workshop on Vulnerability Atlas of India and Disaster resistant design & construction practices organized by BMTPC on January 18, 2020 at Ranchi

- Workshop on “Use of Fly Ash and Construction & Demolition (C&D) Products for Sustainable Construction” organized by C-FARM and BMTPC on 21 January, 2020 at Mumbai
- Accelerator Workshop for Affordable Sustainable Housing Accelerators – India (ASHA-India) under GHTC-India, on 28-29 January 2020 at New Delhi
- Thematic Workshop on Vulnerability Atlas of India and Disaster resistant design & construction practices organized by BMTPC on February 22, 2020 at Tirupati
- Connect@NAREDCO 2020 Purchase Meet on February 13, 2020 at New Delhi
- Thematic Workshop on Vulnerability Atlas of India and Disaster resistant design & construction practices organized by BMTPC on March 3, 2020 at New Delhi
- India Smart Cities Fellowship Programme at National Institute of Urban Affairs ( NIUA) on March 13, 2020, New Delhi

### **III. TECHNICAL COMMITTEE/WORKING GROUPS /MEETINGS ETC.**

- 91<sup>st</sup> meeting of Board of Governors of CIDC on 15 April, 2019 at New Delhi
- Meeting with Addl.Secretary (Tech Education), Ministry of HRD regarding Uchhatar Avishkar Yojna (UAY) Ph-II on 20 May 2019 at New Delhi
- 2<sup>nd</sup> Meeting of Core Group for Development of detailed outline for Resources Material on Earthquake Engineering at IIT Mumbai on 25 May, 2019
- 56<sup>th</sup> meeting of the Executive Committee of BMTPC held under the Chairmanship of Secretary, MoHUA on June 6, 2019 at New Delhi
- Meeting to review the Rapid Visual Screening (RVC) under the Chairmanship of Shri Kamal Kishore, Member, NDMA on 10 June, 2019 at New Delhi
- CSIR Fast Track Translation Projects meeting at CSIR on 25 June, 2019 at New Delhi

- Meeting to finalize RFP for Light House Project (LHPs) under GHTC-India chaired by JS&MD(HFA) on 28 June, 2019 at New Delhi
- 44<sup>th</sup> meeting of CSMC of PMAY(U) under the Chairmanship of Secretary, MoHUA on 28 June, 2019 at New Delhi
- 2<sup>nd</sup> Meeting of Central Monitoring Committee organized by M/o EFCC under the Chairmanship of Sh Anil Kumar, Addl. Secretary, M/o EFCC on 1 July, 2019 at New Delhi
- Meeting to follow-up GHTC-India activities Chaired by Secretary, HUA on 1 July, 2019 at New Delhi
- 165<sup>th</sup> CPWD Foundation Day celebration held on July 12, 2019 chaired by Hon'ble Minister of Housing and Urban Affairs at Vigyan Bhawan, New Delhi
- Meeting to finalize Incubation and Acceleration Guidelines under GHTC-India under the chairmanship of Secretary HUA on 16 July, 2019 at New Delhi
- 45<sup>th</sup> meeting of CSMC of PMAY(U) under the Chairmanship of Secretary, MoHUA on 26 July, 2019 at New Delhi
- Meeting on Light House Projects - Joining of Dots to discuss the way forward for construction of LHPs under GHTC-India chaired by JS(HFA) on 20 August, 2019 at New Delhi
- 18<sup>th</sup> Darbari Lal Seth Memorial Lecture organized by TERI on 27 August, 2019 at New Delhi
- 46<sup>th</sup> meeting of CSMC of PMAY(U) under the Chairmanship of Secretary, MoHUA on 29 August, 2019 at New Delhi
- Meeting of Hindi Rajbhasha Working Committee under the chairpersonship of JS (Admin) on 25 September, 2019 at New Delhi
- 47<sup>th</sup> meeting of CSMC of PMAY(U) under the Chairmanship of Secretary, MoHUA on 25 September, 2019 at New Delhi
- 2<sup>nd</sup> meeting of Screening Committee for Selection of Awardees for PMAY(U) Award 2019 on 21 October 2019 at New Delhi
- 48<sup>th</sup> meeting of CSMC of PMAY(U) under the Chairmanship of Secretary, MoHUA on 31 October, 2019 at New Delhi

