

GOVERNMENT OF INDIA
MINISTRY OF HOUSING AND URBAN AFFAIRS
RAJYA SABHA
UNSTARRED QUESTION NO. 2138
TO BE ANSWERED ON MARCH 20, 2023
TECHNOLOGY SUB-MISSION UNDER PMAY (U)

NO. 2138. SHRI AYODHYA RAMI REDDY ALLA:

Will the Minister of HOUSING AND URBAN AFFAIRS be pleased to state:

- (a) whether Government had set up a technology sub-mission in order to facilitate the adoption of innovative, sustainable, eco-friendly and disaster-resilient technologies and building materials for low-cost, speedier and quality construction of houses under Pradhan Mantri Aawas Yojana – Urban if so, the details thereof and if not, the reasons therefor; and
- (b) the measures being undertaken by Government to bring a paradigm shift in the overall housing construction sector in the country?

ANSWER
THE MINISTER OF STATE IN THE
MINISTRY OF HOUSING AND URBAN AFFAIRS
(SHRI KAUSHAL KISHORE)

- (a) & (b): Yes, Sir. A Technology Sub-Mission (TSM) under the Pradhan Mantri Aawas Yojana - Urban (PMAY-U) Mission has been set up for the adoption of innovative, sustainable, eco-friendly and disaster-resilient technologies and building materials for low-cost, speedier and quality construction of houses. Following activities have been undertaken under TSM to bring a paradigm shift in adoption of innovative construction technologies:
- i. Identification, Evaluation and Certification of Emerging Technologies for adoption by Public/Private agencies.
 - ii. Global Housing Technology Challenge – India (GHTC-India) was initiated to identify and mainstream globally best available proven construction technologies that are rapid, sustainable, green and disaster resilient.
 - iii. Under GHTC-India, 54 innovative proven construction technologies shortlisted from across the globe.
 - iv. Six Light House Projects (LHPs) using six distinct technologies shortlisted under GHTC-India are constructed at six places in the country.
 - v. Under Affordable Sustainable Housing Accelerator - India (ASHA-India) initiative, 48 potential future technologies in both Pre & Post prototype categories were shortlisted by Technical Evaluation Committee set up by Ministry of Housing and Urban Affairs (MoHUA).
 - vi. Under ASHA-India, five Incubation Centres have been set up to provide Incubation Support to potential future technologies that are not yet market ready.
 - vii. 14 Demonstration Housing Projects using new technologies are built under PMAY-U to showcase innovative technology options to States/Union Territories (UTs) and disseminating technical awareness among professionals.
 - viii. A free online Enrolment of TECHNOGRAHIS has been started for exposing the interested stakeholders to learn different phases of use of innovative technologies in LHPs for adoption and replication.

- ix. An online course named NAVARITIH (New, Affordable, Validated, Research Innovation Technologies for Indian Housing) has been started to enhance the capability of building professionals about the new and emerging building materials, technologies and processes for construction.
- x. Indian Housing Technology Mela (IHTM) was organized to showcase the domestic indigenous and innovative technologies, building materials and construction processes for low & medium rise houses. 84 innovative technologies/products/materials were shortlisted under IHTM.
- xi. Under the Indian Urban Housing Conclave (IUHC), a National Exhibition on Innovative construction practices was organized to showcase more than 85 innovative construction systems & materials. MoHUA in association with GIZ and Building Materials and Technology Promotion Council (BMTPC) is hosting series of trainings/workshops on Innovative Construction Technologies and Thermal Comfort for Affordable Housing named RACHNA (Resilient, Affordable and Comfortable Housing through National Action). 75 RACHNA training programmes spreading over 30 cities have been successfully conducted across India, covering over 4,500 stakeholders.
- xii. Performance Appraisal Certification Scheme (PACS) is being operated for Identification, Evaluation and Certification of Emerging Technologies suiting to different geo-climatic conditions of the country, which are safe, sustainable and environment-friendly and ensure faster delivery of quality houses by BMTPC, MoHUA. Under PACS, so far 77 innovative products and systems have been certified.
- xiii. More than 15 lakh houses are being constructed/completed using new technologies in various Central and State Schemes. State-wise details of houses which are constructed using new construction technologies is at Annexure.
- xiv. A series of offsite Workshops/Webinars, Webcasting, Mentoring on Technical know-how/Modules were organised jointly with State Governments for capacity building & handholding support on innovative construction technologies.
- xv. Various publication on innovative construction technologies and other areas related to faster, cost effective, environment friendly, disaster-resistant, sustainable construction.

Houses being constructed using New Construction Technologies

S. No.	Name of Technology	No. of Houses being Constructed
1	EPS and other Sandwich Panel	1,288
2	Monolithic RCC using Aluminium Formwork	10,04,616
3	Monolithic RCC using Tunnel Formwork	43,196
4	Precast RCC Technology	4,73,346
5	Precast RCC (Waffle Crete)	6,953
6	SLIP form work	3,290
7	Fly-Ash Hollow Blocks	864
6	Precast 3 D Volumetric Technology	2,528
9	Prefabricated Steel Structure	249
10	Structural Stay in Place Formwork System	1,092
11	Light Gauge Steel Frame Structure (LGSF)	1,016
12	Glass Fibre Reinforced Gypsum (GFRG) Panel System	36
Total		15,38,474