

**URBAN
SH/FT**

URBANSHIFT CITY ACADEMY
Urban Biodiversity

UrbanShift 城市学院
城市生物多样性

CHENGDU, CHINA

1-3 July 2025

1-3 七月 2025



DAY 2

Day 2 – Tools to Measure and Value Nature in Cities

第二天 – 测量和评估城市中自然价值的工具

DAY 2 – Agenda / 第二天 - 议程

TIME	SESSION TITLE	DESCRIPTION
09:00-9:15 (15 mins)	Day 2 Welcome	<ul style="list-style-type: none">WelcomeOverview of Day 2 agenda
09:15-10:00 (45 mins)	City Spotlights: Presentations from Participating Cities	<ul style="list-style-type: none">National Institute of Urban Affairs, India [15 mins]<ul style="list-style-type: none">On behalf of GEF-7 Indian citiesMelaka City, Malaysia [15 mins]Q&A [15 mins]
10:00-10:45 (45 mins)	Interactive Exercise: Using Data to Create a New Park in a Hypothetical City – Part 2	<ul style="list-style-type: none">Groups present their proposed park locations
10:45-11:15 (30 mins)		TEA BREAK
11:15-11:45 (30 mins)	Presentation: Nature as Infrastructure	<ul style="list-style-type: none">Conceptualizing nature as critical infrastructure and assigning value to the infrastructural services that nature provides in cities [20 mins]Q&A [10 mins]
11:45-12:15 (30 mins)	Presentation: Introduction to the City Biodiversity Index	<ul style="list-style-type: none">How to use the self-assessment tool to assess and monitor the progress of city-led biodiversity conservation efforts against pre-intervention baselines [20 mins]Q&A [10 mins]
12:15-13:15 (60 mins)		LUNCH BREAK

DAY 2 – Agenda, cont. / 第二天--议程，续

TIME	SESSION TITLE	DESCRIPTION
13:15-13:45 (30 mins)	Post-lunch Energizer	
13:45-14:30 (45 mins)	Presentation: Cost-benefit Assessments for Nature-related Projects	<ul style="list-style-type: none"> • Introduction to city-level cost-benefit assessments for nature (using nature as a proxy for biodiversity) • Illustrate the potential financial return on investment for nature-based projects in cities • Case study: Canal Restoration to Mitigate Flooding and Water Pollution in Kochi, India
14:30-15:00 (30 mins)	Case Study Presentation: Chengdu's Urban Green Heart program	<ul style="list-style-type: none"> • Introduction to the AIPH Green City Awards [10 mins] • Case study presentation: Chengdu's Urban Green Heart program [20 mins] • Q&A [10 mins]
15:00-15:30 (30 mins)	Presentation: Introduction to Natural Capital Valuation	<ul style="list-style-type: none"> • Overview of natural capital valuation and how to use it to estimate the financial value of nature's contributions and incorporate nature into city project design • Case study from an Asian city • Q&A [10 mins]
15:30-16:00 (30 mins)	TEA BREAK	
16:00-17:00 (60 mins)	Interactive Exercise: Conduct Your Own Cost-benefit Assessment	<ul style="list-style-type: none"> • Split participants into diverse groups • Using provided scenarios, brainstorm and discuss costs and benefits • Report back in plenary
17:00-17:15 (15 mins)	Day 2 Wrap Up & Preview of Day 3	<ul style="list-style-type: none"> • Preview of Day 3 agenda • Reminder about site visit

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City Spotlights: Presentations from Participating Cities /

城市聚焦：参与城市的介绍



Building Resilient Cities: Integrating Nature and Biodiversity in Urban Development

INTRODUCTION

India has progressively integrated nature and biodiversity into its urban planning initiatives through a series of policies, programmes and missions.

The associated ministries are -

Ministry of Environment, Forest & Climate Change (MoEFCC)

Ministry of Housing and Urban Affairs (MoHUA)

Ministry of Science and Technology

Ministry of Jal Shakti

- **MoEFCC** is the nodal agency for planning, promoting, **coordinating and monitoring the implementation of environment and forest related policies and programs** within the central administrative structure of the Government of India.
- **MoHUA** formulates policies and monitors programs related to urban housing and development, while the Constitution (under the **74th Amendment) Act, 1992**, delegates many urban development responsibilities to local bodies.
- **MoHUA** coordinates closely with **MoEFCC** on climate-change matters within the **United Nations Framework Convention on Climate Change (UNFCCC framework)**.



