

**RIVER CITIES ALLIANCE**

*A city led movement*



**“RIVER CITIES ALLIANCE”**

*A City Led Movement for Holistic Management of Urban Rivers*

*4<sup>th</sup> May 2023, India Habitat Centre,  
New Delhi*



# Managing Urban Rivers - The Paradigm Shift

From revival measures mainly focusing on pollution abatement measures



To wholesome rejuvenation of rivers and its association eco-system



**VISION**

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION GOVERNMENT OF INDIA

नमामि गंगे myGov मेरी सरकार

*"There is a need for new thinking for 'River Cities'. The river health needs to be mainstreamed into urban planning process."*

NGC meeting, Kanpur, 2019

Cities to be responsible for their stretch of river

Common issues but need targeted solution

Collective responsibility for river rejuvenation



**YAMAMI GANGE**  
NIIA  
National Institute of Urban Affairs

COMPONENTS AND GUIDANCE NOTE  
November 2020

A Strategic Framework for Managing Urban River Stretches in the Ganga River Basin

**URBAN RIVER MANAGEMENT PLAN (URMP)**



Knowledge Base for River Cities to systematically/holistically plan to revive/maintain urban river stretches within city limits

## RIVER CITIES ALLIANCE

A city led movement



A dedicated platform for river cities to work towards a unified vision for river sensitive cities

Joining hands in a collective responsibility towards river rejuvenation



# NMCG's Ganga Mission



*Namami Gange* was launched in June 2015 with the aim of integrating river rejuvenation initiatives in holistic manner with a basin approach. It is a central sector scheme and includes diverse set of interventions



# NMCG - NIUA Partnership - The Urban Agenda

## Urban Agenda

Developing **tools and guidelines** on different aspects of river management



**Building capacities** of the urban centers and providing **technical support**

Creating a **network of cities** and encouraging city to city learning



**Fostering partnerships** for implementation of river-related projects and interventions



# Managing Urban Rivers - Frameworks and Tools



An **integrated** approach to manage the river and its associated elements in a city **sustainably**



Mainstreaming river consideration into the **long-term urban planning** framework

