GOVERNMENT OF INDIA
MINISTRY OF HOUSING AND URBAN AFFAIRS
RAJYA SABHA
UNSTARRED QUESTION NO. 2284
TO BE ANSWERED ON DECEMBER 16, 2024

URBAN HEAT ISLAND EFFECT ON TOP CITIES

NO. 2284. SHRI S NIRANJAN REDDY:

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

(a) whether it is fact that there is 60 per cent increase in warming due to urbanisation alone due to the Urban Heat Island effect, if so, the details thereof and the actions taken by Government;
(b) whether Government has implemented the Climate Smart Cities Assessment Framework (CSCAF) to evaluate the impact of rising temperatures in Indian cities;
(c) the specific cities that have shown the most significant temperature increases, as assessed under this framework; and
(d) the tracking mechanisms in place to monitor urban temperature trends and climate resilience across cities?

ANSWER

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

(a) to (d) : Urbanization contributes significantly to warming in Indian cities through reduced vegetation, heat-retaining construction materials, and increased energy demands. As per 12th Schedule of the Constitution of India, urban planning and development is the function of Urban Local Bodies (ULBs)/ Urban Development Authorities. Government of India supplements the efforts of the States through schematic interventions/ advisories. To combat Urban heat island effect, under Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2,429 park projects worth ₹5,044.28 crore adding 5,044-acre of green spaces has been developed. Under AMRUT 2.0 so far, 1,729 Park projects worth ₹1,027.62 crore have been approved by Ministry of Housing and Urbain Affairs (MoHUA). Under AMRUT 2.0 so far, 3,078 water body rejuvenation projects worth ₹6,159.29 crore have been approved by MoHUA,

- MoHUA has issued the addendum to Model Building Bye-Laws (MBBL) -2016 on "India cooling action plan 2019 as an Advisory to State.

https://www.mohua.gov.in/upload/whatsnew/61b9785b508c3mbbl2016.pdf

- Further, Urban Green Guidelines, 2014 have been released by MoHUA as a guidance document to the states.

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https://www.mohua.gov.in/upload/uploadfiles/files/G%20G%202014(2).pdf

- Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines issued by MoHUA through Chapter 5 - Urban Planning Approach, advocates promotion of Compact and Green city approach to release more land for open spaces/Green spaces and recreation purpose, thereby reducing creation of urban heat islands.

mohua.gov.in/upload/uploadfiles/files/URDPFI Guidelines Vol I(2).pdf

MoHUA launched the Climate Smart Cities Assessment Framework (CSCAF) in 2019 after extensive consultations with all relevant stakeholders. The CSCAF provides a comprehensive assessment of a city's preparedness and response to climate change, focusing on aspects such as energy efficiency, water management, waste management, green cover, and climate adaptation strategies.

As per Cities Readiness Report 3.0 based on CSCAF assessment data (https://niua.in/cscaf)

- 95 cities have prepared disaster management plan including ward-level Hazard Risk, Vulnerability and Capacity Assessment based on NDMA guideline
- 85 Cities are meeting the prescribed URDPFI norm of more than 12% green cover within their municipal boundaries
- 76 cities have allocated a budget for rejuvenation & conservation of water bodies and open areas
- 41 indicated to have either developed or developing their Climate Action Plan

National Communication (NATCOM) Cell, Ministry of Environment, Forest and Climate Change of India (MoEFCC) has informed that as per the 'Synthesis report: Climate Change 2023' of the Assessment Report 6 (AR6) of Intergovernmental Panel on Climate Change (IPCC), human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850-1900 in 2011-2020.

NATCOM Cell has further informed that according to the Third National Communication (TNC) submitted to United Nations Framework Convention on Climate Change (UNFCCC) in 2023, the country's average annual mean temperature during 1901-2022 shows an increasing trend of 0.64°C/ 100 years.

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