Ministry of Environment, Forest
& Climate Change



सत्यमेव जयते

विज्ञान एवं
प्रौद्योगिकी मंत्रालय
MINISTRY OF
**SCIENCE AND
TECHNOLOGY**



सत्यमेव जयते

जल शक्ति मंत्रालय
MINISTRY OF
JAL SHAKTI



सत्यमेव जयते

**Ministry of Housing
and Urban Affairs**

Government of India

OVERVIEW

Policy / Mission/ Framework/Guidelines	Objective / Focus	Nodal Ministry	Urban Missions Linked
National Urban Transport Policy, 2006 & 2014	Sustainable transport; green corridors, NMT integration	MoHUA	Smart Cities
National Policy on Urban Street Vendors, 2004 & 2009	Inclusive public space management, indirectly preserving green spaces	MoHUA	Smart Cities, SBM-U
National Action Plan for Climate Change, 2008	Mitigation and adaptation to the adverse impact of climate change.	MoEFCC	National Mission on Sustainable Habitat + 7
City Biodiversity Index Pilots, 2012	Enabling Urban biodiversity monitoring and action	MoEFCC	Smart Cities
Green India Mission 2014	Increase forest & tree cover in urban/peri-urban areas	MoEFCC	Urban Greening Initiatives, Nagar Van Yojana
National Biodiversity Action Plan (NBAP, 2008, Addendum 2014)	Integration of biodiversity in urban planning; urban biodiversity registers	MoEFCC	Smart Cities, AMRUT for green spaces
Swachh Bharat Mission - Urban (SBM-U) 2014	Waste management; Used water management; Garbage free	MoHUA	Smart Cities, AMRUT, SBM Grameen, Namami Gange, NCAP
Urban Greening Guidelines, 2014	Guidelines for strengthening and preserving the urban greens and green infrastructure	MoHUA	AMRUT, Smart Cities

OVERVIEW

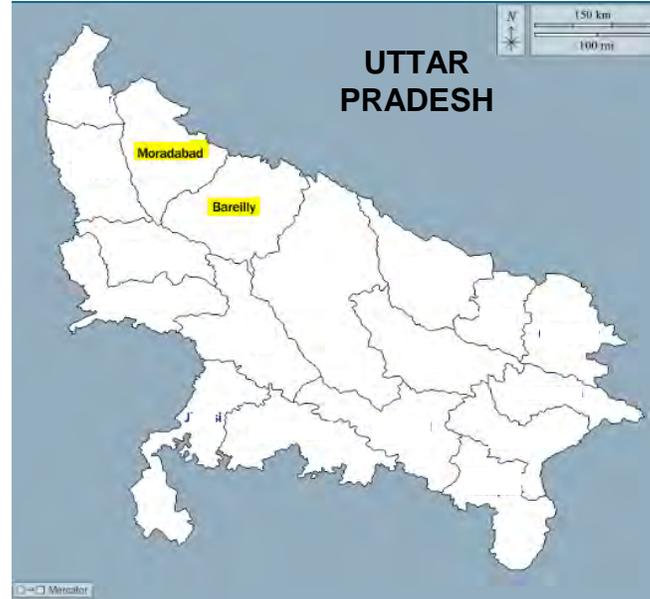
Policy / Mission/ Framework/Guidelines	Objective / Focus	Nodal Ministry	Urban Missions Linked
Namami Gange Riverfront Programs, 2014	River rejuvenation, biodiversity preservation along urban stretches	MoJS	National Mission for Clean Ganga, Smart Cities
Atal Mission for Rejuvenation and Urban Transformation, 2015	Green spaces & park development as essential infrastructure	MoHUA	Linked with Smart Cities
Smart Cities Mission, 2015	Area Based Development with green open spaces, water body rejuvenation, nature-based solutions	MoHUA	AMRUT, Urban Greening Initiatives,
National Clean Air Programme, 2019	Improve air quality - green cover, tree plantation	MoEFCC	Smart Cities, AMRUT
Climate Smart Cities Assessment Framework 2.0 (CSAF 2.0),2019	Encourages climate responsive development to drive climate action in Indian cities	MoHUA	Smart Cities
Nagar Van Yojana (Urban Forestry Initiative),2020	Enhance tree cover and green spaces in urban areas of at least 1 city forest per city	MoEFCC	Smart Cities, AMRUT
Strategy for Conservation of Urban & Peri-Urban Forests, 2021	Conservation and conservation of Urban forests, biodiversity parks	MoEFCC	Nagar Van Yojana, AMRUT
At Project level – UrbanShift India Country Project, 2022	Integrated land-use planning with NBS in TOD, brownfield areas	MoEFCC, MoHUA	Smart Cities

INITIATIVES ACROSS THE COUNTRY

India's urban resilience initiatives-

- Development of Urban River Management Plans (URMPs)
-**Moradabad and Bareilly**
- Ecosystem Based Adaptation Practices - **Bhubaneswar**
- Implementation of City Water Resilience Approach
- **Visakhapatnam**
- Riverfront redevelopment Project - **Agartala**
- Green Mobility Corridor - **Hubli Dharwad**
- Development of a biodiversity park to revive existing wasteland of Kankara Creek - **Surat**
- Redevelopment of Cubbon Park - **Bangalore**
- Bioremediation of Lakes – Revival of Hauz Khas Lake - **Delhi**
- River Centric Master Plan - **Kanpur**
- East Wetland Management Plan- **Kolkata**
- Flood Mitigation Plan- Rejuvenation of the Canal System - **Kochi**
- Climate-friendly, low-carbon development -**Leh and Moradabad**
- Integrated Urban Climate Action for Low-carbon & Resilient Cities
-**Shimla,Coimbatore,Panaji**

PROJECT
Development of Urban River Management Plans (URMPs) with an Implementation Plan for Moradabad and Bareilly through a Multi-stakeholder Process.



OBJECTIVE

To prepare visionary yet practical Urban River Management Plans (URMP) for Moradabad and Bareilly using NIUA-National Mission for Clean Ganga (NMCG's) multi-stakeholder framework.



VISION

To enable sustainable urban river management through participatory and systemic planning for river health improvement.

