



WORLD SUSTAINABLE DEVELOPMENT SUMMIT 2024

LEADERSHIP FOR SUSTAINABLE DEVELOPMENT AND CLIMATE JUSTICE

February 7-9, 2024
India Habitat Centre, New Delhi



mahindra LIFESPACES



- Title : **Advancing Sustainable Building Practices: Role of Laboratories and State-of-the-art Infrastructure to Enhance Energy Efficiency & Thermal Comfort**
- Date : 8th February 2024, Thursday
- Time : 1600 hrs – 1730 hrs
- Venue : **Casuarina Hall (Basement Level 1)**, Opposite Stein Auditorium, Entry from Gate No. 3, India Habitat Centre, Lodhi Road, New Delhi - 110003
- Format : Panel Discussion
- Mode : In-person/Hybrid

I. Background:

In the pursuit of a sustainable future, the construction industry assumes a crucial role by embracing inventive approaches that prioritize energy efficiency and thermal comfort in buildings. As the world grapples with climate change and the endeavors to diminish carbon footprints, the importance of sustainable building practices becomes increasingly evident. As per the 2022 Global Status Report for Buildings and Construction (Buildings-GSR), key global trends indicate a remarkable surge in investments in Building energy efficiency, rising to an unprecedented level of 16% in 2021 compared to 2020, totalling USD 237 billion. However, growth in floor space is outpacing efforts on energy efficiency and reducing energy intensity resulting in the sector's total energy consumption (increased by around 4% from 2020) and **CO₂ emissions** increasing all-time high of around 5% from 2020. This means that the disparity between the sector's climate performance and the 2050 decarbonization pathway is widening. India's building industry stands at a critical juncture in its pursuit of decarbonization, facing significant hurdles primarily attributed to the dearth of data. The nation's ambitious commitment to sustainable development, demonstrated by initiatives like the National Action Plan on Climate Change and the Smart Cities Mission, underscores the urgency to reduce carbon emissions. However, the lack of comprehensive and accurate data has emerged as a formidable impediment, hindering effective policy formulation and impeding the implementation of targeted strategies.

Addressing these challenges requires a holistic approach that integrates effective policy formulation, architectural design, engineering and the use of state-of-the-art materials and technologies. Laboratories equipped with advanced infrastructure play a pivotal role in conducting rigorous research and analysis, generating the data necessary to understand the complex dynamics of building emissions and energy consumption. This data forms the bedrock upon which evidence-based policies and tools can be built, facilitating informed decision-making to address the unique challenges faced by India in its pursuit of sustainable and low-carbon building practices.

II. Objectives:

The Sustainable Buildings Division at TERI and Mahindra Lifespace Developers Ltd. will jointly convene a thematic session on “**Advancing Sustainable Building Practices: Role of Laboratories and State-of-the-art Infrastructure to Enhance Energy Efficiency & Thermal Comfort**”. A pool of distinguished experts representing government bodies, academia, green building rating agencies, architects, industry associations and other key stakeholders will engage in the discourse. The discussions would primarily revolve around the following:

- Providing a glimpse of the collaborative initiative undertaken by the Mahindra-TERI Centre of Excellence (MT-CoE) to foster innovation and develop solutions tailored to the Indian building sector and climates.
- Exploring the potential of smart technologies and data analytics for energy management and optimization of building performance.
- Evaluating the latest developments in eco-friendly and energy-efficient building materials.
- Highlighting the importance of performance testing in dedicated building laboratories.
- Analyzing the role of government policies, incentives and regulations that encourage energy-efficient construction and promote sustainable building practices.
- Discussing the importance of human-centric design for enhancing occupant comfort.

(III) Guiding Questions (tentative):

- What is the importance of data analytics in improving building performance and why is it crucial to conduct performance testing in dedicated laboratories?
- Can the integration of smart building technologies serve as a critical tool for enhancing energy management and optimizing building performance?
- To what extent is the Indian R&D sector equipped and ready to make a meaningful contribution to the nation's ambitious goals for decarbonization?
- How do government and private sectors collaborate to foster innovation and develop cutting-edge infrastructure to promote sustainability in the construction industry?

About the World Sustainable Development Summit (WSDS):

The World Sustainable Development Summit (WSDS) is the annual flagship Track II initiative organized by The Energy and Resources Institute (TERI). Instituted in 2001, the Summit series has a legacy of over two decades for making ‘sustainable development’ a globally shared goal. The only independently convened international Summit on sustainable development and environment, based in the Global South, WSDS strives to provide long-term solutions for the benefit of global communities by assembling the world’s most enlightened leaders and thinkers on a single platform. The 23rd edition of the annual flagship event of The Energy and Resources Institute (TERI)—the World Sustainable Development Summit (WSDS)—will be held from 7th February to 9th February 2024 in New Delhi. The Summit deliberations will focus on the umbrella theme: Leadership for Sustainable Development and Climate Justice.