

## **On-Location Training Programme on Climate Resilient Infrastructure, including Disaster Risk Reduction**

### **Program Participants for Nodal Officers of Government Departments**

**Program Duration: 10–12 November 2025**

**Program Coordinators: Shri Prashant Dubey and Dr. Rajni Rajan**

**Venue: Engineering Staff College of India (ESCI), Hyderabad**

The Bankers' Institute of Rural Development (BIRD), Lucknow, in collaboration with the Centre for Climate Change Division, Engineering Staff College of India (ESCI), Hyderabad, conducted a three-day capacity-building programme titled “*Climate Resilient Infrastructure Including Disaster Risk Reduction.*” The programme was designed to enhance the understanding of climate risks, promote resilient infrastructure development practices, and strengthen the institutional capacity of stakeholders engaged in infrastructure planning, financing, and implementation.

The training brought together professionals from diverse sectors, including infrastructure development, environmental management, banking, and policy institutions. The academic sessions covered a broad range of themes central to contemporary climate-resilient development. These included (i) the science of climate change and its implications for infrastructure systems; (ii) methodologies for climate risk assessment, sectoral vulnerability analysis, and risk profiling; (iii) tools, technologies, and modelling approaches used in disaster risk reduction; (iv) evolving standards, design frameworks, and policy pathways for climate-resilient infrastructure; and (v) mechanisms for financing climate-resilient and sustainable infrastructure across sectors.

A key component of the programme was the on-location field exposure aimed at bridging theoretical knowledge with practical application. Participants undertook a structured field visit to **Kanha Shanti Vanam**, which serves as a living demonstration of **sustainable ecosystem management and climate-adaptive infrastructure**. The visit provided insights into integrated **nature-based solutions, including tree conservation initiatives, a tissue culture centre supporting large-scale propagation of diverse plant species**, and the Hearty culture Nursery which exemplifies sustainable horticultural practices.

The site also showcased multiple water management interventions such as **rainwater harvesting systems, wastewater treatment and recycling technologies, and stormwater management structures, highlighting the role of circular and decentralized water systems in resilience planning**. Participants examined **renewable energy installations, including floating and rooftop solar structures, as well as facilities for solid waste management**. In addition, aerated wetlands and advanced wastewater treatment systems were observed as examples of low-carbon, resource-efficient environmental solutions.

The exposure further included an overview of infrastructure designed to withstand climate-induced hazards such as earthquakes, floods, and storms. Demonstrations on tools and methods for risk assessment and infrastructure adaptation strengthened participants' technical understanding of resilient planning approaches.

Overall, the programme emphasized the importance of integrating scientific evidence, technological innovation, and nature-based solutions into infrastructure development frameworks. The programme contributed significantly to building institutional and professional capacities for advancing climate-resilient and disaster-resilient infrastructure in India.



Group Photograph of Director (ESCI), Programme Directors, Faculty Members, and Participants



Group presentation by initiatives taken for the development of Climate Resilient Infrastructure by the participants



Expert Talk by guest faculty Dr. H. Sarvothaman on resilient infrastructure development



Site visit to Kanha Shanti Vanam for Sustainable Infrastructure



Sessions taken on sustainable infrastructure development and measures taken at Kanha Shanti Vanam



Inaugural Session Led by the Director, ESCI through a Keynote Address



Site Visit to Aerated Wetlands and Wastewater Management Model at Kanha Shanti Vanam, Hyderabad



Site visit to Climate-Resilient Water Management Facility with Floating Solar Infrastructure at Kanha Shanti Vanam, Hyderabad