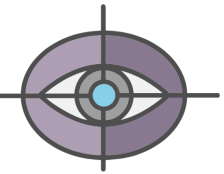


# Urban River Management Plan Framework

## River Development Goals (RDGs)



**ENVIRONMENTAL**  
The river will be able to support a habitat for biodiversity to thrive



**URMP VISION**



**ECONOMIC**  
The river will provide opportunities for economic development



**SOCIAL**  
The river will be celebrated among the citizens

**1**   
**Regulation of Activities in Floodplain** 

**3**   
**Rejuvenate Waterbodies and Wetlands** 

**5**   
**Increased Reuse of Treated Wastewater** 

**7**   
**Eco-friendly Riverfront Projects** 

**9**   
**River-sensitive Behaviour among Citizens** 

**2**   
**Pollution Free River** 

**4**   
**Enhance Riparian Buffer** 

**6**   
**Maximum Good Quality Return Flow** 

**8**   
**Leveraging on the Economic Potential of the River** 

**10**   
**Engage Citizens in River Management Activities** 

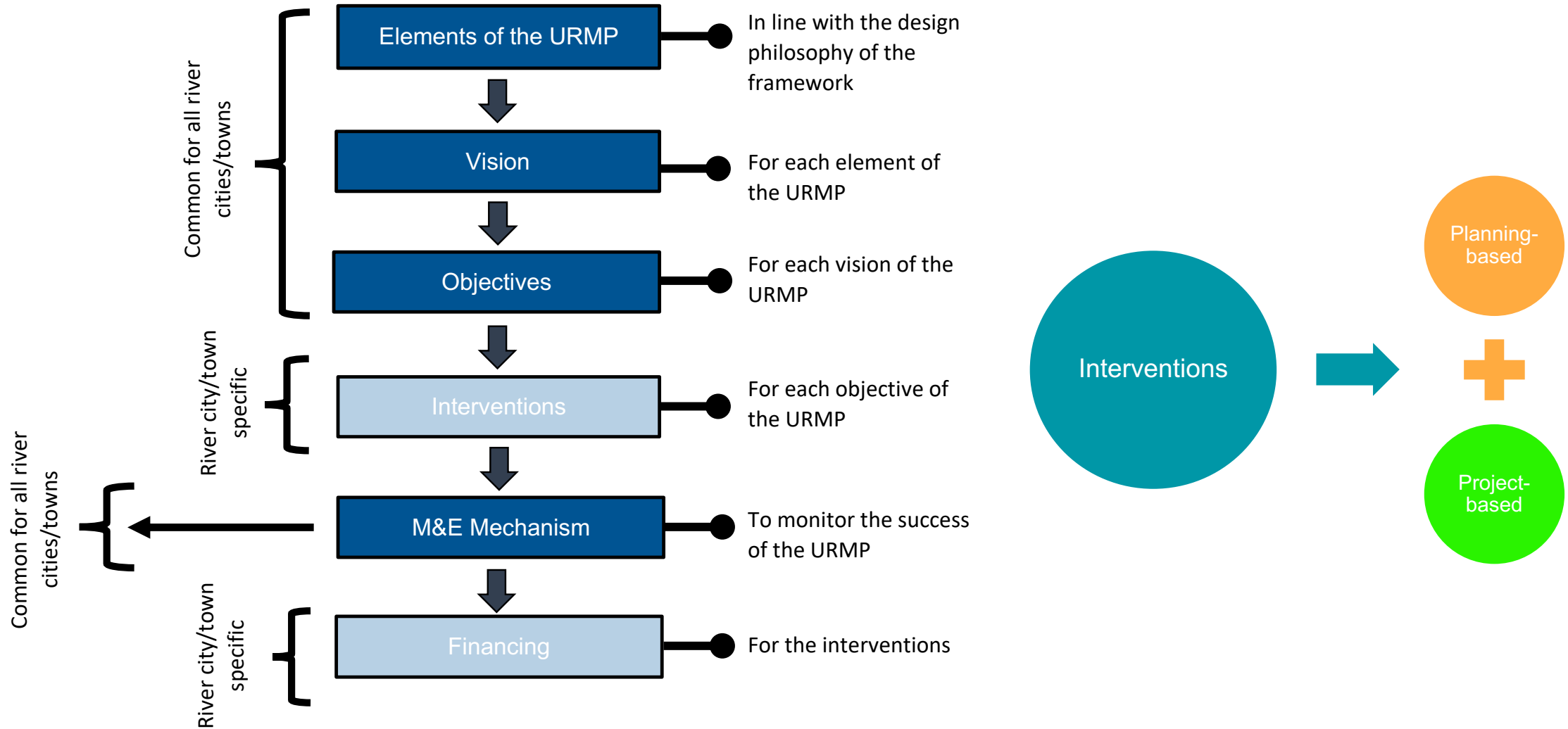
ENVIRONMENTAL

ECONOMIC

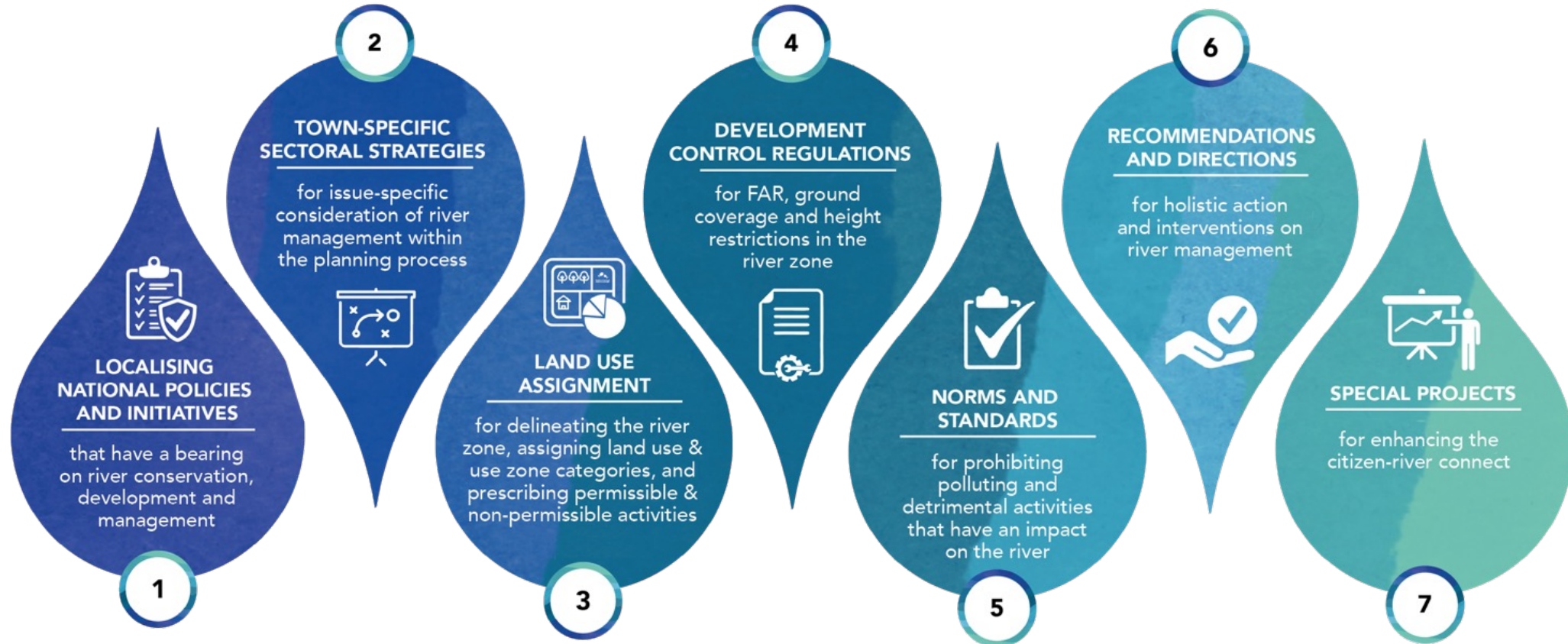
SOCIAL



# Urban River Management Plan Framework



# Making River Sensitive Master Plans





# KANPUR URMP - Interventions



S No.	URMP Objective	Interventions (or projects)	Responsible agency	Estimated Budget (INR)
1	<b>To ensure effective regulation of activities in floodplain</b>	<b>Intervention 1:</b> Enhance river-related development control regulations, planning norms, and bye-laws in the Master Plan 2041	KDA	0
2	<b>To keep rivers free from pollution</b>			<b>2,04,00,000</b>
		<b>Intervention 2:</b> Integrate river water quality information into Smart City Command and Control Centre	KNN	1,00,000
		<b>Intervention 3:</b> Strengthen Faecal Sludge and Septage Management (FSSM) in the city <b>3a:</b> Develop a database of 92,000 households for facilitating FSSM implementation <b>3b:</b> Carry out geo-tagging of 50 desludgers <b>3c:</b> Conduct technical assessment for co-treatment of FSSM at functional STPs	Jalkal Vibhaag Jalkal Vibhaag Jal Nigam	18,00,000 15,00,000 15,00,000
		<b>Intervention 4:</b> Implement DEWATs for 700m stretch of drain in Barra locality in Zone 5.	KNN	1,50,00,000
		<b>Intervention 5:</b> Clear all solid waste along river banks in both Pandu and Ganga Rivers	KNN	5,00,000
				<b>13,70,00,000</b>
3	<b>To rejuvenate waterbodies and wetlands in city</b>	<b>Intervention 6:</b> Develop a comprehensive GIS-based scientific databases for water bodies	KNN and KDA	1,00,00,000
		<b>Intervention 7:</b> Provide a protective boundary fencing for all waterbodies	KNN	8,70,00,000
		<b>Intervention 8:</b> Revive and develop two waterbodies (Mama Talav, Mangla Vihar) as recreational avenues	KNN	4,00,00,000
4	<b>To enhance the riparian buffer along river banks</b>			<b>10,00,000</b>
		<b>Intervention 9:</b> Develop riparian zone along Pandu river in 13 recommended pockets covering 20 hectare land	Forest Dept	10,00,000



