

Press Release

**JMI Geography Professor secures Major Research Project from Ministry of Environment, Forest and Climate Change to study the role of water bodies and tree cover in urban heat reduction**

New Delhi, March 6, 2026

The Ministry of Environment, Forest, and Climate Change (MoEFCC), Govt. of India, New Delhi has awarded a major research project to Prof. Atiqur Rahman, Head of Department, Dept. of Geography, Faculty of Sciences, Jamia Millia Islamia (JMI) on the '**Study on the Reduction of Heat due to the Presence of Water Bodies and Tree Cover**' with the project cost of **Rs. 47.46 lakhs**. Three cities of different climatic zone of India i.e. Kolkata warm & humid, Bengaluru-temperate & Udaipur-semi-arid have been selected for this study.

The project is significant in the present times because it has been observed that urban areas are particularly vulnerable to rising temperatures due to the urban heat island (UHI) effect, wherein built-up surfaces, reduced vegetation cover, loss of water bodies, and altered surface energy balance amplify ambient temperature relative to surrounding rural areas. Several cities in developing countries, as well as India are witnessing elevated UHI effects, intensified heat stress, and severely exacerbating thermal discomfort which increases heat risks and climate vulnerability, particularly for the low income and marginalized population.

The main aim of the major project is to study and qualify the role of water bodies and tree cover which play an important role in mitigation of UHI effects and heat stress and function as nature-based solutions (NBSs), through evaporative cooling, shading effects and maintaining surface energy balance.

Further, this study aligns with and will help in achieving National Action Plan on Climate Change & Sustainable Development Goal-11 i.e. make cities and human settlements inclusive, safe, resilient and sustainable in the context of Vision Viksit Bharat, VVB@2047 Mission of Government of India.

The project's Principal Investigator (PI), Prof Atiqur Rahman, is a Professor of Geography, JMI, whose research interest includes urban environmental management, climate change, UHI, water resources and disaster management. He has worked on several major projects like Indo-Germany DST-DAAD project (1999-2002), DST-Young Scientist Project (2001-2004), Member of NASA project on *Urban Ecology and Sustainability* (2004-2007), Indo-Canadian (ICMR-CHIR) project (2010-2015), Ministry of

Environment and Forest project (2009-2012) and NASA project on *Desert Urbanization on Climate* (2012-2015). Prof. Rahman has guided 13 doctoral students, has citations over 9000, has published 18 books and 200 research papers.

Prof. Saima Saeed  
Chief Public Relations Officer



**Prof. Atiqur Rahman**