

GOVERNMENT OF INDIA
MINISTRY OF HOUSING AND URBAN AFFAIRS
LOK SABHA
UNSTARRED QUESTION NO. 2586

TO BE ANSWERED ON DECEMBER 22, 2022

TECHNOLOGY SUB-MISSION UNDER PMAY-U

NO. 2586. SHRI CHANDRA SEKHAR BELLANA:

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

- (a) whether the Government has 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 (PMAY-U);**
- (b) if so, the details thereof;**
- (c) the details of progress made so far under the same; and**
- (d) the details of other proposed measures 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 Awas 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.

(c) & (d): 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 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 BMTPC is hosting series of trainings/workshops on Innovative Construction Technologies and Thermal Comfort for Affordable Housing named RACHNA (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 given 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.**

State-wise details of houses which are constructed using new construction technologies

S.No.	State/UT	EPS and other Sandwich Panel	Monolithic RCC using Aluminum Formwork	Monolithic RCC using Tunnel Formwork	Precast RCC Technology	Precast RCC (Waffle Crete)	SLIP formwork	Fly-Ash Hollow Blocks	Precast Volumetric Technology	3D Prefabricated Steel Structure	Structural Stay in Place Formwork System	Light Gauge Steel Frame Structure (LGSF)	Glass Fiber Reinforced Gypsum (GFRG) Panel	Over all houses Sanctioned
1	Andhra Pradesh	192	7,01,481	-	2,336	-	-	-	-	-	-	-	36	7,04,045
2	Chhattisgarh	-	6,882	-	11,111	-	-	-	-	-	-	-	-	17,993
3	Delhi	-	17,412	-	73,496	-	-	-	-	-	-	-	-	90,908
4	Gujarat	-	47,606	1,144	-	6,953	-	-	-	-	-	-	-	55,703
5	Haryana	-	14,700	-	10,750	-	-	-	-	-	-	-	-	25,450
6	Himachal Pradesh	-	-	-	-	-	-	-	-	249	-	-	-	249
7	Jharkhand	-	-	750	40,665	-	-	-	1,008	-	-	-	-	42,423
8	Karnataka	-	29,074	-	12,555	-	133	-	1,520	-	-	-	-	43,282
9	Madhya Pradesh	1,024	-	-	-	-	-	-	-	-	-	-	-	1,024
10	Maharashtra	-	1,72,277	32,031	1,66,306	-	3,099	864	-	-	-	-	-	3,74,577
11	Odisha	32	-	-	7,762	-	-	-	-	-	-	-	-	7,794
12	Puducherry	-	1,136	-	-	-	-	-	-	-	-	-	-	1,136
13	Tamil Nadu	-	21,428	532	3,664	-	-	-	-	-	-	-	-	25,624
14	Telangana	-	12,316	8,739	-	-	-	-	-	-	16	16	-	21,087
15	Tripura	-	-	-	-	-	-	-	-	-	-	1,000	-	1,000
16	Uttar Pradesh	1,080	12,572	-	61,782	-	-	-	-	-	-	-	-	75,434
17	Uttarakhand	-	2,187	-	-	-	-	-	-	-	-	-	-	2,187
18	West Bengal	-	12,601	-	-	-	58	-	-	-	-	-	-	12,659
Total		2,328	10,51,672	43,196	3,90,427	6,953	3,290	864	2,528	249	52	1,016	36	15,02,611