GOVERNMENT OF INDIA
MINISTRY OF HOUSING AND URBAN AFFAIRS
RAJYA SABHA
UNSTARRED QUESTION NO. 1815
ANSWERED ON 09/03/2026

MODERN HOUSING CONSTRUCTION TECHNOLOGIES IN RURAL AND TIER-II/III AREAS

1815. DR. AJEET MADHAVRAO GOPCHADE:

Will the Minister of *Housing and Urban Affairs* be pleased to state:

(a) whether Government is aware that modern, cost-effective, disaster-resilient and sustainable housing construction technologies developed by various Central agencies are not being adequately adopted or mainstreamed in villages and Tier-II and Tier-III cities;

(b) whether the Central Government, in coordination with State Governments proposes to promote large-scale adoption of such modern construction technologies and innovative housing designs in rural and semi-urban areas; and

(c) specific measures taken or proposed, including policy interventions, capacity building of local bodies and artisans and technical landholding of States, to ensure that benefits of advanced housing technologies translate into affordable, safe housing at the grassroots level?

ANSWER

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

(a) to (c): As per 12th Schedule of the Constitution of India, urban planning including housing is the function of Urban Local Bodies (ULBs)/ Urban Development Authorities. Government of India supplements the efforts of the States through schematic interventions/ advisories. Implementation of rural and urban housing programmes and adoption of construction technologies is primarily undertaken by the States/Union Territories (UTs) and ULBs/UDAs, as per local requirements and applicable laws.

Ministry has issued Model Building Bye-laws (MBBL) – 2016 (https://mohua.gov.in/upload/uploadfiles/files/MBBL.pdf) in which Chapter-10 deals with Green Buildings and Sustainability provisions for adoption by the States.

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. Under PMAY-U, a Technology Sub-Mission (TSM) was set up to facilitate adoption of modern, innovative and green technologies and building material for faster and quality construction of houses. TSM facilitates preparation and adoption of layout designs and building plans suitable for various geo-climatic zones. It also assists States/ Cities in deploying disaster resistant and environment friendly technologies.

In addition, following activities have been undertaken under TSM for promoting energy efficient designs, climate resilient, modern, innovative and green technology for faster, safe and quality construction of houses across the country including Tier-II/III areas:

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(i) Under TSM, Global Housing Technology Challenge - India (GHTC-India) was conducted to identify and mainstream globally best available proven construction technologies including prefabricated technology that are rapid, sustainable, green and disaster resilient. Under GHTC-India, a basket of 54 innovative proven construction technologies shortlisted from across the globe were grouped into six distinct categories as per the different geo-climatic regions for further adoption by States/UTs which are available at www.ghtc-india.gov.in.

(ii) Six Light House Projects (LHPs) using six distinct technologies shortlisted under GHTC-India are constructed at six places in the country consisting of 1,000 Dwelling Units (DUs) at each place. These projects mark a significant advancement in the Indian Government's endeavour to promote adoption of sustainable and disaster-resilient technologies.

(iii) Capacity building of various stakeholders is being promoted through large-scale site visits to the six LHPs. These visits provide hands-on exposure to innovative construction technologies, with participation of over 25,000 stakeholders.

(iv) 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.

(v) 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.

(vi) 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. Further, 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.

(vii) 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.

(viii) 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.

(ix) 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.

(x) 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.

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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. Building upon progress of TSM, Technology & Innovation Sub-Mission (TISM) under PMAY-U 2.0 continue to support innovative design and construction practices, promote quality assurance and adopt 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. The project also adopts green building norms in line with prevailing standards and specifications including sustainable construction practices to provide thermal comfort, reduce energy use and environmental impact.

Further, to promote large-scale adoption of modern construction technologies by States/UTs, an additional grant in the form of Technology Innovation Grant (TIG) is also provided for construction of multi-storeyed Projects under PMAY-U 2.0, using innovative construction technologies notified by MoHUA.

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