

COURSE SYNOPSIS

Leveraging Resilience for Future Proofing our cities

(2 week ITEC Programme)

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 – Building Resilient Cities: the course is scheduled from 12th November 2025 to 25th November 2025 at HUDCO's Human Settlement Management Institute, New Delhi.

Course Rationale:

In recent years, cities across the globe have experienced a sharp increase in vulnerability to a diverse range of environmental, health and economic crises. Natural disasters, such as floods, droughts, cyclones, and heat waves, have intensified due to climate change, while pandemics like COVID-19 have exposed significant gaps in urban infrastructure and planning. Unprecedented floods, droughts, and increasingly frequent cyclones have caused widespread destruction, displacement, and loss of life. These events have placed immense pressure on urban infrastructure, exposed vulnerable populations, and raised the urgency for cities to be resilient. From managing water resources to improving waste management, building resilient cities is imperative to safeguard livelihoods, reduce disaster risks, and protect the environment. These events have highlighted the urgent need for cities to adapt and build resilience against a growing range of shocks and stresses. The lack of affordable housing, poor infrastructure, and limited access to social services exacerbate the effects of disasters. Global cities face increasing inequalities, exacerbating vulnerabilities and creating barriers to recovery. Resilience planning must include not only physical infrastructure improvements but also strategies that address social equity, inclusion, and economic stability.

The course addresses the global importance of urban resilience in the context of rapid urbanization and climate change. It would help participants to understand the key terms and concepts related to urban resilience, risk reduction, vulnerability, adaptation, and mitigation. It will expose participants to natural and technological solutions for addressing earthquakes, floods as well as strategies to overcome challenges arising out of direct and indirect economic impact of natural disaster along with best practices adopted for financing resilient cities.

Aim of the Course:

The program aims to equip participants with the knowledge and practical tools needed to create cities that are resilient to environmental and economic challenges. It seeks to provide a deep understanding of urban resilience concepts and practices, while fostering a collaborative learning environment that encourages the exchange of best practices and ideas.

Objectives of the Course:

This two-week training program on "Building Resilient Cities" aims to provide participants with the essential knowledge and tools to understand urban resilience and implementation of urban resilience strategies. Over the course of the training programme, participants will explore the core concepts of urban resilience, including its importance in the face of climate change, economic shifts, and social challenges. They will gain insights into key components such as climate, seismic resilience, urban floods man-made disasters, economic, and social resilience, and learn how to analyze vulnerabilities and risks within urban environments. The program also delves best practices for financing resilient infrastructure. The main objectives of the programme are:

- To develop an understanding of the impact of urbanization on the vulnerabilities of cities with regards to disaster
- To acquire skills to assess and map urban vulnerabilities to disasters.
- To develop an understanding of various disasters like urban floods, earthquakes, man-made disasters and explore both technical and nature-based solutions to address disaster.
- To acquire knowledge of green buildings for disaster risk reduction and resilient infrastructure
- To understand the direct and indirect economic impact of disasters and strategies to overcome disasters and identifying mitigation strategies.
- To expose participants to various Urban Resilience programmes in cities.
- To expose the participants to National Urban Livelihood Mission.
- To Explore innovative financing models and tools for supporting urban resilience initiatives.

Course Outcomes:

By the end of this two-week training program on urban resilience, participants will gain a comprehensive understanding of urban resilient cities. Participants will develop an understanding to differentiate between the three key components of urban resilience—climate and economic resilience—and understand how each contributes to ensuring cities remain sustainable amid environmental, financial, and social challenges. During the training sessions, they will develop the skills to assess and map urban vulnerabilities, taking into account environmental risks and socio-economic disparities. Additionally, participants will gain knowledge of disaster preparedness strategies, including risk reduction, early warning systems, emergency response, and recovery planning. They will develop understanding about social vulnerabilities such as poverty, inequality. Participants will acquire a deep understanding of the

principles of economic diversification and financial resilience. They would also develop an understanding of the best practices for financing resilient cities.