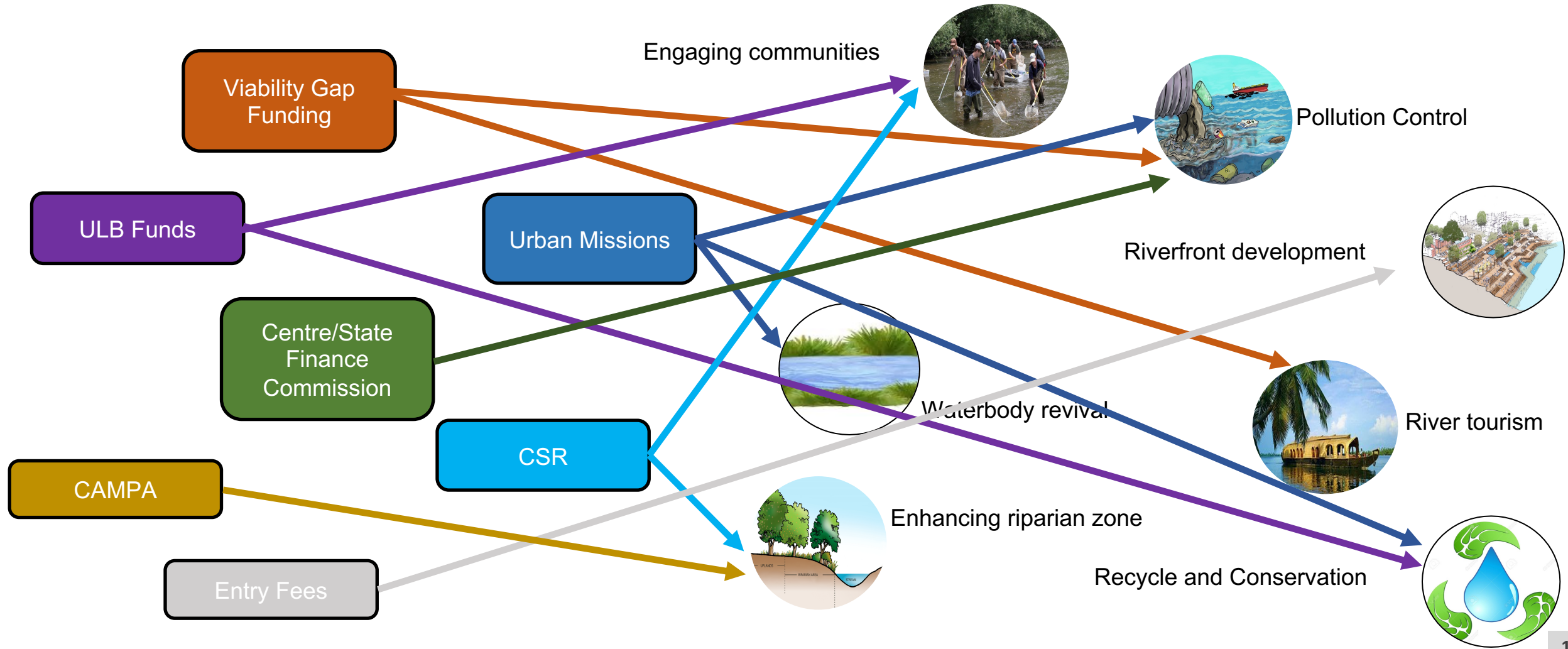
# KANPUR URMP - Interventions



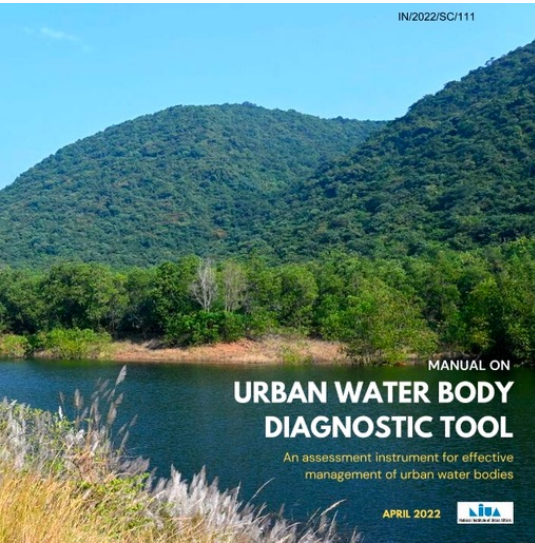
8	<b>To leverage on the economic potential of river</b>	<b>Intervention 15:</b> Develop a floating restaurant facility upstream of the Ganga Barrage (KDA boat club)	KDA	15,00,00,000	<b>35,00,00,000</b>
		<b>Intervention 16:</b> Develop a cultural theme boat ride between Ganga Barrage and Bithoor stretch	KDA	20,00,00,000	
9	<b>To inculcate river sensitive behaviour among citizens</b>	<b>Intervention 17:</b> Develop a dedicated river-based sensitization programme that will include the following <ul style="list-style-type: none"> <li>• Celebrating of river day on annual basis</li> <li>• Organizing competitions for school children</li> <li>• Live performances by youth, local artists on select Sundays</li> <li>• Hoardings, digital displays</li> </ul>	KNN		<b>50,00,00,000</b>
10	<b>To engage citizens in river management activities</b>				<b>50,00,00,000</b>
		<b>Intervention 18:</b> Engaging citizens for river water quality monitoring	KNN	25,00,00,000	
		<b>Intervention 19:</b> Engaging citizens for river clean-up activities	KNN	25,00,00,000	
<b>TOTAL ESTIMATED BUDGET</b>					<b>55,89,00,000</b>



# Financing URMP Interventions

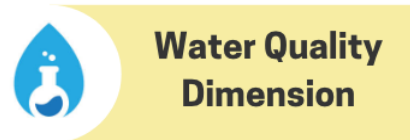


# Knowledge Base on Managing Urban Rivers



## Physical Dimension

To evaluate characteristics that can be determined by senses of touch, sight, smell, and taste.



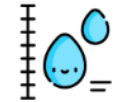
## Water Quality Dimension

To evaluate chemical and biological properties that have a bearing on the health of water bodies