- 49<sup>th</sup> meeting of CSMC of PMAY(U) under the Chairmanship of Secretary, MoHUA on 27 November, 2019 at New Delhi
- 57<sup>th</sup> meeting of the Executive Committee of BMTPC held under the Chairmanship of Secretary, MoHUA on November 28, 2019 at New Delhi
- 16<sup>th</sup> Meeting of Technical Assessment Committee (TAC) of Performance Appraisal Certification Scheme (PACS) on December 17, 2019 at New Delhi
- 50<sup>th</sup> meeting of CSMC of PMAY(U) under the Chairmanship of Secretary, MoHUA on 27 December, 2019 at New Delhi
- 2<sup>nd</sup> Review Committee Meeting for CSIR-FFT/FTC projects of Civil, Infrastructure and Engineering (CIE) Theme – End Tranche (supported in 2018-19) organized by CSIR on 2 January, 2020 at New Delhi
- Governing Council meeting of Indian Building Congress (IBC) for 2020-21 on 7 January, 2020 at New Delhi
- Meeting of NDMA to discuss work plan in Environmental Conservation, Disaster Risk Reduction and Climate Change Adaptation among BIMSTEC Countries on 9 January, 2020 at New Delhi
- Meeting of INAE Forum on Civil Infrastructure (Housing) on 6 February 2020 at New Delhi
- 72<sup>nd</sup> Meeting of Research Advisory Committee (RAC) of National Council of Cement and Building Materials (NCCBM) on 11 February, 2020 at New Delhi
- “Purchase Meet” a unique initiative by NAREDCO to invite Real Estate Developers and ancillary industries to showcase their products and services on 13 February, 2020 at New Delhi
- A series of meetings of Technical Evaluation Committee constituted under Global Housing Technology Challenge – India (GHTC-India) to shortlist the 54 Proven Technology Providers
- A series of meetings of Technical Evaluation Committee constituted under Global Housing Technology Challenge – India (GHTC-India) to shortlist the Potential Technology Providers for Acceleration Category and Incubation Category

- A series of meetings of Technical Evaluation Committee constituted under Global Housing Technology Challenge – India (GHTC-India) to finalize the technical proposals received from the bidders for construction of LHPs
- A series of lectures for Post Graduate Students of Master of Planning (Housing) on the subject ‘Materials & Technology’ at School of Planning & Architecture, New Delhi
- A series of meetings of High Powered Committee for providing subsidy under Central Capital Investment Subsidy Scheme (CCIS), 2007 of Department of Industrial Policy and Promotion, Ministry of Commerce and Industry
- A series of meetings for organization of “New Urban India (NUI) : Promoting Technology & Innovation in Housing”, Expo-cum Conference under the ambit of GHTC-India.

#### IV. OTHERS

- The Council participated in the “Construction Waste Reduction : Australia-India Collaborative Workshop” on April 23-24, 2019 at Darwin, Australia on the request of TERI, The Energy and Resources Institute. The intent of the workshops was to increase cooperation and long term bilateral strategies partnerships between the two countries where researchers, decision makers and industry work together for improved knowledge sharing and mutual understanding on crucial construction & demolition waster (CDW) management issues.
- BMTPC as part of Working Group on “Resource Conservation & Environment Protection” participated in 6th Strategic Economic Dialogue (SED) between India & China held during September 7-9, 2019 in New Delhi. Presentation was made on “Construction & Demolition (C&D) Waste Management – Indian Scenario” with an objective to have cooperation between two countries with mutual benefits. The visiting delegation were also taken to C&D Processing Plant of Municipal Corporation of Delhi at Burari with a capacity of 7,20,000 MT/Annum run by IL&FS on PPP Model. The Indian delegation was led by Vice Chairman, NITI Aayog and the Working Group was led by Joint Secretary and National Mission Director (SBM), Ministry of Housing & Urban Affairs

- The Bureau of Energy Efficiency (BEE), Ministry of Power under Indo German Energy Programme, has developed a market transformation strategy to enable energy efficiency in the Brick Industry through technological and product innovation. The Council made its contribution as part of Working Group for 'National Brick Industry Mission'.
- As part of delegation headed by Secretary, MoHUA, visited the Precast Manufacturing Plant of M/s Kattera in April 2019 to understand the 3D Volumetric Precast System for mass housing. Site visit to an ongoing project in Bengaluru using their system was also made.
- To review the progress of the project "Development of Modular Infill and Interlocking AAC Blocks with its Design Interface for Market Driven Affordable Mass Housing for Low Income Group" visited IIT Roorkee. MoHUA has funded the project under Uchchatar Aawishkar Yojana of MoHRD. Progress report was submitted to MoHUA for consideration of release of funds for the project.
- The Haryana State Industrial and Infrastructure Development Corporation (HSIIDC) requested BMTPC for providing Project Management Consultancy for their projects of affordable housing for industrial workers in Haryana. In this regard, several meetings have been held with HSIIDC. Made a presentation on various emerging technologies proposed to be used in the project before the officials of HSIIDC.
- United Nations Office for Project Services (UNOPS) has also requested BMTPC for providing Project Management Consultancy services for project of affordable housing in Goa. A proposal was sent to UNOPS and response is awaited.
- National Health Mission (NHM), Govt. of Uttar Pradesh has also requested BMTPC for providing Project Management Consultancy services for Construction of Drug Warehouses using Prefab Technology in Uttar Pradesh. A detailed report highlighting the advantages of PUF insulating building v/s conventional RCC building has been submitted to Mission Director, NHM, Ministry of Health & Family Welfare and Principal Secretary, Medical Health & Family Welfare, Govt. of Uttar Pradesh. A final presentation on detailed report will be made before the Chief Secretary, Govt. of Uttar Pradesh.