Course Contents:

Module 1: Understanding Resilient Cities

This module serves as the foundational introduction to the concept of resilient cities and lays the groundwork for understanding why resilience is crucial in today's rapidly evolving urban environments. A perspective of global frameworks will also be provided including SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION, KYOTO PROTOCOL, and PARIS AGREEMENT ETC. The module emphasizes the growing necessity for cities to be resilient, particularly in the face of challenges like rapid urbanization, resource scarcity, and the increasing frequency of extreme weather events caused by climate change. Using risk mapping and hazard assessment techniques, participants will learn to identify potential disaster hotspots, assess vulnerability factors, and understand the likelihood and impact of various disasters. This allows for more informed decision-making in the design and implementation of resilience strategies. Risk mapping and hazard assessments also help cities prioritize resources and develop mitigation plans. The module will cover the following key areas:

- What are Resilient Cities?
- Characteristics of Resilient Cities
- Why do cities need to be resilient?
- The Drivers of Urban Resilience
- Disaster risk assessment and Mapping Techniques

Module 2: Disaster Resilience & Preparedness

It is designed to provide participants with a comprehensive understanding of disaster resilience and the essential strategies for preparing cities to respond effectively to emergencies. This module focuses on both proactive measures to reduce vulnerabilities and enhance a city's capacity to withstand and recover from disasters. The module involves understanding the concepts of risk reduction, adaptive capacity, and the importance of integrating disaster resilience into urban planning and development. Participants will explore the different types of disasters and how they affect urban systems, infrastructure, and communities. The participants would also be exposed to natural and technological strategies to address disasters. The module will cover the following key areas:

- Urban Floods
- Seismic Resilience
- Man-made Disasters
- Climate change and disaster risk
- Urban Adaptation Strategies
- Mitigation Measures

- Recovery, Reconstruction, and Building Back Better

Module 3: Social and Economic Resilience

The module explores how cities can develop socio-economic resilience by addressing vulnerabilities and strengthening both social infrastructure and financial systems to weather future challenges. The module also talks about best practices for financing resilient cities, showcasing successful case studies from around the world that highlight how cities have secured funding for resilience through innovative approaches and multi-stakeholder collaborations. By the end of the module, participants will be equipped with the knowledge to strengthen socio-economic resilience in their cities. The module will also introduce Innovative Financing Mechanisms for building resilience, beginning with Green Bonds and Climate Bonds, which are financial instruments used to raise funds for projects focused on environmental sustainability and climate adaptation.

- Green Buildings for Risk Reduction
- Resilient Infrastructure
- Direct and indirect impact of disasters
- Session on Indian Policy for Livelihood: NULM
- Innovative Financing Mechanism
- Best Practices for Financing Resilient Cities

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

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:

This two-week "Building Resilient Cities" training program offers a unique opportunity for participants to gain essential knowledge and practical tools for creating cities that can withstand environmental and economic challenges arising out of a disaster. Through a comprehensive curriculum, participants will dive deep into the core concepts of urban resilience, including the impact of climate change, social issues, and economic shifts. The program provides hands-on techniques for analyzing urban vulnerabilities, assessing risks, and implementing effective resilience strategies. By fostering a collaborative learning environment, participants will engage with global best practices and expert-led insights, enabling them to design actionable solutions for building resilient infrastructure. By the end of the course, participants will be fully equipped to lead transformative changes and develop cities that are stronger, more resilient, and better prepared for future challenges.