### Indicator 1

Visible surface algal bloom and floating macrophytes



### Indicator 2

Odour



### Indicator 3

Solid waste in the water body



### Indicator 4

Solid waste in the buffer



### Indicator 5

Dissolved oxygen



### Indicator 6:

pH value



## Water Quantity Dimension

To evaluate the change in water availability within the body



### Indicator 7:

Change in surface area of the water body



## Management Dimension

To evaluate the practices followed for management of water bodies



### Indicator 8:

Extent of built-up in the buffer



### Indicator 9:

Vegetation in the buffer



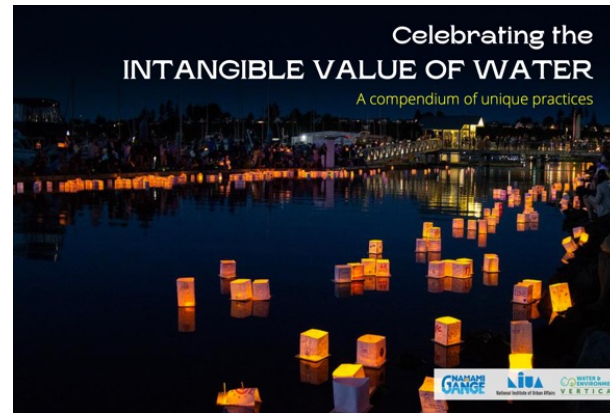
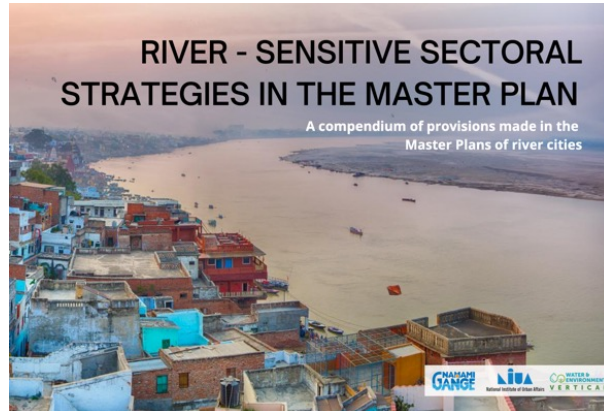
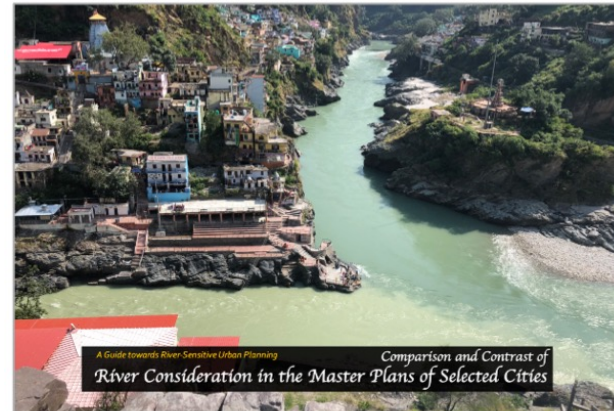
### Indicator 10:

Management protocols

A decision support system for cities to manage the water bodies within their jurisdiction



# Knowledge Base on Managing Urban Rivers



# River Cities Alliance (RCA) - Introduction

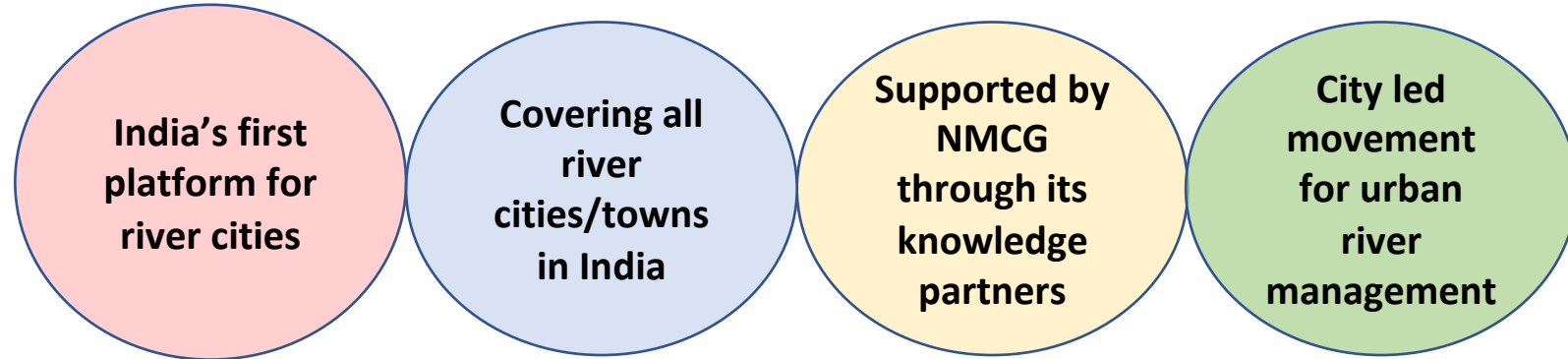
## RIVER CITIES ALLIANCE

*A city led movement*



**A dedicated platform for river cities to work towards a unified vision for river sensitive cities**

Joining hands in a collective responsibility towards river rejuvenation



# RCA - A 112 River Cities Network

## Alliance Member Cities

111 Cities  
14 States



**Uttar Pradesh**  
Varanasi, Kanpur, Prayagraj, Farrukhabad, Mirzapur, Mathura-Vrindavan, Bijnor, Moradabad, Agra, Bareilly, Etawah, Ghaziabad, Gorakhpur, Jaunpur, Kannauj, Lucknow, Shahjahanpur, Saharanpur, Muzaffarnagar, Jhansi, Ayodhya

**Uttarakhand**  
Dehradun, Rishikesh, Haridwar, Srinagar, Kashipur, Nainital, Haldwani, Uttarkashi, Selaqui, Vikasnagar

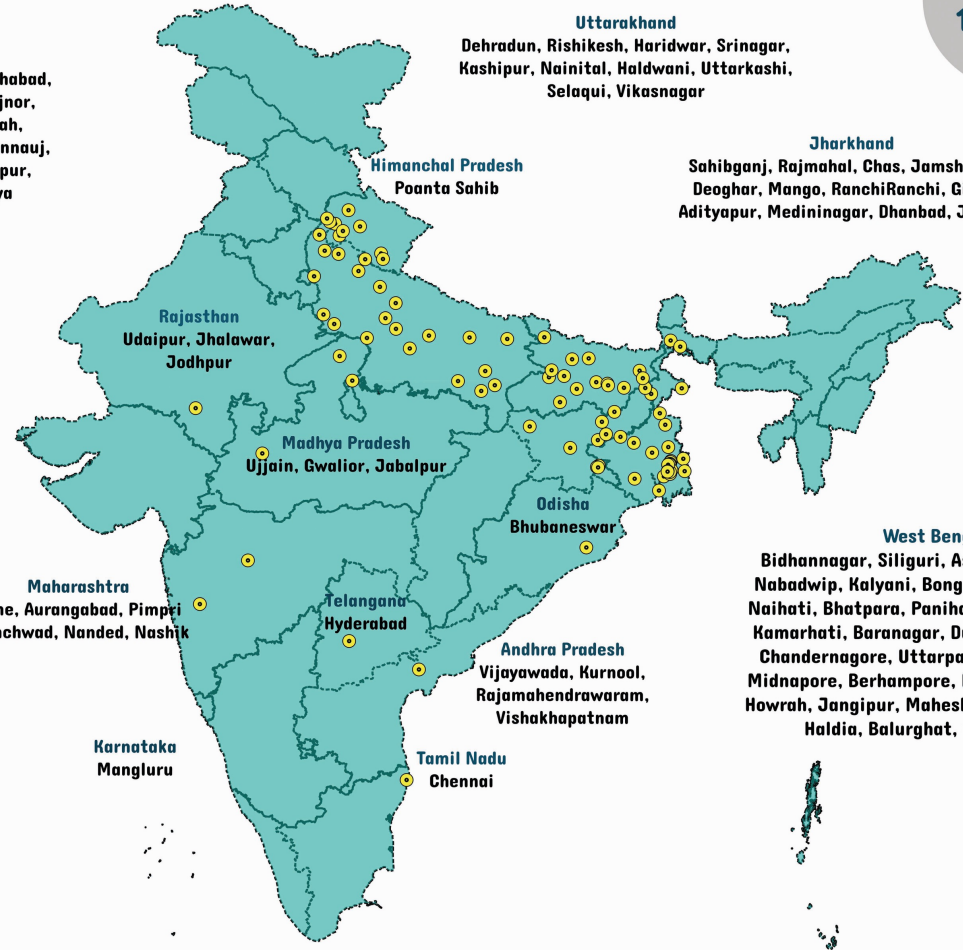
**Jharkhand**  
Sahibganj, Rajmahal, Chas, Jamshedpur, Deoghar, Mango, Ranchi, Ranchi, Giridih, Adityapur, Medininagar, Dhanbad, Jugsalai