LOCATION - Moradabad and Bareilly, UP

STATUS - On-going

PROJECT DESCRIPTION

- The **project supports the development of URMPs** for two small river cities along the Ramganga River, based on India's first URMP framework by NIUA and NMCG.
- Through stakeholder engagement and planning, it aims **to address environmental, social, and economic aspects of river health, while strengthening institutional mechanisms and contributing to SDG alignment.**

UNIQUE FEATURES

- First adaptation of the URMP framework for sub-million population cities.
- Focus on **multi-stakeholder participation and institutionalization.**
- **Contribution to replicable models for India's small and medium river cities.**
- Builds **city and state-level capacity** for long-term river management.

PARTNERS

- WWF
- NIUA

PROJECT
Proliferating Ecosystem-Based Adaptation Practices in Indian Cities (EPIC)

VISION
the agenda for Ecosystem-based Adaptations (EbA) solutions as a robust and sustainable approach for water management

FUNDED BY
IUCN under the Global EbA Fund

PARTNERS
Bhubaneswar Municipal Corporation



OBJECTIVE

To create an **enabling environment to mainstream the agenda for Ecosystem-based Adaptations (EbA)** solutions as a robust and sustainable approach for water management.

Seeks to address 2 core challenges faced by most cities i.e. **water scarcity and urban flooding.**

LOCATION - Bhubaneswar, Odisha

STATUS - On-going

PROJECT DESCRIPTION

- The project is being implemented in two phases.
- 1st phase is focused on **designing practical EbA interventions** for flood control and groundwater recharge in Bhubaneswar city.
- 2nd phase is aimed to **scale up EbA practices** within the larger cohort of Indian cities, using learnings and outputs from the first phase.

UNIQUE FEATURES

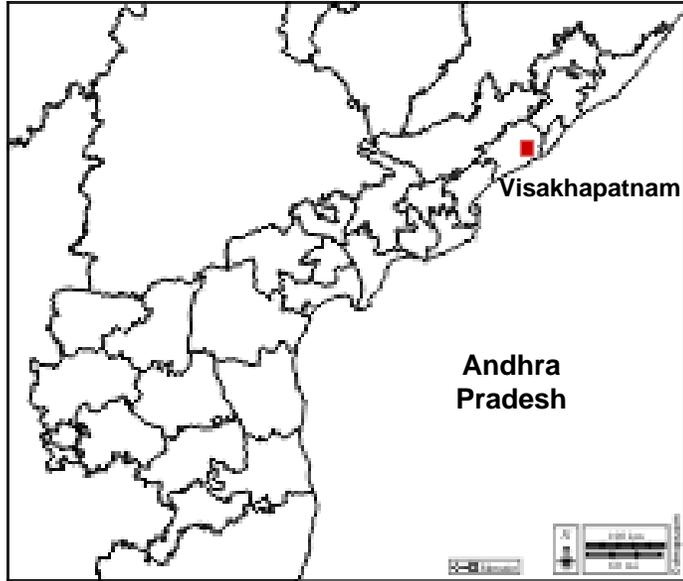
- 3 ecosystems valued under the project.
- 12 flood-prone hotspots addressed through nature-based solutions.
- 35+ cities to be trained in the application of NbS.

PROJECT

Implementation of City Water Resilience Approach (CWRA) in Vishakhapatnam

VISION

To build water-resilient cities by enabling holistic, adaptive, and stakeholder-led water management.



OBJECTIVE

To assess and strengthen urban water systems through resilience indicators, enabling cities to identify gaps and develop

OUTCOME

- Capacity building for CWRA at NIUA and SRU, Vizag.
- A **holistic City Water Resilience Action Plan** for the Vizag city.

LOCATION - Visakhapatnam (Vizag), Andhra Pradesh

STATUS - Completed

PROJECT DESCRIPTION

- Urban areas increasingly face water crisis (e.g., flood risk, drought, sea-level rise, water scarcity, and ecosystem degradation).
- Need for innovative tools to help cities adapt to water-related hazards.
- ARUP, SIWI, The Rockefeller Foundation, and The Resilience Shift have developed a stakeholder-led tool that enables cities to holistically assess their water systems, guide decision-making, and collaboratively build resilience.
- Develop water resilience action plans and strengthen existing water and climate programmes.

UNIQUE FEATURES

- CWRA is developed through a step-by-step process: **mapping the city's water system, assessing resilience** using qualitative indicators, and **identifying gaps** through stakeholder consultations.
- These findings are used to prepare problem statements and prioritize actions based on CWRP indicators.

Source- <https://niua.in/waterandenvironment/crida/>.

PARTNERS

Greater Visakhapatnam Municipal Corporation (GVMC) & Stockholm International Water Institute (SIWI)

PROJECT

Haora
Riverfront
Development
Project

VISION

Developing the riverfront and strengthening the embankments of the Haora river to avoid flooding thereby improving the relationship between the river and the citizens of Agartala.

PARTNERS

- ASCL
- TUPDA
- NIUA



OBJECTIVES

- Strengthen embankments to mitigate flooding.
- Improve water quality through in-situ treatment and control of sewage discharge.
- Create accessible green open spaces and enhance public interaction with the river.
- Promote organic farming for local livelihood support.

LOCATION - Agartala, Tripura

STATUS- On-going

PROJECT DESCRIPTION

- The Haora River, prone to seasonal flooding and polluted by sewage and open defecation, is being revitalized under the CITIIS initiative.
- Embankments are being reinforced and ecological solutions like **in-situ nallah treatment** are being implemented to improve water quality.
- The riverfront will feature public green spaces, walking tracks, and bicycle lanes to reconnect citizens with the river while promoting cleaner, accessible, and livable urban spaces.