HUDCO's Human Settlement Management Institute

55TH ITEC Training Programme for Overseas Professionals on

Leveraging Resilience for Future Proofing our Cities

PROGRAMME SCHEDULE

	Session Timings	Session Details	Faculty / Dignitaries
Day 1 Wednesday	9.30–11.00 hrs	Registration, Joining Report and verification of Documents	HSMI Team
	11.00–11.45 hrs	Presentation on Housing and Urban Development Corporation Ltd. (HUDCO) and the Human Settlement Management Institute(HSMI)	Ms Varsha Punhani, Head HSMI
	11.45–12.00 hrs	Tea Break	
	12.00–13.30 hrs	Introduction to Training Programme, Course Contents and Orientation	
	13.30–14.30hrs	Lunch	
	14.30- 15:15hrs	Inaugural Session	Shri Sanjay Kulshrestha, Chairman & Managing Director, HUDCO, Shri M Nagaraj, Director Corporate Planning, HUDCO, Shri Daljeet Singh Khatri, Director Finance, HUDCO, Shri Shailesh Prakash Tripathi, Sr. Executive Director, HUDCO, Ms. Varsha Punhani, Head-HSMI
	15.15–15.30hrs	Tea Break	
	15.30–16.30hrs	FRRO Registration	HSMI Team
	16.30–18.00hrs	FRRO Registration	HSMI Team
Module 1: Understanding Resilient Cities			
Day-2, Thursday	10.00–11.30 hrs	Expanding Cities and Increased Disaster Risk	
	11.30–11.45hrs	Tea Break	
	11.45–13.00hrs	Evolution of International and National Policy Framework from Disaster Management to Disaster Resilience	
	13.00 – 14.00 hrs	Lunch	
	14.00 – Onwards	Visit to places of Historical & Cultural Importance of Delhi	HSMI Team
Day-3, Friday	10.00–11.30 hrs	Introduction to Urban Resilience: An overview <ul style="list-style-type: none"> What are Resilient Cities Why do cities need to be resilient 	
	11.30–11.45 hrs	Tea Break	
	11.45–13.00 hrs	Disaster Risk Assessment and Mapping Techniques	
	13.00–14.00 hrs	Lunch	
	14.00–15:15 hrs	Urban Flooding : contributing factors, lessons learnt and mitigation measures	

	15.15–15:30 hrs	Tea Break	
	15.30–17:00 hrs	Country Presentations	
Day- 4, Saturday	Visit to Agra		
Day- 5, Sunday			
	Module 2: Disaster Resilience & Preparedness		
Day- 6, Monday	10.00 –11.30 hrs	Seismic Resilience	
	11.30 –11.45 hrs	Tea Break	
	11.45 –13.00 hrs	Man-made Disasters	
	13.00 –14.00 hrs	Lunch	
	14.00 –15.30 hrs	Climate Change and Disaster Risk	
	15.30 –15.45 hrs	Tea Break	
	15:45 – 17:15 hrs	Disaster Risk Reduction Initiatives	
Day- 7, Tuesday	10.00 –11.30 hrs	How planning can help in making cities more disaster resilient?	
	11.30 –11.45 hrs	Tea Break	
	11.45 –13.00 hrs	Green buildings for Disaster Risk Reduction	
	13.00 –14.00 hrs	Lunch	
	14.00 – Onwards	Site Visit	
	Module 3: Social and Economic Resilience		
Day- 8, Wednesday	10.00–11.30 hrs	Resilient Infrastructure	
	11.30–11.45 hrs	Tea Break	
	11.45–13.00 hrs	Urban Resilience Programme in Cities	
	13.00–14.00hrs	Lunch	
	14.00–15:30hrs	Session on Indian Policy for Livelihood: NULM	
	15:30-15:45hrs	Tea Break	
	15:45-17:30hrs	Country Presentations	
	28th January 2025 (Tuesday)		
Day-9,10 & 11 Thursday, Friday & Saturday	Outstation Visit		
Day 12 Sunday			
Day 13 Monday	10.00–11.30 hrs	Direct and indirect economic impact of disasters	
	11.30–11.45 hrs	Tea Break	
	11.45–13.00 hrs	Economic Diversification and Financial Resilience	
	13.00–14.00hrs	Lunch	
	14.00–15:30hrs	Innovative Financing Mechanism <ul style="list-style-type: none"> • Green Bonds and Climate Bonds • Resilience Bonds 	

		• Insurance & Risk Financing	
	15:30-15:45hrs	Tea Break	
	15:45-17:30hrs	Country Presentations	
Day 14 Tuesday	10.00–11.30 hrs	Best Practices for Financing Resilient Cities	
	11.30–11.45 hrs	Tea Break	
	11.45–13.00 hrs	Country Presentations	
	13.00–14.00hrs	Lunch	
	14.00–15:30hrs	Valedictory	