**Bihar**  
Patna, Begusarai, Bhagalpur, Munger, Ara, Bettiah, Chapra, Darbhanga, Jamalpur, Muzaffarpur, Gaya, Katihar, Purnia, Bihar Sharif

**Gujarat**  
Vadodara, Surat

**Maharashtra**  
Pune, Aurangabad, Pimpri Chinchwad, Nanded, Nashik

**Karnataka**  
Mangluru

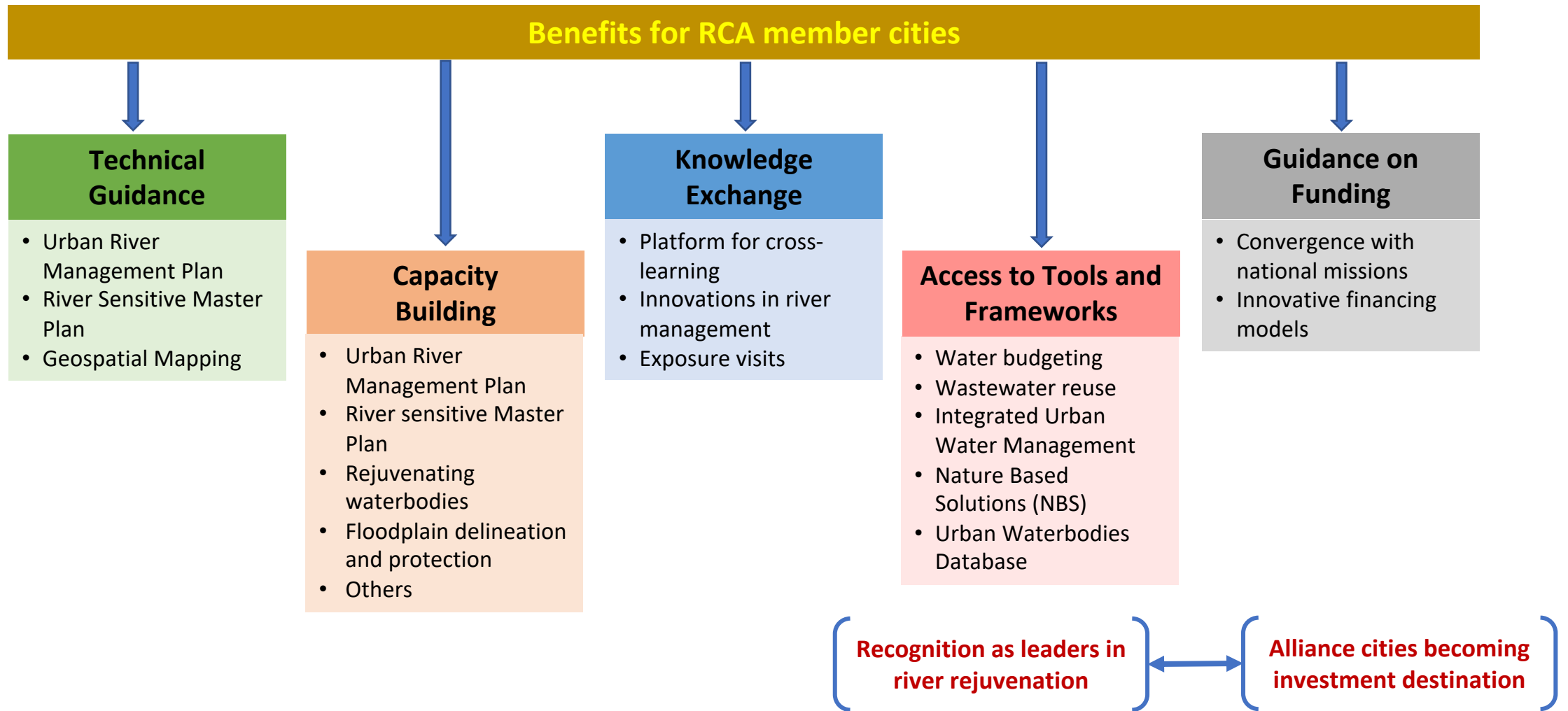


# RCA - Thematic Work Areas






# Why a River City Should join RCA?



# Technical Guidance to Member Cities


## URMPs Prepared

नमो गंगे




niu  
National Institute of Urban Affairs

Urban River Management Plan  
Aurangabad




नमो गंगे




niu  
National Institute of Urban Affairs

Urban River Management Plan  
Ayodhya




नमो गंगे

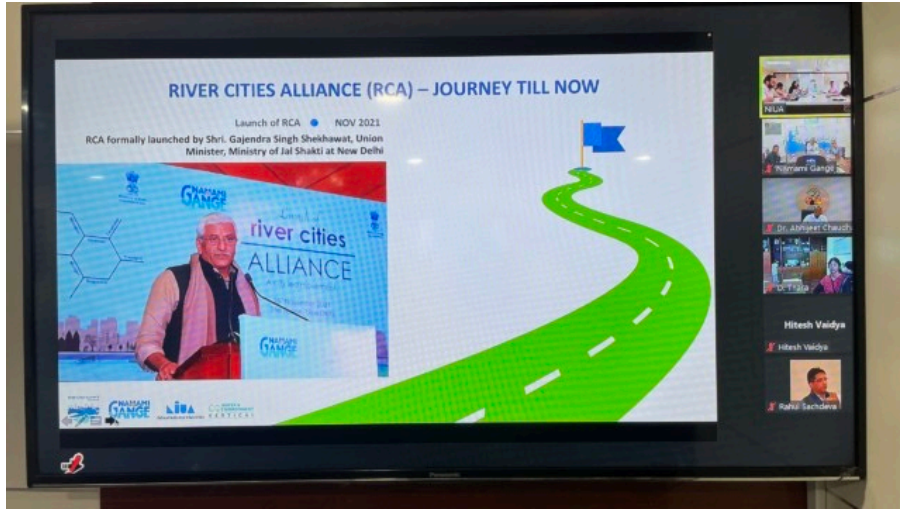


niu  
National Institute of Urban Affairs

Urban River Management Plan  
Moradabad



# Capacity Building



# RCA Website - Knowledge Repository



ALLIANCE CITIES

KNOWLEDGE RESOURCES

CAPACITY BUILDING

NGO CORNER

COLLABORATE WITH US

GALLERY



## The Purpose

The core objective of this platform is to discuss and share experiences for sustainable management of urban rivers.

The supplementary objective is to provide dedicated support to cities as they implement their river management plans.

## Managing Urban Rivers: From Planning to Practice

5-7 MAY 2022  
LUCKNOW



The first training program conducted under the aegis of River Cities Alliance from 5-7 May in Lucknow on Managing Urban Rivers: from planning to practice. Sh. Durga Shankar Mishra, Chief Secretary, Govt. of UP gave the special address to the participants followed by a motivational speech from Sh. G. Asok, Director General, NMCG. The training included a good mix of senior decision-makers such as the Assistant Municipal Commissioner, General Managers, and Additional Municipal Commissioners and technical officials such as engineers, environment officers, project managers, sector experts.

**Participating Cities:** Ayodhya, Bhubaneshwar, Chennai, Dehradun, Farrukhabad, Haridwar, Hooghly-Chinsurah, Howrah, Jangipur, Kanpur, Lucknow, Mathura-Vrindavan, Pune, Rajmahal, Rishikesh, Srinagar, Varanasi, Vijaywada

## Integrating river thinking into Master Plans

27 AUGUST 2021, 18 NOVEMBER 2021, 14-15 JULY 2022




# RCA Newsletter

QUARTERLY NEWSLETTER VOL. 1 | JULY 2022 | SPECIAL LAUNCH ISSUE

## RIVER CITIES ALLIANCE

Updates about the alliance activities



### CONTENTS

**Managing Urban Rivers**

Managing urban rivers is an emerging paradigm in India. The National Mission for Clean Ganga (NMCG) and the National Institute of Urban Affairs (NIUA) along with other partners have pioneered the work in this regard and have created several enabling frameworks and guidance documents for proliferating river-sensitive development in our cities. The stage is now set for on-the-ground action.