UNIQUE FEATURES

- Integrates flood protection, environmental conservation, and urban design.
- Focus on inclusive, green public spaces and non-motorised mobility.
- Supports local livelihoods through urban agriculture initiatives.
- Uses nature-based solutions for water treatment and pollution control.

PROJECT

Rejuvenating Unkal Nala, Hubballi

VISION

To transform Unkal Nala into a resilient ecological and mobility spine, integrating sustainable stormwater management and active public spaces.



OBJECTIVE

- Restore and enhance the natural systems that make the **Nala** a resilient system.
- Create a **decentralized system for stormwater management**.
- **Develop a Non-Motorised Transport (NMT) corridor** with barrier-free access to address urban traffic issues.
- Build an urban open space network with inclusive public amenities and infrastructure.
- Identify and utilise potential zones along the Nala to deliver ecosystem services.

LOCATION - Hubballi-Dharwad, Karnataka

STATUS- On-going

PROJECT DESCRIPTION

- Rejuvenating Unkal Nala, a 9.25 km-long drainage channel that forms the largest drainage system in Hubballi and an essential part of its urban fabric.
- Originating from the overflow weir of Unkal Lake, which once served as the city's main water source, the **Nala is now being transformed from a stormwater drain into a multifunctional, ecological and public corridor**.
- The development includes **integration with major city roads and NMT corridors being developed under other urban missions**.
- Creating a **city-wide network of pedestrian- and cyclist-friendly routes**, contributing significantly to sustainable and inclusive mobility.

Source- <https://citiis.niua.in/projects/HubballiDharwad>.

UNIQUE FEATURES

- **BGI Features:** Wetlands, retention ponds, & line treatments for stormwater filtration.
- **Mobility Access:** NMT corridor with foot-over bridges and bike stations.
- **Gardens:** Thematic and biodiversity focused green zones including herbal, butterfly, and Miyawaki groves.
- **Public Use Areas:** Spaces for recreation, fitness, culture, and community gatherings (e.g., gym, amphitheatre, dhobi ghat).

PARTNERS

- HDSC
- HDMC

PROJECT

Wild Valley Biodiversity Park

VISION

Development of a biodiversity park to revive existing wasteland of Kankara Creek and provide people with green open spaces, through a range of activities.



GUJARAT

OBJECTIVE

- Enhance open public and recreational spaces.
- Increase urban green cover.
- Improve air quality by planting native species.
- Create natural habitats for flora and fauna.
- Enable health-focused activities through walking and cycling infrastructure.
- Mitigate heavy rainfall impact using interconnected water retention ponds.
- Reduce creek odour with fragrant and absorbent species.
- Prevent water pollution through phytoremediation.

LOCATION - Surat, Gujarat

STATUS- On-going

PROJECT DESCRIPTION

- The project aims to **transform the degraded Kankara Creek area into a 212-acre biodiversity park** through afforestation and inclusive public space development.
- Around **600,000 native plants from 85 species will be planted along a 3.5 km stretch**. Recreational infrastructure includes 4.5 km of walking trails and 9 km of cycling tracks, promoting health and accessibility.
- Improve urban biodiversity and air quality & also manage stormwater, reduce odour, and support ecological restoration.

UNIQUE FEATURES

- Large-scale afforestation with native species
- 600,000 plants across 212 acres
- 4.5 km walking trails and 9 km cycling tracks
- Phytoremediation and stormwater retention ponds
- Fragrance planting to counter creek odour
- Inclusive public zones for all age groups

PARTNERS

- SMC
- NIUA
- MoHU A
- ADF
- EU

PROJECT

Protection and Redevelopment of a Botanically Varied Parkland - Cubbon Park

VISION

To preserve Cubbon Park's botanical heritage and transform it into an inclusive, smart, and eco-resilient urban green space with better access and amenities.

PARTNERS

- Cubbon Park
- BBMP
- BSCL



LOCATION - Bangalore, Karnataka

PROJECT DESCRIPTION

- Redevelopment of Cubbon Park under Phases A and B focuses on **enhancing accessibility, environmental sustainability, and visitor experience while preserving its botanical legacy.**
- Key upgrades - **rejuvenation of major water bodies** like the Lotus and Karagada Kunte ponds, **improved footpaths, cycling and jogging tracks**, and infrastructure additions such as smog towers, biogas units, sensor-based waste bins, and rainwater harvesting systems.

Source- <https://surl.li/cgdcci>.

OBJECTIVE

- Upgrade footpaths with **tactile tiles** for **universal access.**
- Develop jogging and cycling tracks.
- **Rejuvenate ponds** (Lotus, Karagada Kunte, dry pond).
- Improve infrastructure: **smog towers, biogas, sensor bins, rainwater harvesting, recharge wells.**
- Add amenities: bamboo café, playscape, yoga zones, senior seating, nature trails.
- **Geo-tag- 9,000 trees** and the plantation of 3,000 native saplings.

