GOVERNMENT OF INDIA
MINISTRY OF HOUSING AND URBAN AFFAIRS
RAJYA SABHA
UNSTARRED QUESTION NO. 1029
ANSWERED ON 09/02/2026

IMPACT OF RISING URBAN HEAT STRESS

1029. SHRI KARTIKEYA SHARMA:

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

(a) whether the Government has assessed the impact of rising urban heat stress and heat islands on public health, productivity and quality of life in cities;
(b) details of guidelines or advisories issued to States and Urban Local Bodies for adopting heat-resilient urban planning measures such as cool roofs, urban forests, water bodies and reflective infrastructure;
(c) whether provisions related to heat mitigation and climate resilience are being integrated into schemes such as AMRUT, Smart Cities Mission (SCM) and PMAY (Urban); and
(d) the steps taken and funding for city-level Heat Action Plans to protect vulnerable populations during extreme heat events?

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

(a) & (b) As per 12th Schedule of the Constitution of India, urban planning falls under the purview of the State Governments and the Urban Local Bodies (ULBs)/ Urban Development Authorities at city level. Government of India supplements the efforts of the States through schematic interventions/ advisories. It provides financial and technical support to the States to strengthen Urban Planning ecosystem.

The Government of India undertakes regular scientific assessments of climate trends through the India Meteorological Department (IMD)**,** Indian Institute of Tropical Meteorology (IITM) and other institutions. To reduce loss of life and property from extreme weather events, including heatwaves, several measures have been implemented. These include issuance of seasonal, monthly and extended-range heatwave forecasts, development of a district-wise Heatwave Vulnerability Atlas, preparation of hot weather hazard analysis maps, and conduct of national and state-level heatwave preparedness meetings ahead of and during the summer season. As reported in India's Third National Communication to the UNFCCC, the health sector has operationalized the National Action Plan on Climate Change and Human Health (NAPCHH) under the National Action Plan on Climate Change (NAPCC**)** to strengthen health systems against climate-related risks.

Further, IMD disseminates weather and warning services through digital platforms, including the UMANG app**,** MAUSAM**,** Meghdoot, and Damini mobile applications. The Common Alert Protocol (CAP) of the National Disaster Management Authority is also being implemented for timely dissemination of extreme weather warnings.

NDMA has formulated 'National Guidelines for Preparation of Action-Plan-Prevention and Management of Heat Wave' in October, 2019. The guidelines inter-alia facilitates the heat wave prone States/UT to prepare their Action Plan including for cities/towns to deal with the disastrous heat wave situation. The Heat Action Plans (HAP) has been prepared by 23 states, 195 districts, and 64 cities to deal with heat wave situation.

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The Ministry of Housing & Urban Affairs (MoHUA) has been issuing various advisories and Guidelines to states to combat the challenges of Urban Heat Islands by promoting more green cities, development of green infrastructure, viz.:

i. Urban Green Guidelines, 2014.
https://mohua.gov.in/upload/uploadfiles/files/G%20G%202014(2).pdf

ii. Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines, 2014:
https://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I(2).pdf

iii. The National Mission for Sustainable Habitat 2021-30 report of MoHUA also address the issue for climate change.
https://mohua.gov.in/upload/uploadfiles/files/NMSH-2021.pdf

Urban Planning Approach advocates promotion of Compact and Green city approach to release more land for open spaces and recreation purpose, thereby reducing creation of urban heat islands. To moderate the environmental impacts of urbanization, sustainable ways of planning are required. Urban centers by its conventional form play a significant role in mounting urban heat island. Green city modules such as street orientation in lines with sun direction, prevailing wind direction and use of heat repelling material not only help reduce the impact, but also slow down the gas emissions from artificial cooling systems. Further green spaces within the urban set-up ensures cooling effect and better public interaction spaces, apart from psychological supports in reducing human stress levels.

URDPFI Guidelines provides for Green City Planning Components which addresses measures to be taken under Micro Climate Change such as orientation of streets, creation of water bodies, open spaces and vegetation, semi pervious ground cover, green buildings and solar specific design of buildings and promotion of green roofs.

(c) & (d) Under Atal Mission for Rejuvenation and Urban Transformation (AMRUT), 2,497 park projects worth Rs. 1,576.45 crore has been developed adding 5,277-acre of green spaces. Under AMRUT 2.0, 1,665 park projects worth Rs. 1,117.48 crore and 3,016 water body rejuvenation projects worth Rs. 6,223.48 crore have been approved so far by MoHUA.

Smart Cities Mission has successfully incorporated UHI mitigation into urban development projects, emphasizing smart, sustainable, and green infrastructure. Pune implemented roof top gardens and green spaces under its Smart City projects to reduce urban heating. Bhopal developed Green Corridors and Jaipur introduced cool pavement technology in public places to combat surface heat.

Under PMAY-U, MoHUA supplements the efforts of States/UTs, by providing Central Assistance for pucca houses to eligible urban beneficiaries across the country since 25.06.2015. 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. Building upon progress of TSM, Technology & Innovation Sub-Mission(TISM) supports innovative design and construction practices, promote quality assurance and adopting green building standards for sustainable housing in the country. Projects under the Mission encourage use of resource-efficient, climate-responsive, disaster-resilient and eco-friendly materials and technologies, in line with prevailing green building norms to enhance thermal comfort, reduce energy consumption and minimize environmental impact.

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Government has incentivized States under the "Scheme for Special Assistance to States for Capital Investment" (SSASCI) from 2022-23 onwards (Urban Planning Reforms). This is an innovative scheme to promote sustainable development and combating Climate Change through milestones like, strengthening natural ecosystems of urban areas; sponge city planning; conservation of water bodies; promotion of Blue and Green Infrastructure; development of urban forest area to mitigate Urban Heat Island.

The National Clean Air Programme (NCAP) was launched by the Ministry of Environment, Forest and Climate Change in January 2019 to improve air quality in 130 non-attainment and million-plus cities across 24 States/UTs through coordinated action by Central and State Governments, Urban Local Bodies and other stakeholders. Further, urban greening measures under the National Clean Air Programme (NCAP), including development of micro and mini forests, Nagar Vans, and citizen initiatives like 'Ek Ped Maa Ke Naam', contribute to mitigation of urban heat and reduction of heat stress.

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