As cities start to implement the river-sensitive development agenda, there is a unique opportunity for them to learn from each other, while at the same time inspire others to take up progressive action on this front. The River Cities Alliance (RCA) has been conceptualized to serve as an avenue for precisely this purpose.

**Managing Urban Rivers**


Everything you need to know about the River Cities Alliance

Purpose  
Activities  
Member Cities

**Launch of the Alliance**

**Snapshot of Alliance Cities**

**First Training Programme under the RCA**




QUARTERLY NEWSLETTER VOL. 2 | OCTOBER 2022 |

## RIVER CITIES ALLIANCE

Updates about the alliance activities

*I chatter, chatter as i flow to join the brimming river, for men may come and men may go, but i go on forever*

- Alfred Tennyson



### CONTENTS

**Urban River Management Plan (URMP) for**

- Ayodhya
- Aurangabad


**Onboarding Moradabad city in the River Cities Alliance**

**River Cities Alliance Website**

**Celebrating River initiatives**

**Namami Gange Mission - Key highlights**

**Partner's Corner - The Nature Conservancy, New Delhi**



# Knowledge Sharing Amongst Member Cities

## Synopsis of the



Existing Mula Mutha riverfront



Proposed design of river front by integrating religious heritage and natural landscape (Source - Pune Municipal Corporation)



## 59. RIVERFRONT ACTIVATION AND PLACEMAKING IN PUNE

### PUNE

#### Nature of the Intervention



Integrating cultural heritage in designing riverfronts

#### Location of the Intervention



Pune

#### Implementation Agency



Pune Municipal Corporation

#### Finance



NRCD, JICA soft loan, ULB funds

### Brief description of the Intervention

The Municipal Corporation of Pune is working towards transforming the riverfront into a healthy, vibrant place to live and thrive. Some notable features of the riverfront design include:

- Constructing dedicated tanks for idol immersion, which will remain segregated from the river water.
- Restoring and enhancing the space around temples and dargahs along the riverfront and integrating these spaces in the riverfront design as part of public place making.
- Creating a green continuum along the riverfront by linking existing parks, gardens and other green open spaces.
- Developing 88km of continuous promenade, which can be cycle-friendly and pedestrian friendly, with strategically placed cycle renting booths and parking spaces.

### Unique/Key feature of the Intervention

18 temples, 18 crematoriums and burial grounds alongside the river will be integrated into the project