STATUS- On-going

UNIQUE FEATURES

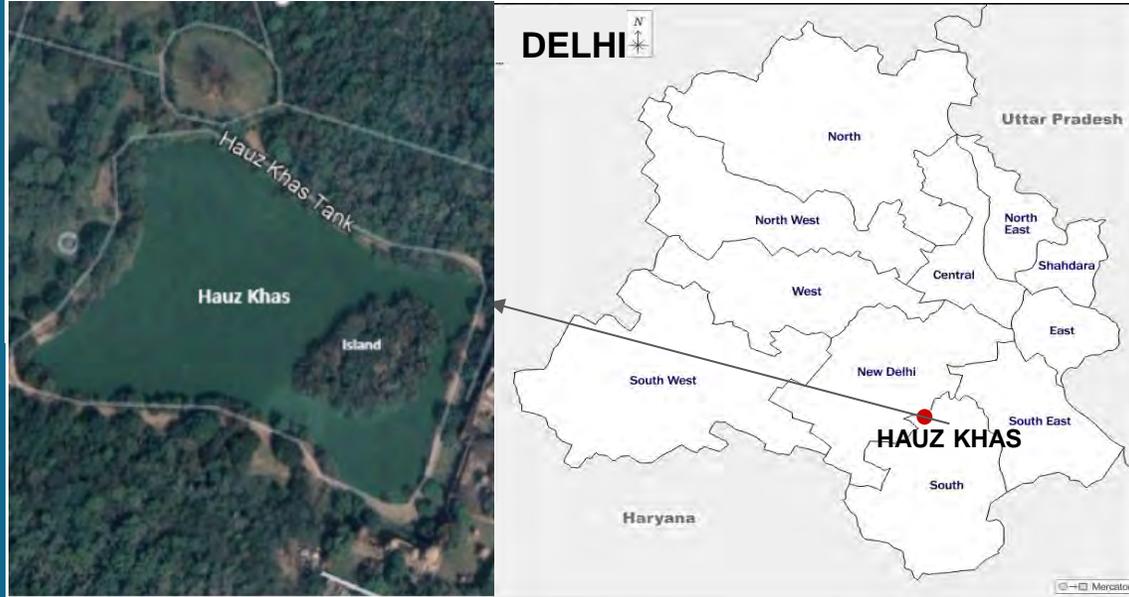
- **Smog tower, QR-based sensor bins, biogas plant.**
- **Bamboo café, play zones, tactile paths, yoga and senior areas.**
- **Water systems: 6 open wells, 70+ recharge wells, no borewell use.**
- **Tree mapping, educational trails with signages.**
- **Smart features added without altering traditional layout.**

PROJECT

Bioremediation of Lakes – Revival of Hauz Khas Lake, Delhi

VISION

To restore ecologically and historically significant lakes using cost-effective, community-led, and sustainable bioremediation methods.



LOCATION - Hauz Khas, New Delhi

OBJECTIVE

- Improve water quality using natural in-situ treatment.
- Remove sludge, odour, and algal growth.
- Involve community in awareness and maintenance.
- Establish artificial wetlands for purification and biodiversity.



STATUS - Completed

PROJECT DESCRIPTION

- Years of neglect and sewage inflow had **degraded Hauz Khas Lake**. DDA, with JM Enviro Technologies, applied Anoxic Bioremediation Technology (ABR), **introducing bacteria to break down sludge and oxidize water**.
- Within a month, **Artificial floating wetlands, purifying over 2 million litres/day, were added to support biodiversity**. Community workshops and training ensured ongoing care.

Source- <https://niua.in/publication-details/17957>.

PARTNERS

- DDA
- RWAs
- JM Environmental Technologies

UNIQUE FEATURES

- Zero-energy ABR using beneficial bacteria.
- Improvement in water quality within 30 days.
- Floating wetlands for filtration and bird habitats.
- Strong community involvement cleaning and awareness.
- Scalable model now used in other Delhi lakes.

PROJECT

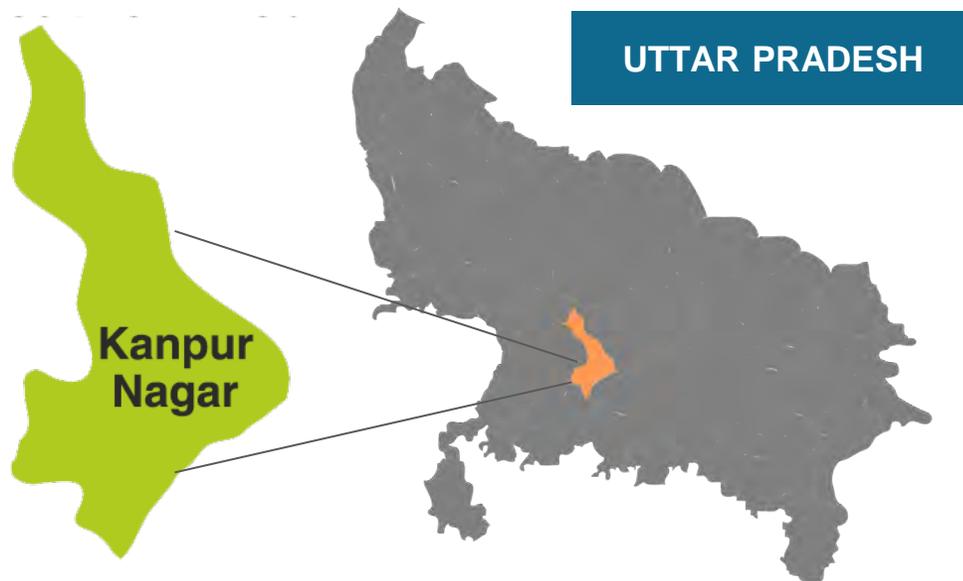
River Centric Master Plan

VISION

To integrate the rivers in the development landscape of the city by aligning with the guidelines of Urban River Management Plan introduced by the Ministry of Jal Shakti under NMCG

PARTNERS

- KMC
- NIUA
- NMCG
- Ministry of Jal Shakti



UTTAR PRADESH

Kanpur Nagar

OBJECTIVE

To prepare a **River Centric Master Plan** addressing water pollution, flood management, and integration of rivers into urban planning, ensuring shared governance and public ownership of natural assets.



