

COURSE SYNOPSIS

Low Carbon Urban Infrastructure Development and Financing

(2 weeks)



Course Introduction, Proposed Dates and Location:

HUDCO's Human Settlement Management Institute (HSMI) proposes to conduct a two week training course for overseas professionals from ITEC partner countries on the theme "Low Carbon Urban Infrastructure Development and Financing". The course is proposed to be conducted from 15th January 2025 – 28th January 2025 at HUDCO's Human Settlement Management Institute, New Delhi.

Programme Rationale:

Infrastructure is a key driver for growth, employment, and better quality of life in emerging markets and developing economies (EMDEs). But this comes at a cost. Approximately 70% of global greenhouse gas emissions come from infrastructure construction and operations such as power plants, buildings, and transport. Does this mean we need to build less infrastructure? No. But part of the solution lies in low-carbon infrastructure. As the name suggests, low-carbon infrastructure generates fewer carbon emissions than traditional infrastructure and helps build resilience in vulnerable countries while protecting against exposure to extreme climate change event. India aims to reach net zero emissions by 2070. The multiplier effect of infrastructure investment in India is as high as 2.5, so smartly investing in infrastructure will help India grow multi-fold in this decade.

While India is urbanising at a rapid pace, it is becoming increasingly difficult for Urban Local Bodies (ULBs) with its limited resource base and inability to mobilise capital to keep pace with this rapid urbanisation. Given the major risks involved, private sector has also largely stayed away from urban infrastructure projects, until very recently. This has resulted in huge gap between the demand and supply of urban infrastructure & basic services. Lack of depth in the financial market, lack of innovation in the design of financial instruments, slow development of alternative sources of finance as well as project quality have continued to challenge the financing of urban infrastructure in the

country. The traditional approach for financing basic infrastructure through grants and loans from government or government-owned financial institutions will not be able to cover the demand for urban finance. States and ULBs have to undertake bold reforms for improving service delivery and urban governance. An important step in this process is capacity building and brain storming of urban development professionals entrusted with the responsibility of formulating and implementing infrastructure projects . This training programme is intended as a step in this direction.

The course addresses a contemporary issue confronting the city planners looking for ways to achieve carbon neutral development. The two week training programme is designed to discuss wide-ranging issues such as provision of climate neutral infrastructure, strengthening resource base of Urban Local Bodies, project financing techniques, innovative financing options for urban infrastructure, risk management of projects, Public Private Partnership (PPP) models, etc. with the help of eminent resource persons and experts working in the urban sector. It will also expose the participants to ongoing urban development programmes and policies of the Govt of India which addresses the broader issue of achieving carbon neutrality.



Aim and objectives of the Programme:

The training is intended to help participants increase their knowledge and learn from and equip them with innovative tools and know-how for designing and implementing appropriate policies, approaches, programmes and interventions for carbon neutral urban infrastructure development.

Objectives of the Programme are:

The training is intended to help participants enhance their knowledge and equip them with innovative tools and know-how for designing and implementing appropriate policies, approaches, programmes and interventions for becoming carbon neutral. The key objectives of the Programme would be :

- Gain an understanding of the impacts of carbon emissions and climate change on Indian cities.
- Understand the challenges and approaches in the development of urban infrastructure in the country .
- Develop an understanding of green infrastructure systems
- Knowledge sharing on various aspects of Municipal Finance and innovative ways of financing green projects.
- Explore emerging and innovative Public Private Partnership (PPP) models for financing urban infrastructure and assimilating risk management strategies for implementing infrastructure projects

Expected Outcomes

At the end of the programme, participants will be able:

- Understand the meaning of net zero and how it could be achieved ;
- To examine the role and tasks of urban managers in the context of planning and implementation of carbon neutral infrastructure projects;
- Analyze approaches followed in achieving net zero commitments by countries represented; and
- Share experiences with urban development managers from other countries.



Eligibility Conditions

This programme is primarily designed for Engineers, Architects, Town Planners, Landscape Architects, Urban Designers, Community Development Professionals, Land Managers, GIS technologists and Urban and Environmental Managers working with national, provincial or urban local governments and other relevant organisations from ITEC partner countries.

- The eligible participants should have at least a relevant bachelor's degree or equivalent in the mentioned disciplines with minimum 5 years of experience.
- Preferred age group : 25-45 years

Programme Contents

This customised full residential training programme for overseas professionals offers an interactive learning environment where participants are stimulated to exchange their experiences and learn from urban development practices in various parts of the developing world, with additional references from other parts of the world as well. The programme stimulates participants to discuss and learn from one another, and it focuses on various aspects of sustainable urban development. Learning is module based , with a module being introduced in each week in the classroom. Theoretical concepts are imparted through class room sessions , and supported with case studies and best practices which are explained by eminent sector experts invited to the class room. Learning is supported with study material, presentations, lectures and group discussions. Local site visits to relevant urban projects are undertaken in all modules to practically demonstrate concepts and add to the participants learning. The outstation study visit includes visit to cultural sites as well as good urban development projects for a holistic learning experience .

The major themes identified for deliberations in the programme includes :

- Climate Change, Carbon Emissions and its impact on Indian Cities
- Urban infrastructure in India: Trends, Issues and Policy frameworks;

- Govt of India Programmes/ Missions/NIP on urban infrastructure
- Rejuvenation of Water Bodies
- Waste management and Circular Economy
- Role of Ragpickers – the unsung heroes in the Waste Recycling Process
- Green Mobility systems
- Green Buildings
- Overview of finances of ULBs and strengthening resource base of cities;
- Innovative financing options for Urban infrastructure & services;
- Municipal Bonds and Green bonds
- Public Private Partnerships and challenges of financing infrastructure;
- Risk Management of infrastructure projects;

Course Faculty

HUDCOs HSMI has a core faculty exclusively for undertaking training, research, documentation and networking activities, who are working with HSMI. Further, eminent sector experts, officers, functionaries and researchers also act as resource persons in various activities. The officers posted in HUDCO Corporate Office and Regional Offices are also a resource pool for HUDCOs HSMI and these officers are continuously guiding and strengthening HUDCOs HSMI by way of sharing their rich practical experience in the field of urban development. The profile of HSMI faculty and external resource persons is being given separately.

USP of the course

Climate change is the greatest threat the world has ever faced in present times and there is need and concern for action to address this among professional and policy makers associated with urban development. In this context, the course is ideally positioned to provide the need for knowledge exchange about carbon neutral infrastructure development . The course will be conducted with the help of subject experts drawn from the field and professionals as well as senior Government of India rank officials who would sensitise the participants about various aspects related to the subject and also provide strategies and action plans for practical use.