- The Govt. of Kerala requested BMTPC to assist in selection of technologies for reconstruction of damaged houses during the recent floods. The Council is providing its technical services to Govt. of Kerala. Further, BMTPC as part of High level Committee, constituted by Life Mission, Govt. of Kerala, suggested bouquet of technologies for construction of Pilot Life Towers in all districts of Kerala.

## **ANNEXURE II**

### **PAPERS PRESENTED/PUBLISHED INCLUDING PRESENTATIONS MADE**

- Presentation on Construction & Demolition Waste Management – Indian Scenario during Construction Waste Reduction : Australia-India Collaborative Workshop on April 23-24, 2019 at Darwin, Australia
- Presentation on Emerging Construction Systems for Sustainable Mass Housing during 5th Smart Cities India 2019/Buildings India Expo by Exhibitions India and ITPO on 22-24 May 2019, New Delhi
- Presentation on Innovative Construction Systems for Mass Housing during National Housing Conference 2019 organized by School of Planning & Architecture on 31 May 2019 at New Delhi
- Presentation on Construction of proposed Drug Ware Houses using PUF Sandwich Panel before the senior officials of Government of UP chaired by Chief Secretary, Govt. of UP on June 18, 2019 at Lucknow.
- Presentation on Emerging Technologies for Affordable Housing during Asia Pacific Housing Forum (APHF-7) organised by Habitat for Humanity India 18 July 2019 on New Delhi
- Presentation on Disaster Mitigation & Management - Hazard Vulnerability in India during Safe Smart Cities Conference on 19 July 2019 at New Delhi
- Presentation on “Construction & Demolition (C&D) Waste Management –Indian Scenario” in 6th Strategic Economic Dialogue (SED) between India & China held during September 07-09, 2019 at New Delhi
- Presentation on Sustainable Building Materials & Construction Technologies during Augmenting Nature by Green Affordable New-habitat (ANGAN) - A courtyard for revolutionary change in Building Energy Efficiency - The International Building Energy Efficiency Conference on 9 - 11 September 2019 at New Delhi.
- Article on Sustainable Building Materials & Technologies published in the Special Issue of Nirman Sarika brought out on the occasion of World Habitat Day 2019 by BMTPC

- Presentation on “New and Emerging Mass Construction Technological Solutions” during Training Programme on Planning and Implementation of Sustainable and Affordable Housing – Perspectives on PMAY organised by HUDCO from 15 – 18 October, 2019 at Goa
- Presentation on Construction & Demolition Waste Management – Indian Scenario during Demolition, Recycling & Remediation - DEMTECH INDIA 2019 on November 13, 2019 at Mumbai
- Presentation on Innovative Construction Systems for Mass Housing during 4<sup>th</sup> Conference on Affordable Housing in India organised by India Infrastructure Publishing Pvt.Ltd. on November 26, 2019 at New Delhi
- Presentation on “New & Emerging Technologies under PMAY-U” during International Training Programme on “Formal Solutions to Informal Settlements” organised by HSMI from 4<sup>th</sup> November – 13<sup>th</sup> December, 2019 at NEW Delhi, sponsored by the MEA, Gol under the Indian Technical and Economic Cooperation (ITEC) scheme
- Presentation on Fast Track Construction Systems for Affordable Housing – Need of the hour during 16<sup>th</sup> NCB International Seminar on Cement, Concrete and Building Materials on 3-6 December 2019 at New Delhi
- Presentation on Building Materials & Product from Agriculture & Industrial Wastes - Materials & Technology (HSE207) – Lecture for Post Graduate Course : Master of Planning (Housing), Department of Housing, SPA at New Delhi
- Presentation on “Alternate Building Materials and Techniques for Housing” during International Training Programme organised by HUDCO’s HSMI on 15<sup>th</sup> January 2020 at New Delhi
- Presentation on Emerging Construction Systems for Mass Housing during Connect@NAREDCO 2020 Purchase Meet on February 13, 2020 at New Delhi
- Presentation on “Implementation of PMAY(U) & use of Emerging Technologies in construction of Houses” for Fellows of ‘India Smart Cities Fellowship Programme’ at National Institute of Urban Affairs (NIUA) on March 13, 2020 at New Delhi.

## **ANNEXURE III**

### **PUBLICATIONS BROUGHT OUT DURING THE YEAR**

- Special Issue of Newsletter “Nirman Sarika” on the theme of the World Habitat Day 2019 “Frontier Technologies as an Innovative tool to Transform Waste to Wealth”.
- Corporate Brochure titled Creating Enabling Environment for Affordable Housing for All
- Brochure on Introduction to Third Edition of Vulnerability Atlas of India





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### **Building Materials and Technology Promotion Council**

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