LOCATION - Kanpur, UP

STATUS- On-going

PROJECT DESCRIPTION

- Kanpur, located along the Ganga and Pandu rivers, **faces flooding and pollution from industrial waste and population growth.**
- Since River management was not included in the Kanpur Master Plan 2021, a River Centric Master Plan was developed using the URMP framework.
- In 2021, the URMP was published by the Kanpur Municipal Corporation. The process included:
 - Setting up a core working group
 - Baseline assessment
 - Stakeholder workshops to identify challenges and options.

UNIQUE FEATURES

- **19 practical actions identified under 10 objectives.**
- **Multiple funding streams: ULB, missions, grants.**
- **Key flood management actions: Rainwater harvesting, Revival of water bodies and buffer zones, Defined land use for river/floodplain, Solid waste management,**
- **Being replicated in 97 Ganga Basin towns.**

Source- <https://niua.in/publication-details/17957>.

PROJECT

East Wetland
Management
Plan,
Kolkata

VISION

To safeguard the East Kolkata Wetlands (EKW) ecosystem and reduce urban flood risk through integrated and sustainable wetland management.

PARTNERS

East Kolkata
Wetland
Management
Authority
(EKWMA)



WEST
BENGAL



OBJECTIVE

To manage land use, sewage, and solid waste; restore ecosystems and biodiversity; enhance livelihoods; and improve stakeholder engagement in the EKW region.



LOCATION - Kolkata, West Bengal

STATUS- On-going

PROJECT DESCRIPTION

- Kolkata's location along the Hooghly River and Bay of Bengal makes it flood-prone, especially from cyclones and storm surges. The **East Kolkata Wetlands (12,500 ha), a Ramsar site, act as a flood buffer and support integrated aquaculture and agriculture.** However, **unchecked urban growth, pollution, and encroachment have degraded the wetlands, increasing flood vulnerability.**
- A management plan was developed under the EKW Act (Amendment), 2017.
- EKWMA was established as the implementing agency with a **framework for 2021–26 focused on conservation, pollution control, and livelihood improvement.**

UNIQUE FEATURES

- **Pollution Control:** Dredging, waste segregation, plastic recycling; -900 MLD sewage treated.
- **Biodiversity:** Habitat restoration for native species; -3,500 tonnes CO₂ offset yearly.
- **Livelihoods:** Boosted eco-based farming and health centres for local communities.

Source- <https://niua.in/publication-details/17957>.

PROJECT
Flood Mitigation Plan-
Rejuvenation of the Canal System, Kochi



LOCATION - Kochi, Kerala

OBJECTIVE

- Identify causes of flooding across city sectors.
- Improve stormwater drainage capacity through canal restoration.
- Implement structural measures to reduce flood risks



STATUS - Phase 1 & 2 completed

VISION

To restore Kochi's canal system for effective stormwater drainage and enhanced flood resilience.

PROJECT DESCRIPTION

- Kochi's canal system, vital for stormwater drainage, was **obstructed due to waste dumping, encroachments, and undersized culverts, leading to severe urban flooding in 2019.**
- Under '**Operation Breakthrough,**' KMC launched a two-phase flood resilience initiative. Phase 1 formed a technical committee to assess 74 city sections. Phase 2 prioritized desilting, renovation, and encroachment removal across key canals. USD 3.2 million was allocated for structural works, including widening and cleaning canals and rebuilding obstructive culverts.

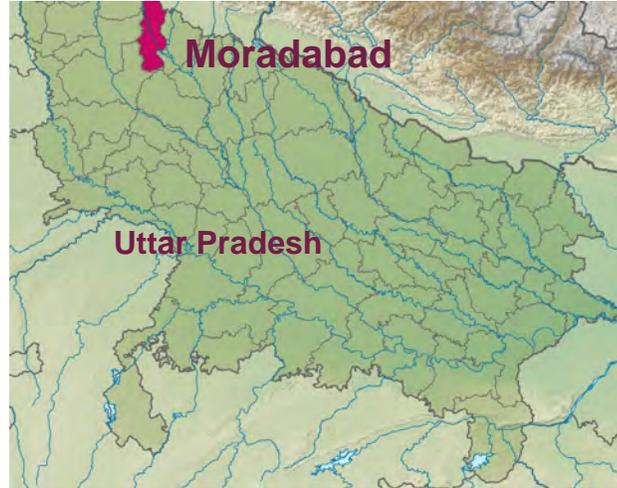
Source- <https://niua.in/publication-details/17957>.

PARTNERS

- KMC
- Govt of Kerala
- Irrigation & Water Deptt

UNIQUE FEATURES

- Technical committee-based planning with multi-agency participation.
- Assessment of 74 sections for targeted interventions.
- Renovation of 6 major canals.
- Measurable reduction in flooding and stagnation post-implementation.
- Continued restoration of additional canals like Mullassery and Thevara-Perandoor.



OBJECTIVE

This project supports Moradabad and Leh in participating in the **One Planet City Challenge** and aims to develop a ‘decision nudging’ tool (**DeCODE NbS**) to guide cities in selecting context-appropriate NbS.