Developing eco-parks and urban forests

Rainwater harvesting

Groundwater augmentation

Enhancing river-related economy

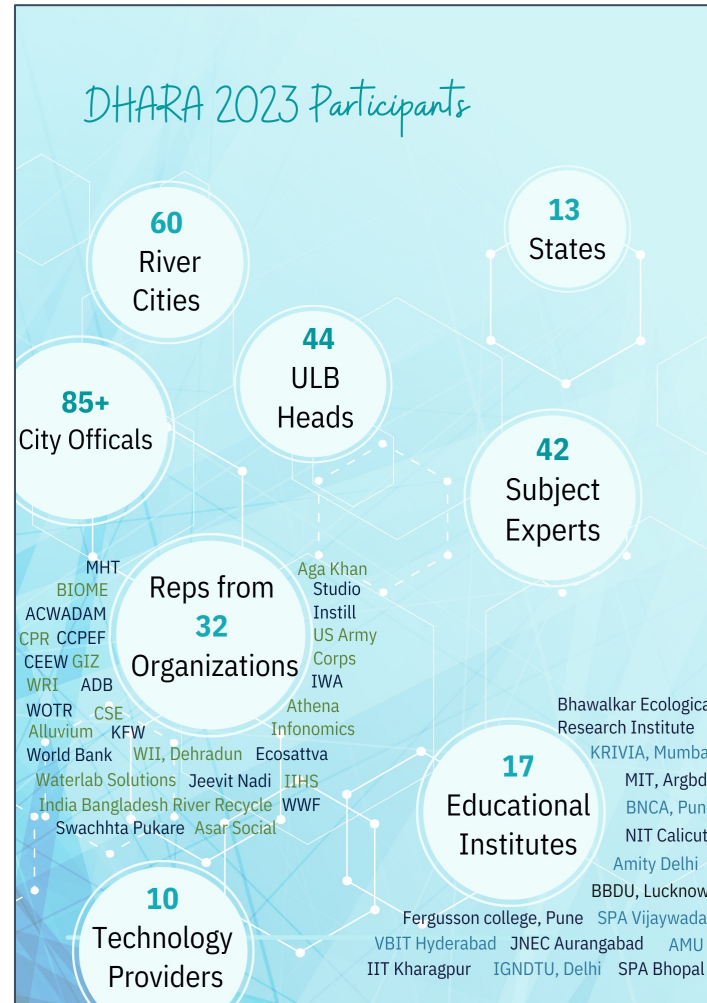


# Driving Holistic Action For URbAn Rivers (DHARA)

## SUMMARY OF PROCEEDINGS

Capturing the glimpses and learnings from the first annual meeting of the **River Cities Alliance**

13-14 February 2023  
Pune, Maharashtra  
India



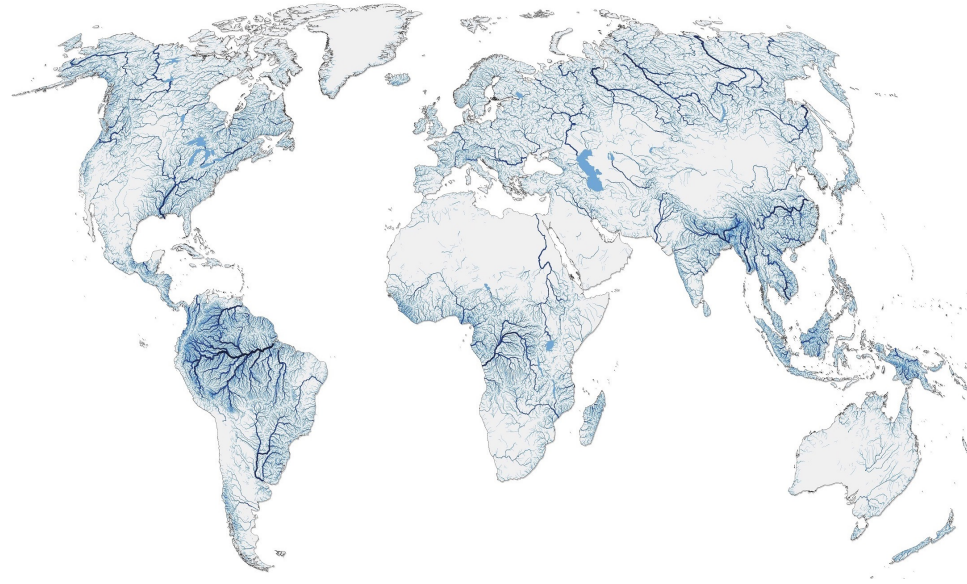
"It is time for us to move towards institutionalizing the Urban River Management mechanism. Moving from plan to implementation, we need an RCA Pact."  
**Kiran Avadhanula, KfW**

"We (ADB) have an ambitious climate finance target of committing 100 billion dollars between 2019 and 2030 on a cumulative basis.  
 We also have a country level strategy named Country Partnership Strategy. It is basically to operationalise the strategy 2030 for each developing country, including India"  
**Hoe Yun Jeong, ADB**

"Instead of fixing the pipes, it is a lot more useful to fix the institutions that build the pipes"  
**Alok Suman, World Bank**



# International River Cities Alliance (IRCA)



## VISION

International River City Alliance ([IRCA](#)) is recognized as a unique platform for global river cities to ideate, network and co-learn to foster river centric development in Urban Areas

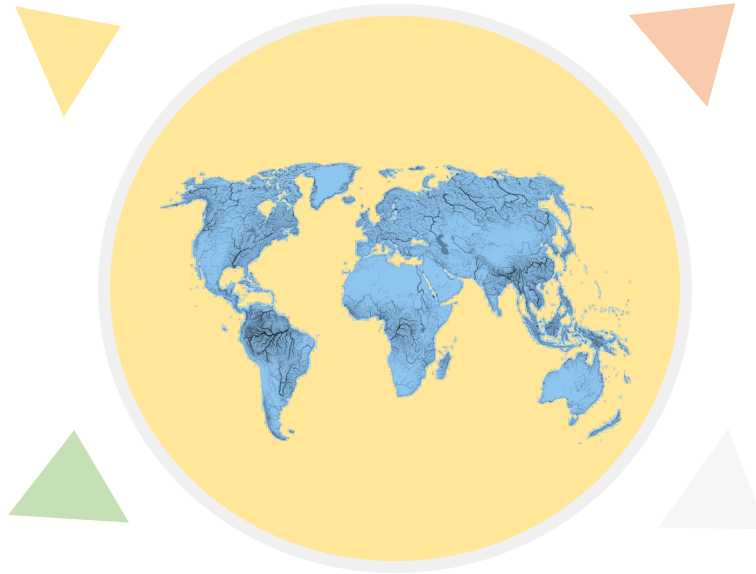




# Role of IRCA

A dedicated platform for global river cities to exchange knowledge on various aspects of urban river management

Create repository of knowledge base and best practices in various thematic aspects of river management

