GOVERNMENT OF INDIA
MINISTRY OF HOUSING AND URBAN AFFAIRS
LOK SABHA
UNSTARRED QUESTION NO. 3325
TO BE ANSWERED ON MARCH 12, 2026

SUSTAINABLE AND DISASTER RESILIENT HOUSING INITIATIVE

NO. 3325. SHRI VE VAITHILINGAM:

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

(a) whether the Government has considered adoption of modular and composite construction systems using lighter structural materials under sustainable and disaster-resilient housing initiatives;
(b) if so, the details of the Government's evaluation regarding long-term durability, environmental benefits, seismic and flood resistance, thermal performance and cost-efficiency before recommending wider deployment within Government housing programmes; and
(c) whether the Government intends to implement demonstration projects in disaster-prone or environmentally sensitive regions using such construction approaches, supported by monitoring frameworks ensuring occupant safety, structural stability and large-scale scalability under Government oversight and if so, the details thereof?

ANSWER
THE MINISTER OF STATE IN THE
MINISTRY OF HOUSING AND URBAN AFFAIRS
(SHRI TOKHAN SAHU)

(a) to (c): Ministry of Housing and Urban Affairs (MoHUA) has been implementing Pradhan Mantri Awas Yojana - Urban (PMAY-U) since 25.06.2015 with an aim to provide all weather pucca houses with basic civic amenities to all eligible urban beneficiaries across the country. The scheme period of PMAY-U has also been extended up to 30th September 2026 for completion of under-construction houses and release of funds through SNA-SPARSH module.

Based on the learnings from the experiences of implementation of PMAY-U, MoHUA has revamped the scheme and launched PMAY-U 2.0 'Housing for All' Mission with effect from 01.09.2024 for implementation in urban areas across the country to construct, purchase and rent a house by 1 crore additional eligible beneficiaries at affordable cost in next five years. PMAY-U 2.0 is implemented through four verticals i.e., Beneficiary Led Construction (BLC), Affordable Housing in Partnership (AHP), Affordable Rental Housing (ARH) and Interest Subsidy Scheme (ISS).

...2/-

The Technology Sub-Mission (TSM) under PMAY-U supports States/Union Territories (UTs) in adopting modern, innovative, green and alternative construction technologies for faster and quality housing. Under TSM, Global Housing Technology Challenge – India (GHTC-India) was organized to identify and mainstream globally proven, sustainable, disaster-resilient and prefabricated construction technologies. A total of 54 proven technologies from across the world were shortlisted and grouped into six categories based on geo-climatic regions for adoption by States/UTs, which are available at www.ghtc-india.gov.in. These technologies were approved by the Technical Assessment Committee and are time-tested. In addition, following activities have been undertaken under TSM for promoting energy efficient designs, climate resilient, modern, innovative and green technology for faster and quality construction of houses:

(i) Six Light House Projects (LHPs) using six distinct technologies shortlisted under GHTC-India are constructed at six places in the country. These projects mark a significant advancement in the Indian Government's endeavour to address urban housing shortages by adopting sustainable and disaster-resilient technologies.

(ii) 13 Demonstration Housing projects (DHPs) using new technologies are built in different part of the country to showcase innovative and eco-friendly technology and energy-efficient materials to States/UTs and disseminating technical awareness among professionals.

(iii) 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.

(iv) Indian Housing Technology Mela (IHTM) in 2021 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. In addition, under the Indian Urban Housing Conclave 2022, a National Exhibition on Innovative construction practices was organized to showcase more than 85 innovative construction systems and materials.

(v) MoHUA in association with GIZ and Building Materials and Technology Promotion Council (BMTPC) has hosted series of trainings/workshops on Innovative Construction Technologies and Thermal Comfort for Affordable Housing named RACHNA (Resilient, Affordable and Comfortable Housing through National Action). More than 150 RACHNA training programmes across the country have been successfully conducted across India, covering over 11,000 stakeholders.

...3/-

(vi) 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. Under PACS, so far, 88 innovative products and systems have been certified.

(vii) A series of offsite Workshops/Webinars, Webcasting, Mentoring on Technical know-how/Modules were organised jointly with State Governments for capacity building and handholding support on innovative construction technologies.

(viii) Various publications on innovative construction technologies and other areas related to faster, eco-friendly, energy-efficient, cost effective, environment friendly, disaster-resistant, sustainable construction system has been made.

Building upon progress of TSM, Technology & Innovation Sub-Mission (TISM) under PMAY-U 2.0 supports innovative design and construction practices, promote quality assurance and adopting green building standards for sustainable housing in the country. TISM promotes adoption of layout designs and building plans suitable for various geo-climatic zones through coordination with various regulatory and administrative bodies for mainstreaming and upscaling the deployment of modern construction technologies and material in place of conventional construction materials practices. Projects under the scheme promotes use of resource efficient, climate responsive, disaster resilient, eco-friendly and sustainable building materials, technologies and processes.

As per the Scheme Guidelines, an additional grant in the form of Technology Innovation Grant (TIG) is also provided to AHP projects using innovative construction technologies notified by MoHUA. States/UTs are encouraged to adopt these innovative construction technologies identified by the Ministry as per their local context.

Further, as per PMAY-U 2.0 Guidelines, there is provision to ensure quality of construction under BLC/AHP/ARH verticals of the Mission through Third Party Quality Monitoring Agencies (TPQMA) selected by States/UTs. TPQM Agencies are required to visit the project site and to advise State/UT and Urban Local Bodies on quality related issues.

*****