LOCATION- Leh, Ladakh & Moradabad, UP

STATUS - On-going

PROJECT DESCRIPTION

- The **OPCC** by **WWF**, launched in 2011, is a global biennial initiative encouraging cities to adopt climate-friendly, low-carbon development across key sectors like energy, transport, housing, and waste. Cities with the most impactful actions receive international recognition.
- The project seeks to develop a ‘decision nudging’ tool to help cities make an appropriate choice of NbS depending upon the context in which it applied. **The tool has been conceptualized to guide the choice of NbS for reducing urban heat islands, improving air quality, mitigating flood risk, creating green spaces, and enhancing biodiversity, among others.**

UNIQUE FEATURES

- 2 Indian cities, Moradabad and Leh, have officially submitted the relevant data required for being considered in the OPCC.
- 1 **decision nudging tool (called DeCODE NbS)** is being developed.

Source- <https://niua.in/project-details/17870>.

PROJECT
Technical Support to WWF’s One Planet City Challenge (OPCC)

VISION

Support cities in submitting comprehensive, science-based climate strategies and inspire global climate leadership through peer-to-peer learning

PARTNERS

- WWF
- TERI
- UN ESCAP

PROJECT

Urban Act: Integrated Urban Climate Action for Low-carbon & Resilient Cities

FUNDED BY

- GIZ



OBJECTIVE

To promote a 'holistic' and 'integrated' approach for **designing transformative climate actions considering different aspects such as** policy measures, planning instruments, institutional mechanisms, feedback loops, financing, Monitoring & Evaluation, and Learning.



LOCATION - Shimla, Panaji, Coimbatore

STATUS - On-going

PARTNERS

- TERI
- UN ESCAP

PROJECT DESCRIPTION

Regional project implemented in China, India, Indonesia, the Philippines and Thailand.

Project aligns with the nationally determined contributions and the National Mission for Sustainable Habitat. Significant work has been carried out for **infusing climate change consideration into the Urban and Regional Development Plans Formulation and Implementation** (URDPFI guidelines with a view to mainstream climate action within the larger planning paradigm.

Avenues have been identified for strengthening the **vertical synergies between climate action cells at the city and state level**. Climate finance architecture at both national and international levels have also been mapped as a precursor to inform the design of innovative climate financing models.

UNIQUE FEATURES

- **5 countries** (India, China, the Philippines, Thailand, Indonesia) are impacted under the project.
- **3 Indian cities** are implementing climate actions under the project (Shimla, Panaji, Coimbatore).

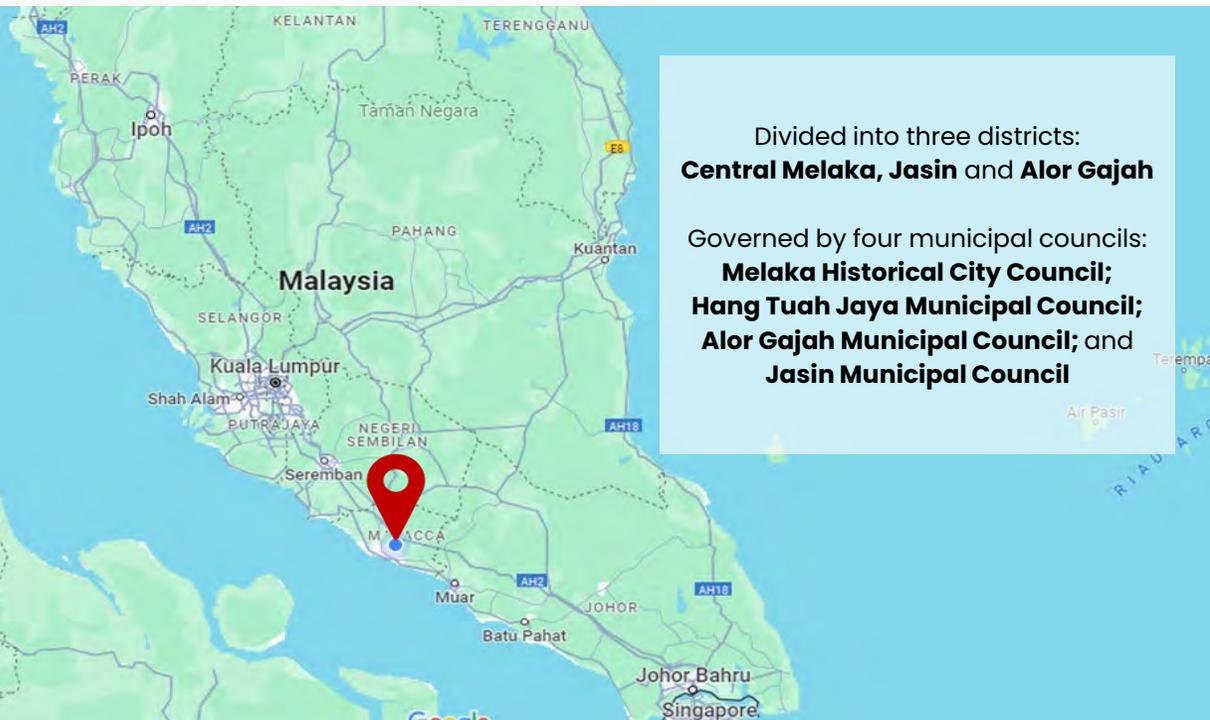
“Greening the Heritage City” Melaka’s Efforts to Integrate Nature & Biodiversity into Urban Development