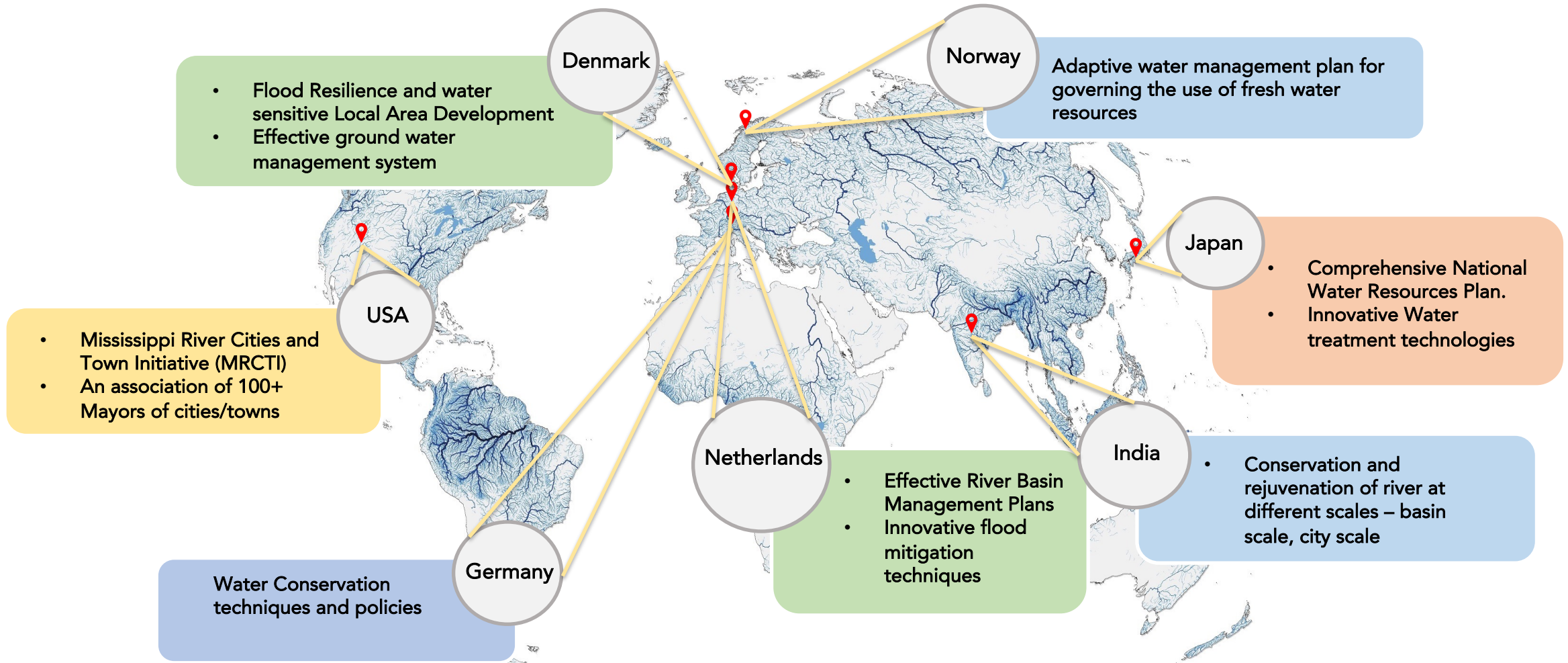


Facilitate bi-lateral river city twinning for sustainable river centric development (urban river stretches)

Provide opportunities for funding agencies to connect with river cities and fund projects



# Expertise for Co-learning from Members



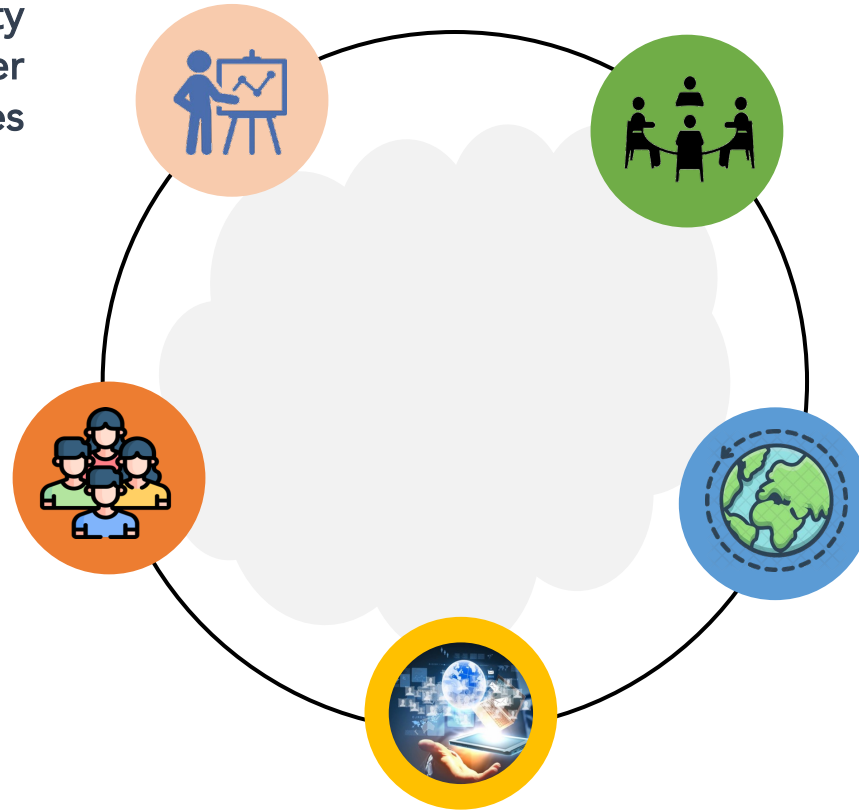
# Activities of IRCA

Host knowledge exchange avenues for the capacity building of other member cities

Knowledge sharing in form of online dialogues, webinars, training programs, exposure visits.

Strengthening the academia and professional ecosystem for 'River Centric development

Showcasing IRCA at international development exchange forum



Contribute to create knowledge base repository on technologies, policies, governance structure etc.





## IRCA Impact



City to city peer learning and improved knowledge through sharing of best practices



Dedicated platform/one stop shop for development agencies seeking opportunities for co-operation on aspects related to river centric development



Market opportunities for international private sector (technology provider) to offer solutions for Indian river cities



# Operational Modalities

Exploratory interactive  
interaction with international  
river cities



Non-financial, non-binding  
association of/for alliance  
member cities

Signing of declaration to be a  
member of IRCA





RIVER CITIES ALLIANCE

*A city led movement*



National Institute of Urban Affairs

## DECLARATION

**Aarhus** is proud to be a member of

**River Cities Alliance**

We are committed to pursue river centric development  
in the city of Aarhus

---

**Aarhus Kommune**

Denmark

*NMCG and NIUA assure full support for the River Cities Alliance*

G Asok Kumar  
Director General, NMCG

Hitesh Vaidya  
Director, NIUA



# IRCA Secretariat



THANK YOU....  
Q&A

