

GOVERNMENT OF INDIA
MINISTRY OF HOUSING AND URBAN AFFAIRS
LOK SABHA
UNSTARRED QUESTION NO. 4066
TO BE ANSWERED ON DECEMBER 19, 2024
DECARBONIZE EXISTING BUILDINGS

NO. 4066. DR. D RAVI KUMAR :

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

- (a) the strategies proposed by the Government to decarbonize existing buildings, which contribute to 40% of global energy-related CO2 emissions by giving their diverse age, condition, and type;**
- (b) the plan proposed by the Government to address the policy and regulatory barriers that hinder the adoption of sustainable practices for retrofitting older, energy-inefficient buildings;**
- (c) whether the innovative financing models and public-private partnership initiatives are being explored to support large-scale decarbonisation of existing buildings across urban areas and if so, the details thereof;**
- (d) the measures taken/ proposed to be taken by the Government to improve envelope efficiency and upgrade mechanical systems in older buildings to reduce fossil fuel consumption and enhance sustainability; and**
- (e) the mechanism adopted by the Government to ensure that cities achieve their carbon reduction goals, considering the long-term presence of existing, unsustainable buildings in urban infrastructure ?**

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

(a) to (e):

Strategies to decarbonizes buildings are heterogeneous in many different aspects, from building components (envelope, structure, materials, etc.) to services (shelter, heating, etc.), to building types (residential and commercial), to building size, function, and climate zone. The Government of India is making multiple efforts at mitigating emissions from building sector. Much of the efforts at mitigation efforts in the building sector focus on the demand side management of energy and material use through design and technology.

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The National Mission for Sustainable Habitat (NMSH) is one of the nine missions under the National Action Plan on Climate Change, which seeks to promote current and future climate change mitigation and adaptation policies in the built environment, including buildings, waste management and transport. The NMSH has been implemented through 4 flagship missions - Atal Mission on Rejuvenation and Urban Transformation (AMRUT), Swachh Bharat Mission, Smart Cities Mission, Urban Transport Programme. Additionally, several policies and programs aimed to decarbonize existing buildings inter alia include, Energy Conservation Building Code, Building Energy Efficiency Programme, Star Rating System for Commercial Buildings; Shunya Labelling Programme, Econiwas Samhita for Residential Buildings; Standards and Labeling Programme; Unnat Jyoti by Affordable LEDS for All (UJALA); Pradhan Mantri Ujjwala Yojana. Government also launched PM Surya Ghar: Muft Bijli Yojana in February 2024 to increase the share of solar rooftop capacity for residential households, which in-turn decarbonizes the Buildings/ Houses.

The Ministry of Housing & Urban Affairs (MoHUA), Government of India has issued Urban and Regional Development Plan Formulation and Implementation (URDPFI) guidelines, ([https://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I\(2\).pdf](https://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I(2).pdf)). The Chapter-6 “Sustainability Guidelines” of URDPFI guidelines 2014 deals with Green Building, Climate Change and Adaptation, Eco sensitive planning and green Buffer zones in Cities. It also covers Energy Efficiency including development of Energy efficient design of Buildings based on Energy Conservation Building Code (ECBC) which provides minimum energy performance standards for energy efficient buildings and promotion of use of Non-Conventional Energy/ Renewable energy and promotion of green Buildings, thereby reducing carbon emissions and Green House Gas emissions.

Ministry has also 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 and covers use of sustainable environment friendly and local building materials based on geo-climatic conditions.

Further, India has also submitted its Long-Term Low Carbon Development Strategy (LT-LEDS) to the United Nations Framework Convention on Climate Change, which puts forth transitions to low carbon development pathways in seven key sectors. One of these transitions includes “promoting adaptation in urban design, energy and material efficiency in buildings and sustainable urbanization”. Key elements of

India's LT-LEDS aiming to promote low carbon development pathways in the Building sector are; (i) to mainstream adaptation measures in urban planning; (ii) to promote measures for enhancing energy and resource efficiency and low-carbon development within urban planning guidelines, policies, and bylaws; (iii) to promote climate-responsive and resilient building design, construction and operation in existing and future buildings; (iv) to pursue low-carbon municipal service delivery through resource efficiency and management of water, solid and liquid waste.

In addition, Ministry of Power has also finalized the guidelines for Energy Service Companies (ESCOs) business models to support energy efficiency improvement of existing buildings. Pilot projects, based on these guidelines, have already been initiated for the large scale deployment of the ESCO business model.