by: Melaka Green Technology Corporation



Introduction to Melaka

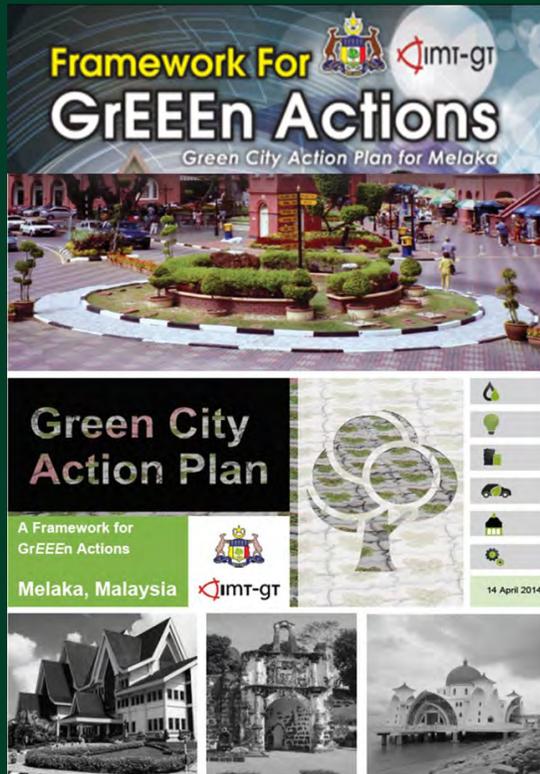
Located on the southwestern coast of the Malaysian Peninsula, next to the Straits of Melaka. Lies between the capital city of Kuala Lumpur, and Johor Bahru. Melaka is one of the smallest of Malaysia's 13 states with an area of approximately 1,663 km².



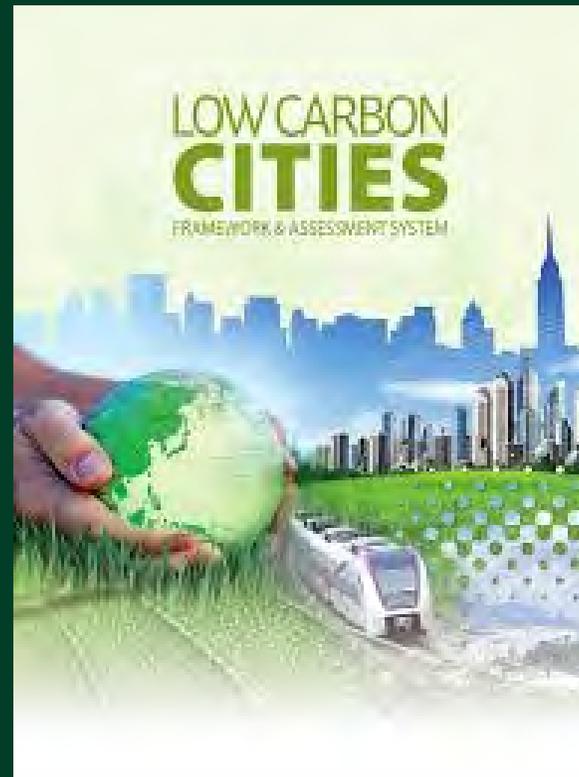
Integrating Biodiversity in Urban Planning



**MELAKA GREEN CITY
ACTION PLAN (GCAP)**



**LOW CARBON CITIES
FRAMEWORK (LCCF)**



LOCAL PLAN (LP)



Notable Projects #1



Melaka River Rehabilitation Project

- Cost – 694 mil MYR (~165 mil USD)
- Project scope:

Water quality improvement through interceptor drains & treatment plants

Riverbank strengthening and flood mitigation

Urban beautification through walkways, decorative structures, and cultural design elements

Promotion of river-based tourism like water taxis and viewing decks



JABATAN PENGAIRAN
DAN SALIRAN MALAYSIA



KEMENTERIAN PERALIHAN TENAGA
DAN TRANSFORMASI AIR



Notable Projects #1



Melaka River Rehabilitation Project



Notable Projects #2



Urban village resilience and greening initiatives

Integrated drainage systems

Pedestrian connectivity

Tree planting and greening



Challenges & Limitations



**Urban development
pressure**



Funding constraints



**Habitat
fragmentation**



Upcoming Initiatives...?



Protection and conservation of existing forests through REDD+ projects in collaboration with Malaysia Forest Fund

- Quantification of carbon stock to track GHG emission reduction
- Preserving ecological function
- Accessing green financing

Climate-adaptive green areas

- Integrating flood-resilient landscape features in new developments
- Reducing urban heat and impact from high precipitation and sea-level rise

Key Takeaways

- Heritage and nature can co-exist in urban landscapes
- Biodiversity integration is key to both urban resilience and GHG mitigation

Thank you
谢谢

Interactive Exercise: Using Data to Create a New Park in PerfectPlace City

互动练习：使用数据在
PerfectPlace City 中创建一个新
公园 - 第一部分

REPORT BACK / 反馈报告

- Each group reports back in plenary / 每个小组在全体会议上汇报。
- You have 5 minutes to share your work / 您有5分钟时间分享您的工作。
- Contemplate the questions asked and the data sources you used / 仔细思考所提出的问题以及所使用的数据来源。



TEA BREAK / 茶歇

